

SOCIETY FOR CONSUMER PSYCHOLOGY
2011 WINTER CONFERENCE FEB 24-26
OMNI HOTEL AT CNN CENTER ATLANTA, GEORGIA



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Naomi Mandel Arizona State University
David Silvera University of Texas at San Antonio
Maura Scott, Doctoral Consortium Co-Chair University of Kentucky

SCP 2011 Atlanta

Welcome to SCP 2011!

We are delighted that you are here in Atlanta to participate in the Society for Consumer Psychology Annual Winter Conference 2011. We were very pleased by the overwhelming number of high quality submissions for the conference from around the world and for the enthusiasm of those of you who participated in the review process. The SCP 2011 conference continues to grow in both size and diversity. We received a record 406 submissions from 205 universities and 25 different countries this year. We have also increased our number of concurrent sessions to 8 (up from 7 in 2010 and 6 in 2009). Over the next several days, we look forward to lively discussion and an active exchange of ideas centered on consumer psychology. The research that you hear about will shape the future of our field.

We would like to extend our sincere thanks to the many reviewers, authors, presenters, discussants and volunteers that helped ensure a terrific conference program in 2011. We are extremely grateful to SCP president L. J. Shrum for his many efforts and assistance throughout the year, and to Larry Compeau for his vision and patience throughout this process. We would also like to thank Maura Scott for her outstanding job in organizing the SCP Doctoral Consortium, which is in its third year and is underwritten by funds from Jane and David Schumann. We also wish to thank Paul Belcastro, Aleksey Cherfas, and Patty Salo Downs for their behind-the-scenes efforts in supporting this year's conference. Finally, we would like to thank our sponsors for their support.

We are very grateful to have such wonderful contributions from so many people for the benefit of the Society. This is truly your conference and we hope you enjoy SCP 2011!

Best wishes,



Naomi Mandel
Arizona State University



David Silvera
University of Texas at San Antonio

**SOCIETY FOR CONSUMER PSYCHOLOGY
2011 SCP ANNUAL WINTER CONFERENCE**

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SESSION 1

8:15am - 9:30am

- 1.1 *Individual Papers:* Money and Risk-Taking (Grand Ballroom A)**
- 1.2 *Individual Papers:* Size Matters: Numerosity, Unit, and Size Judgments (Pine Room)**
- 1.3 *Individual Papers:* Aesthetics in Product and Advertising Design (Birch Room)**
- 1.4 *Individual Papers:* Fluency and Metacognitive Effects (Oak Room)**
- 1.5 *Symposium:* Dissociation from Marketing Artifacts: The Importance of Who You're Not (Spruce Room)**
- 1.6 *Individual Papers:* New Methods for Classifying Consumers and Consumption (Maple Room A)**
- 1.7 *Individual Papers:* Consumer Memory and Judgment (Maple Room B)**
- 1.8 *Individual Papers:* Precursors to Persuasion (Maple Room C)**

SESSION 2

9:45am - 11:00am

- 2.1 *Individual Papers:* Affective Forecasting and the Pursuit of Happiness (Grand Ballroom A)**
- 2.2 *Symposium:* Self-Control Failures: Pain of Payment, Perceptual Distortion, and Resource Depletion (Pine Room)**
- 2.3 *Individual Papers:* The Effects of Art, Music, and Aesthetic Design on Consumer Preference (Birch Room)**
- 2.4 *Symposium:* Grounded Cognition and Consumer Psychology (Oak Room)**
- 2.5 *Symposium:* More than Birds of a Feather: New Mechanisms for Social Influence (Spruce Room)**
- 2.6 *Individual Papers:* Nonconscious and Neural Effects on Buying (Maple Room A)**
- 2.7 *Individual Papers:* The When, Where, and Why of Judgment and Choice (Maple Room B)**
- 2.8 *Symposium:* Visual Advertising: Paths to Persuasion (Maple Room C)**

PLENARY SESSION 1 - Norbert Schwarz, University of Michigan: "Judgment from the Actor's Perspective: Situated, Experiential, Embodied, and Pragmatic"

11:15am - 12:15pm

Grand Ballroom B & C

SESSION 3

2:15pm - 3:30pm

- 3.1 *Symposium:* Dollars and Debt: Financial Decision Making and Consumer Welfare (Grand Ballroom A)**
- 3.2 *Symposium:* Like sands through the hourglass: How temporal perspective affects the way we think, feel and choose (Pine Room)**
- 3.3 *Individual Papers:* Effects of Differing Mindsets on Emotions and Experiences (Birch Room)**
- 3.4 *Individual Papers:* It's Not Me, It's You: Consumer Attributions (Oak Room)**
- 3.5 *Individual Papers:* Me and My Brands: Identity and Product Judgment (Spruce Room)**
- 3.6 *Individual Papers:* Branding and Logo Design (Maple Room A)**
- 3.7 *Individual Papers:* Consumer Spend/Save Decisions (Maple Room B)**
- 3.8 *Symposium:* "If You Want My Opinion...": The Transmission Agent in Consumer Word-of-Mouth (Maple Room C)**

SESSION 4

3:45pm-5:00pm

- 4.1 *Symposium*: How Visual and Verbal Information Cues Interact to Affect Consumer Perception and Behavior (Grand Ballroom A)**
- 4.2 *Symposium*: Gift giving gone wrong: Discrepancies between giver and recipient perspectives lead to suboptimal gift-giving decisions (Pine Room)**
- 4.3 *Individual Papers*: Affect, Motivation, and Consumption (Birch Room)**
- 4.4 *Individual Papers*: Putting the Choice in Context (Oak Room)**
- 4.5 *Individual Papers*: Losing Self-Control (and Getting it Back) (Spruce Room)**
- 4.6 *Symposium*: Using Brands to Convey Who We Are and Who We Want to Be (Maple Room A)**
- 4.7 *Individual Papers*: Consumer Donation and Volunteerism (Maple Room B)**
- 4.8 *Individual Papers*: Consumer Communication and Word-of-Mouth (Maple Room C)**

Working Paper Session 2

6:00pm - 7:30pm

Atrium Terrace A

Saturday, 26 February 2011

SESSION 5

8:15am - 9:30am

- 5.1 Individual Papers: New Discoveries in Pricing (Grand Ballroom A)**
- 5.2 Symposium: Seeing and Believing: The Abstract and Concrete in Consumer Behavior (Pine Room)**
- 5.3 Symposium: A Question of Time: The Interplay between Consumption, Time, and Consumer Outcomes (Birch Room)**
- 5.4 Individual Papers: Gender, Culture, and Age Effects (Oak Room)**
- 5.5 Individual Papers: That's Disgusting! Contamination Effects on Choice and Consumption (Spruce Room)**
- 5.6 Individual Papers: Brands are People Too: The Anthropomorphism of Brands (Maple Room A)**
- 5.7 Symposium: Focusing on the Foregone: Opportunity Costs in Consumer Decision Making (Maple Room B)**
- 5.8 Symposium: Counterintuitive Source Effects on Attitudes and Persuasion (Maple Room C)**

SESSION 6

9:45am - 11:00am

- 6.1 Individual Papers: Framing Effects (Grand Ballroom A)**
- 6.2 Symposium: Beyond Construal: Examining Broad Implications of Psychological Distance and Consumer Judgment (Pine Room)**
- 6.3 Symposium: Unraveling Affective Decision Making: Do How We Pay and How Much We Pay Alter Our Preferences? (Birch Room)**
- 6.4 Individual Papers: New Frontiers in Cultural Research (Oak Room)**
- 6.5 Symposium: From Attention to Brain Processes: The Dynamics of Self-Control from an Interdisciplinary Perspective (Spruce Room)**
- 6.6 Individual Papers: Ethical and Cultural Issues in Branding (Maple Room A)**
- 6.7 Individual Papers: Power and Compensatory Consumption (Maple Room B)**
- 6.8 Individual Papers: The Role of Perceptual Cues in Persuasion (Maple Room C)**

PLENARY SESSION 2 - Robert S. Wyer, Jr., Chinese University of Hong Kong: "The Impact of Mindsets and Procedural Knowledge"

**11:15am - 12:15pm
Grand Ballroom B & C**

SESSION 7

2:15pm - 3:30pm

- 7.1 Individual Papers: Consumer Information Processing, Judgment, and Mental Simulation (Grand Ballroom A)**
- 7.2 Individual Papers: Difficult Decisions (Pine Room)**
- 7.3 Individual Papers: Coping with Ambivalence (Birch Room)**
- 7.4 Symposium: Consequences of Construal Mindsets: Goals, Regret, and Fluency (Oak Room)**
- 7.5 Individual Papers: Status, Power, and Financial Decisions (Spruce Room)**
- 7.6 Symposium: "Now I see what you mean.": Emerging methodologies for revealing consumers' brand meanings (Maple Room A)**
- 7.7 Individual Papers: SCP Dissertation Proposal Competition Award Winners (Maple Room B)**
- 7.8 Symposium: Social Interactions and Social Relationships (Maple Room C)**

SESSION 8

3:45pm - 5:00pm

- 8.1 Individual Papers: Public Policy and Decision Making (Grand Ballroom A)**
- 8.2 Individual Papers: Product Endowment and Valuation (Pine Room)**
- 8.3 Individual Papers: Specific and Mixed Emotions (Birch Room)**
- 8.4 Individual Papers: The Psychology of Mindsets (Oak Room)**
- 8.5 Individual Papers: Eat This, Not That: Helping Consumers Make Healthier Food Choices (Spruce Room)**
- 8.6 Individual Papers: Brand Betrayal, Redemption, and Forgiveness (Maple Room A)**
- 8.7 Individual Papers: Consumer Budgeting of Time and Money (Maple Room B)**
- 8.8 Individual Papers: Persuasiveness in Advertising (Maple Room C)**

Working Papers: Working Paper Session 1

1. Critically Framed Product Placements

Brian Gillespie, Washington State University, USA*

Darrin Taylor, Western Washington University, USA*

To date, product placement research has explored placements in media that are presented in a favorable mode. The present paper explores the effects of product placements presented in a critical mode, that is to say placements that reference brands in an unflattering manner. Analysis of two critical placement studies showed that individuals exposed to critical product placements recognized exposure to the brand as a product placement, but expressed negative attitudes toward the brand. Results support the need for further consideration of critical placements and potential critical placement legal issues, including slander and libel.

For more information contact: briangillespie@wsu.edu

2. Perceived Family Frugal Behaviors: Theory and Measurement

Julie Szendrey, Walsh University, USA*

Michael Bruce, Anderson University, USA

The Perceived Family Frugal Behaviors Scale (PFFBS) was created to measure consumer socialization effects of family frugal behaviors on children within the family. Furthermore, the construct was included in original research relating to undergraduate student frugality. Per Moschis and Churchill (1978), parents/family act as “consumer socialization agents” because they influence the process by which children acquire skills, knowledge, attitudes, and experiences needed to function as consumers. Is there a connection between individual and perceived family frugal behaviors? Using existing theory and scales with research methods to confirm reliability and validity, the PFFBS was developed to measure and test the concept.

For more information contact: jszendrey@walsh.edu

3. *Comprehension of Polysemous Advertisements: A Bilingual's Perspective*

Miguel Angel Zúñiga, New Mexico State University

Ivonne M. Jasso, New Mexico State University

Mihai Niculescu, New Mexico State University*

Consumer ethnic diversity multiplies the challenges for advertisers as the complexity, population, and bilingualism among these consumers increases. This study contributes to bilingual consumer behavior research by exploring the comprehension processes of polysemous advertisements by Hispanic bilingual consumers. It is hypothesized that for bilingual consumers, processing fluency and comprehension will mediate the impact of slogan meaning on A_{ad} , and that NFCC will moderate this relationship. Findings show higher NFCCs are more likely to employ shortcuts and use fluency heuristics than lower NFCCs. Moreover, the lack of resources/motivation drives consumers away from forming favorable attitudes via understanding multiple meanings.

For more information contact: migzungtz@yahoo.com

4. *Consumers under the Influence: Identification and Internalization as Triggers for Endorser Effectiveness*

Sommer Kapitan, University of Texas at San Antonio, USA*

David H. Silvera, University of Texas at San Antonio, USA

What makes a product endorser effective? This review study analyzes four decades of research examining endorser effectiveness and proposes a new framework driven by social influence processes of identification and internalization (Kelman, 1961) to provide an organizational structure for that research. We use this framework to identify gaps in the endorser effectiveness research and propose new directions, such as the need to examine how consumer goals (cued by an advertisement or chronically activated for the consumer) influence processing of endorsement messages.

For more information contact: sommer.kapitan@utsa.edu

5. *Lay Off of My Blue Suede Shoes: Sensitivity to Residue in Possessions*

Sommer Kapitan, University of Texas at San Antonio, USA*

Rajesh Bhargave, University of Texas at San Antonio, USA

What makes heirlooms more valuable for their flaws, and refurbished goods less valuable? The literature documents the intriguing finding that people and objects contain properties that can be invisibly transferred to goods. We propose that individual differences exist in sensitivity to the residue of another's essence or taint found in a previously used possession. This research reveals that consumers who are more sensitive to the residual essence of a previous user are more likely to refurbish used goods from a negative, unknown source, and place a higher value on goods from a positive, familiar source if they are not refurbished.

For more information contact: sommer.kapitan@utsa.edu

6. *The Tense of the Question Matters: Asking about the Past Leads to Personally Normative Future Behavior*

Kate E. Min, Duke University, USA*

Tanya L. Chartrand, Duke University, USA

Gavan J. Fitzsimons, Duke University, USA

This research demonstrates that being asked about future intentions to engage in behavior leads to different behavioral consequences than being asked about behavior engaged in the past. Three experiments found that individuals behave in socially normative ways when asked about the future, and in personally normative ways when asked about the past. We propose that this observed effect occurs because while being asked about the future evokes social norms, being asked about past behavior evokes personal norms, which in turn affects subsequent behavior. Supporting this, we demonstrate that the effect of asking about the past (and evoking personal norms) is attenuated when individuals are reminded of social norms. This research makes novel contributions to understanding how thinking about the future versus the past differentially influences subsequent behavior.

For more information contact: kate.min@duke.edu

7. *Do I Remember More When I Feel Ignorant? When Changing Personal Knowledge Perceptions Affects Memory for Information*

Charles Lebar, HEC Paris, France*

Sandor Czellar, University of Lausanne

Subjective knowledge (SK) refers to consumers' degree of confidence in their personal knowledge in a given domain. The present research investigates the impact of manipulating SK on information processing and retrieval strategies. In a first study, we show that consumer self-esteem moderates the relationship between SK manipulations and different measures of memory for new information. In a second study, we identify moderating mechanisms and boundary effects for the hypothesized effects. Implications of these results are discussed and future avenues for research are provided.

For more information contact: Sandor.Czellar@unil.ch

8. *Unconscious Creativity: Towards Understanding the Impact of Unconscious Mental Processes on Creative Ingenuity*

Haiyang Yang, INSEAD*

Amitava Chattopadhyay, INSEAD

Kuangjie Zhang, INSEAD

Darren Dahl, University of British Columbia, Canada

Building on research on unconscious mental processes, we propose and test that engaging in a secondary distraction task, thus thinking unconsciously, can help people become less constrained by conventional associations and salient constructs, improving creative ingenuity. In experiment 1, we find that participants who deliberated unconsciously generated more novel product usage ideas than those who deliberated consciously. In experiment 2 which involved a different creativity assessment task (i.e., designing a toy), we ruled out a potential alternative explanation and identified an important boundary condition--unconscious mental processes only affected the novelty dimension of creativity, but not the appropriateness dimension.

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9. *Impulse Buying Revisited: The Moderating Roles of Need for Touch and Centrality of Visual Product Aesthetics Scales*

Subhash Jha, University of Memphis, USA.*

S Bharadhwaj, University of Maryland, USA

Pradeep Krishnatray, Mudra Institute of Communication, Ahmadabad, India

Literature on consumer impulsiveness and sensory marketing seem to have lot of commonalities which will help to explain the underlying psychological process of impulse buying behavior. However, there is little empirical research to reflect upon their association with relevant consumer traits, product type and situational factors. Using an experimental approach and a single stage mall intercept survey, we propose to investigate the association of several consumer traits, product characteristics and situational factors with impulse buying behavior. After reviewing the relevant literature, we propose several hypotheses about the main and interaction impact on impulse purchase. Our study promises to make a strong theoretical contribution to the domain of impulse buying by integrating existing emerging sensory marketing literature and suggests possible avenues for future research.

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10. *The Effects of Regulatory Focus and Past Performance Information on Temporal Bias of Future Optimism*

Eunkyung Lee, KAIST Business School, Korea*

Yeosun Yoon, KAIST Business School, Korea

Individuals tend to become more optimistically biased about the future as temporal distance increases. This study demonstrates that this tendency will be moderated by individuals' regulatory focus orientation. We show that the future oriented optimism bias does not hold for prevention-focused individuals. Furthermore, we demonstrate that prevention-focused individuals will begin to exhibit future optimism when they are presented with an option that shows a decreasing performance trend in the past. These effects are mediated by individuals' degree of elaboration about the potential outcome.

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11. *Sensory Appeals in Analogies: Promising Determinant for New Product Acceptance?*

Loredana Viola, WU Vienna, PhD Student*

Monika Koller, WU Vienna

There are multiple reasons for an innovation's failure. However, firms face the most challenges at the moment of product launch. Knowledge on how firms can successfully apply new product launch activities to achieve acceptance of their innovations is of utmost importance. Using analogies is one possible way to help consumers recognize the innovation's benefits. Previous innovation literature only focused on the effects of functional analogies. Neglecting the strength of sensory impressions and emotions in consumption, empirical knowledge on the impact of emotional analogies is missing. Therefore, this study focuses on analyzing the effects of functional and emotional analogies on new product acceptance.

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12. *The Role of Extraversion and Cognitive Constraint in the Formation of False Memory*

Daniel Rubin, CUNY Graduate Center*

Paul M. Connell, Stony Brook University, USA

The purpose of this research was to investigate potential situational and dispositional boundary conditions for false memory formation, which has been found to have important effects in consumption-related situations. We find that introverts produce more false memories than extraverts when processing resources are not constrained, possibly because extraverts utilize "talking to oneself" to enhance memorization. However, extraverts produce more false memories than introverts when processing resources are constrained, possibly because "talking to oneself" is inhibited.

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13. *What Affects Your Purchase Intent: Brand Name Or Price?*

Heather Hilgenkamp, Kansas State University*

Jisook April Park, Kansas State University*

Gary L Brase, Kansas State University

The effects of brand name and price on consumers' purchase intent was investigated by using a 3(brand label) x3(actual product) x3(price) within-subjects design. Forty-one participants from a Midwestern university "tried" different facial tissues and rated their purchase intent on a 1 to 9 Likert scale. Whereas one brand (A) was rated highest, a different brand (B) was rated highest for actual product quality (when blind to brands). The cheapest price (regardless of brand) had the highest purchase intent. The implication that brand name, actual product quality, and price are interrelated is supported by an analysis that shows a three-way interaction.

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14. *I've Got the Feeling: A Consumer's Psychophysiological Responses to Brand Placement*

Janee Burkhalter, Saint Joseph's University, USA*

Adriane Randolph, Kennesaw State University, USA*

Brand placement is an increasingly popular topic of marketing and communications scholarship. Research has been conducted concerning consumers' implicit and explicit reactions to brand placement with respect to both memory and behavior. However, there is still great opportunity in this research area. This study seeks to address gaps in the brand placement literature by employing neuromarketing techniques to measure consumers' emotional responses to brand placements in an understudied entertainment outlet – music videos. Through analysis of electroencephalographic recordings, we found that a music video clip generated a higher emotional response than a television clip containing the same brand of luxury SUV.

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15. *Is There More to the Effect of Color, Apart from its Tone? Effects of Product Package Color on Risk Perceptions and Quality Judgments*

Man Ching Kwan, Hong Kong Baptist University*

Ping Dong, The Chinese University of Hong Kong*

If a product physically exists, it bears “color” on its package. The color effect is subtle but ubiquitous. Based on the color framework proposed by Gorn and colleagues (1997), this study examines the effect of all color dimensions (i.e. hue, chroma and value) on quality perceptions, and the mediating effect of color-eliciting risk perceptions. Our experiment findings suggest that risk perceptions fully (partially) mediate the effect of chroma (value) on quality perceptions, while the effect of hue on both risk and quality is nonsignificant. Theoretically, this study enhances our understanding about the color effect by exploring a cognitive response – risk. It also highlights the importance of balancing different color dimensions and provides useful tactics for practitioners.

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16. *The Effect of Corporate Social Responsibility (CSR) and Perceived Consumer-Company Identification on Perceived Brand Extension Fit*

Yeosun Yoon, KAIST Business School, Korea

Minkyong Kwon, KAIST Business School, Korea*

Despite the importance of fit between a company and a CSR activity in evaluating the CSR activity, little is known about what factors influence perceived fit. Extending the brand extension literature to a CSR context, we identify two factors of perceived fit: brand concept consistency and product feature-based similarity. This article highlights that the relative effect of two factors on the CSR activity evaluation differs depending on consumer-company identification. Because identification facilitation leads to increased importance of brand concept consistency, consumers with high identification evaluate the CSR activity by relying more on concept consistency. Alternatively, consumers with low identification rely more on feature similarity. The results also indicate the positive effect of the CSR activity on nonprofit organization evaluation.

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17. *Ideological Differences in Consumption Decisions*

R. Adam Farmer, University of Kentucky, USA*

The current research expands our current knowledge of consumers by focusing on an area of increasingly greater interest in both psychology and marketing—political ideology. Ideological differences are at the core of consumer thinking and, as such, should shed great light on consumption decisions. Here, it is suggested that political ideology is predictive of product attribute preferences with these preferences mediated by regulatory focus. This effect is explained by political ideology's effect on motivation, attribute evaluation, and, ultimately, choice.

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18. *The Postexperience Advertising Effect on Consumer Memory: The Contrast Effect*

Qiuping Li, University of Nebraska, USA*

Braun (1999) is the first study demonstrating the impact of postexperience advertising on consumer memory in marketing area. Specifically, it shows that subjects who watch an advertisement after the consumption experience recall the experience more positively, compared with those who are not exposed to advertising. This project takes one step forward and aims to define the boundary conditions under which advertising has a negative impact on memory. That is, when do consumers who watch an advertisement recall the initial experience more negatively? It is important for marketing practitioners to understand this question because it affects consumer memory and consequently future consumer behavior.

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19. *Seeing Things from a Different Perspective: Influences On Perspective-Taking*

Karolien Driesmans, K.U. Leuven, Belgium*

Luk Warlop, K.U. Leuven, Belgium

Mario Pandelaere, Ghent University, Belgium

To date, research on perspective-taking mainly dealt with its influence in different domains. Given the general importance of perspective-taking and its potential consequences, it is worthwhile to identify factors affecting this ability and tendency to spontaneously adopt the viewpoint of others. By means of a dictator game variant, we show that dispositional as well as situational factors can influence perspective-taking attempts. In particular, we find that gender, level of materialism and Christmas cues affect the amount of perspective-taking.

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20. *The Effects of Carrying Weight on Priming Effects at Different Stages of Information Processing*

Xuefeng Liu, University of Illinois, USA*

Robert S. Wyer, Jr., University of Illinois, USA

Bodily reactions can activate concepts in memory that are associated with these reactions. These concepts, in turn, affect product evaluations through their impact at several different stages of information processing (attention, comprehension, inference, etc.). We find that wearing a heavy or light backpack affects the importance that people attach to weight-related attributes when they make a product evaluation, the favorableness of heaviness when they make a comparative judgment, and their interpretation of statements about the importance of life events. A second study is currently being conducted to confirm the interpretation of these effects.

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21. *Effects of Construal Level on the Composition of Consideration Set*

Fang-Chi Lu, University of Iowa, USA*

Dhananjay Nayakankuppam, University of Iowa, USA

This research investigates the effects of construal level on the construction of consideration sets. Building on the basis of construal level theory, we propose that when a decision is represented at high level construals, individuals tend to search for alternatives at a global level, and thus are more likely to have across-category consideration; whereas when the decision is represented at low level construals, individuals tend to adopt a local search strategy, having more within-category consideration. Results from an automobile purchase scenario showed that participants had higher across-category (within-category) consideration when the purchase was to be made in the distant (near) future.

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22. *Identifying The Factors that Influence Disposition Practice of Consumers*

Srividya Raghavan, IBS, Hyderabad, India

Rajdeep Chakraborti, IBS, Hyderabad, India*

While disposition decision taxonomy and process have been conceptualized by several researchers, very little empirical work has been done to identify factors that influence consumer disposition decision. This study uses the basic taxonomy and framework proposed by earlier researchers to build a background for empirical study that establishes some of the factors elucidated conceptually in earlier studies. Using technological obsolescence and product dysfunction as contexts in which disposition decisions are taken, this study examines three main disposition decisions: keeping the product, getting rid of it permanently and getting rid of it temporarily, for three different product categories. These decisions are purported to be influenced by disposition personality of the decision maker, gender and age. This study showed significant impact of several of these variables for each disposition decision. The impact of factors like context, object and the personality traits on disposition behavior of consumers have been mentioned in the literatures, no empirical study has taken place to find the impact of the three factors together. This study tried to fill that gap.

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23. *Mood Matching: The Importance of Fit between Moods Elicited by TV Programs and Commercials*

Joseph Lajos, HEC Paris, France*

Nailya Ordabayeva, Erasmus University Rotterdam, The Netherlands

Amitava Chattopadhyay, INSEAD

We examine the effects of program-induced moods on liking for commercials that elicit positive or negative moods. Drawing on role fulfillment evaluation theory, we hypothesize that TV viewers have more favorable attitudes toward commercials that support moods established by programs than toward those that break established moods. We find support for this hypothesis in two experiments, and show that whereas role fulfillment evaluation theory makes accurate predictions when people have mood expectations, mood as information theory makes accurate predictions when they do not.

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24. *Does the Distribution-Sales Relationship Differ Between Channels and Countries? An Empirical Analysis*

Hubert Gatignon, INSEAD

Erin Anderson, INSEAD

Joseph Lajos, HEC Paris, France*

Although it is intuitive that retailers should increase coverage of products that are selling well, it is somewhat less intuitive that retailers should take the risk of increasing coverage before sales increases have materialized in an effort to push these products on consumers. We use a simultaneous equation model to analyze sales and distribution coverage of two brands of an innovative new consumer durable in competing types of distribution channels in four European countries in order to examine whether retailers in different countries make their coverage decisions for a new durable product in the same ways.

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25. *Unhealthy Food Is Not Tastier for Everybody: The Healthy=Tasty French Intuition*

Carolina Werle, Grenoble Ecole de Management & CERAG, France*

Gauthier Ardito, Grenoble Ecole de Management & UPMF, France

Trendel Olivier, Grenoble Ecole de Management

Previous research demonstrated that “unhealthy” and “tasty” foods are implicitly associated for American subjects (Ragunathan, Naylor and Hoyer, 2006). There are significant differences in terms of food perceptions between French and Americans (Rozin and al., 1999; Fischler, 2008). One study demonstrates that the opposite intuition exists implicitly in France: “healthy” is implicitly associated with “tasty”. Results indicate that level of dietary restraint and BMI can potentially explain these differences. The strength of the association between “healthy” and “tasty” foods is weaker for highly restrained eaters than for unrestrained eaters. Furthermore, there is a negative correlation between BMI and response time in the IAT: the higher the BMI the weaker the association between “healthy” and “tasty”.

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26. *Does It Really Pay-Off to be a Global Brand?: Shifting Standards in the Evaluations of Global and Local Product Failures*

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Aysegul Ozsomer, Koc University, Turkey

Zeynep Gürhan-Canli, Koc University, Turkey

Product-harm crisis is defined as a well-publicized event where a product is defective or dangerous, and may be detrimental to a brand's equity. Building on shifting standards theory from social psychology and recent research on consumer perceptions of global and local brands, this research systematically investigates how consumers' evaluations of global and local product failures or larger scale product-harm crises differ. Two laboratory experiments demonstrate that consumers have different expectations and use shifting standards when evaluating global versus local brands, and that their evaluations are affected differently following the specific responses of the firms to a product failure or crisis. Our results have important implications for managers.

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27. *Is It Worth the Money? The Effects of Regulatory Focus on Consumers' Sensitivity to Price and Quality*

Woo Jin Choi, Texas A&M University*

Allan (Haipeng) Chen, Texas A&M University

This research investigates the effects of consumers' motivation on their sensitivity to product price and quality information. Drawing upon research on regulatory focus and pricing, we predict that consumers with a promotion (prevention) focus are more sensitive to differences in product quality (price). Across four studies, we find that quality (price) is more likely to be grouped with promotion (prevention) words, that a chronic promotion (prevention) focus is correlated with preferences for high-quality (low-priced) products, that manipulating regulatory focus increases such preferences, and that these preferences are moderated by reference points and mediated by relative attention to quality (vs. price).

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28. *The Role of Organizational Citizenship Behavior in Elderly Customer Evaluations of Service Quality: Satisfaction, Behavioral Intention, and Word-Of-Mouth*

Wooyang Kim, Temple University, USA*

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James Hunt, Temple University, USA

Richard Lancioni, Temple University, USA

Traditional investigations of consumer evaluations of service quality have examined such evaluations in the context of provider characteristics. Such research typically reports lower evaluations of providers who violate expectations. We argue that this perspective ignores the process-related component of the relationship between provider and customer. In a large scale study of elderly Korean hospital patients, we show that the organizational citizenship behavior (OCB) has a significant effect on perceptions of service quality and ultimate satisfaction. Our findings also demonstrate a robust effect of such perceptions on subsequent behavior. Strong OCB seems to carry over to intention and the likelihood of favorable word-of-mouth communication.

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29. *What Price Peace of Mind: Regulatory Focus and Willingness to Pay for Extended Warranties*

James Loveland, Arizona State University, USA*

Katherine Loveland, Arizona State University, USA

Extended service contract warranties are extremely profitable for firms, but little is known about why consumers buy them. In this vein, this paper examines some of the individual differences variables that might predict willingness to pay for warranties, such as psychological reactance, persuasion knowledge, regulatory focus, risk perceptions, and the source of the warranty offer. Based on results from two experimental studies (N=931), results showed that regulatory focus, psychological reactance, and the warranty source increased willingness to pay. Additionally, we found support for the idea that there might be propitious selection for laptops, but not TV's.

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30. *A Conceptualization and Measurement of Product Cuteness*

Katarina Hellen, Swedish School of Economics*

Maria Sääksjärvi, Delft University of Technology*

We set out to investigate a special type of anthropomorphized products, i.e. cute products that are conceptualized as products sharing features with human infants. In this paper, we conceptualize product cuteness, develop a measure to capture the concept and demonstrate its potential to foster product-customer relationships. In four studies we show that product cuteness comprises four dimensions: sweetness, size, unsophistication and sympathy that can be measured in detail on a 21-item scale. Validity of the four dimensions was provided in a series of studies. Product cuteness was shown to impact product delight, product attachment and satisfaction.

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31. *The Influence of Gender-role Expectations on the Consumption of Women's Sports Media*

Stephen R. McDaniel, University of Maryland, USA

Larry Degaris, University of Indianapolis, USA

Jonathan Horowitz, University of Maryland, USA*

Given the pervasiveness of sports media in the multi-billion dollar entertainment industry, this study examines a paradox that exists between a growing female sports market and moribund U.S. women's sports leagues and media. This study finds that more egalitarian gender-role attitudes (measured by the Attitudes Towards Women Scale) correspond to greater interest in reading about women's sports. However the relationship is curvilinear, and for extreme egalitarian views there exists a vertex after which interest wanes. Having daughters who play sports also represents a significant explanatory variable. However, gender is not shown to significantly influence interest in women's sports coverage.

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32. *Website Atmospherics for Online Shopping: The Effect of Font Styles on Brand Personality*

Xiaoyu Yu, Franklin & Marshall College, USA

Carolyn Wittenbraker, Franklin & Marshall College, USA*

Susan Andrzejewski, Franklin & Marshall College, USA*

This study investigates the influence of hedonic versus utilitarian font style on brand personality perception for both hedonic (chocolate) and utilitarian (printer ink) products in an online shopping environment. As predicted, font style had a significant impact on the brand personality ratings of a utilitarian product, but not a hedonic product. These personality ratings do not seem to affect overall product evaluations or decision to purchase the product. Implications for marketers and suggestions for future research are discussed.

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33. *Preliminary Results from a Study on Catalog Shopping and Perceived Risk*

Joseph Jones, North Dakota State University, USA*

Previous research on consumer catalog shopping for non-digital products has overlooked mode of catalog and perceived risk. The current study examines effects of different catalog modes on a large number of types of specific product choice risk and shopping medium choice risk. Preliminary results suggest that online catalog shoppers face new and different types of risk as compared to print catalog shoppers. Overall, the current study contributes to research by identifying risk associated with catalog shopping, as a result creating a starting point for future work.

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34. *Mobile Retail Advertisement: The Attenuating Role of Service Contracts in Reducing Regret and Risk*

Myla Bui, Loyola Marymount University*

Anjala Krishen, University of Nevada, Las Vegas*

Advertising and retailing research efforts have focused primarily on traditional retailing outlets such as department stores and e-commerce. The recent growth of kiosks is an expected evolution within retailing; however sparse research has investigated consumption behaviors within the mobile shopping environment, mainly due to its novelty. We focus on the effects of gender and anticipated regret on consumers' risk perceptions, satisfaction levels, and purchase intentions for service contracts. The results of two experimental studies show that gender plays a significant role in risk perceptions of advertised retailers. Further, promotional efforts can be made to reduce anticipated regret through the offering of service contracts.

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35. *The Effect of Individual Differences in Working Memory Capacity on Susceptibility to the Omission Neglect Bias*

R. Justin Goss, University of Texas at San Antonio, USA*

David H. Silvera, University of Texas at San Antonio, USA

The current experiment aims to investigate whether Working Memory Capacity (WMC) and motivation for accuracy play a role in insensitivity to omitted information; which, in turn, would lead to forming a more positive attitude about a product than was elicited. A significant interaction in a 2 (Operation Span: High/Low) X 2 (Motivation for accuracy: High/Low) between subjects design indicated that participants with high working memory capacity (WMC) and high motivation for accuracy formed less favorable attitudes about a mediocre product than those with high WMC and low motivation for accuracy. Further results, implications, and future directions are discussed.

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36. *Homophily and Identity Richness in the Online Environment*

Sean Coary, University of Southern California, USA*

User reviews are a common tool used by many online retailers. The amount of personal information revealed by the reviewer varies between users and websites. Some websites allow users to provide rich information to other users such as pictures and avatars. This paper investigates the effects of reviewer information, similarity of the users, richness of the website and valence of the posts on the consumers' product attitudes and purchase intentions. The underlying process driving these effects are identified and investigated.

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37. *The Restorative Effects of Mindful Awareness: Ego-Depletion Effects are Attenuated by Mere Awareness*

Xieheng Maxine Zhang, University of Southern California*

Allen Weiss, University of Southern California

Leigh Anne Novak Donovan, University of Southern California

Wendy Wood, University of Southern California

Joseph Priester, University of Southern California

Recent research has revealed that awareness of action can influence experiential satisfaction. When individuals are instructed to attend to a task, becoming aware of the sensations associated with the task, they find such tasks more enjoyable, even when those tasks are relatively unpleasant. The present research examined whether such mere awareness can serve as a restoration to ego-depleting tasks. Results demonstrated that ego-depleted participants who engaged in a second task with mere awareness performed as well as participants who were not ego-depleted.

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38. *Survival and Food Choices*

Juliano Laran, University of Miami, USA

Anthony Salerno, University of Miami, USA*

Shweta Oza, University of Miami, USA

Our paper explores how priming the concept of survival unconsciously influences people's food choices. We argue that the restricted-resources and overall adversity associated with survival drives people to want filling and higher-calorie foods as a means of facilitating survival. Results indicate that the effect of survival prime on food choice is moderated by people's perceived duration of survival. In addition, preliminary results suggest that our survival prime is distinguishable from pleasure seeking primes and that the effect of our survival prime shifts food choice from filling and high-calorie to healthy when people are given money to address the restricted-resource association.

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39. *Effects of Perceived Proximity and Climate Change and Timing of Behavioral Engagement on Intentions and Attitudes toward Green Product Buying*

Kiju Jung, University of Illinois, at Urbana-Champaign, USA*

Madhu Viswanathan, University of Illinois, at Urbana-Champaign, USA

This paper investigates how two temporal distances, proximity of climate change and timing of behavior engagement, jointly affect intentions and attitudes toward engaging in green product buying. We found that people had greater intentions when climate change is imminent and when they were asked to buy green products in the distant future. More important, attitudes were not affected by either proximity of climate change or timing of behavioral engagement. Finally, reported intentions to buy in the first task generalized to the second task regardless of the point in time at which the purchasing decision of green product was made.

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40. *Can I Pay More? The Moderating Effect of Gender and Self-Esteem Following Consumer Rejection*

Hamed Aghakhani, University of Manitoba*

Kelley Main, University of Manitoba

Fang Wan, University of Manitoba

Self-esteem and gender are two factors that have not been thoroughly investigated in the literature of rejection. In this research, the results show that consumers' self-esteem and gender moderate the spending behavior of those who are rejected. In particular, rejected women with high self-esteem are willing to pay more for products, whereas rejected women with low self-esteem show no significant differences in the amount of money they are willing to pay for a product. The results show no significant difference for rejected men.

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41. *When Trivial Attributes Are No Longer Trivial: The Role of Extra-Consumption Goals in Product Evaluation*

Na Xiao, Queens University*

Laurence Ashworth, Queens University

Existing research shows that trivial attributes – those unrelated to the core function of the product – can nevertheless sometimes influence consumers' product evaluations. This appears to occur because consumers draw inferences that go beyond the information provided. We provide a broader framework for examining the effects of trivial attributes. Specifically, we suggest that trivial attributes will influence product evaluation when they are relevant to consumers' broader set of extra-consumption goals – goals they might possess that are not directly related to the function of the product. We test this basic proposition as well as features of the consumption environment that can cause such goals to be activated at the time of product evaluation.

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42. *How Goals Influence the Impact of Attributes in Product Evaluation: The Role of Goal Importance and Goal-product Fit*

Na Xiao, Queens University*

Laurence Ashworth, Queens University

Much research examines the way in which consumers combine or compare product attribute information when evaluating products. It is not clear, however, what causes certain attributes to be important in the first place. The current work starts with the broad notion that attributes that are related to activated goals should exert a greater impact on overall product evaluation. That is, the ability of a particular attribute to fulfill a goal should have a greater impact on overall product evaluation when the goal is activated. This effect should be moderated by goal importance. We further suggest that the effect of attribute ability on product evaluation is moderated by the extent to which the activated goal “fits” with the particular product. The results of two experiments provided support for our hypotheses.

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43. *Counter-Intuitive Effects of Guilt on Luxury Purchases*

Margarita Gorlin, Yale University, USA*

Kelly Goldsmith, Northwestern University

Ravi Dhar, Yale University

While it is now well established that guilt can trigger the need to justify one’s choices or actions, relatively little is known about the effect of guilt on choices among luxury goods. We predict that, counter-intuitively, activating guilt increases the choice of more expensive, luxury options. We draw on the finding that options providing maximum luxury may be easier to justify, particularly when they offer the consumer a special or unique peak experience, to propose the following mechanism: when guilt is activated prior to the choice, consumers experience an increased need to justify their decision and as a result are more likely to choose the option in the set that offers maximum luxury.

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44. *Does it Sound Familiar? The Effects of Thinking Style on Judgment of New Products*

Sydney Chinchachokchai, University of Illinois, USA*

Hayden Noel, University of Illinois, USA

When features of new products match with existing knowledge about the products, consumers use a category-based process as a basis for judgment. However, when the information is incongruent with prior knowledge, they switch to a more analytic mode (piecemeal process). This study examines the effects of thinking styles (holistic vs analytic) and different levels of information congruity to prior knowledge on product judgments and evaluations. We found that holistic thinkers like the new product more than analytic thinkers when the features of the product do not sufficiently deviate from the existing product features but like it less when the new features are very different from the existing features.

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45. *When Product Assembly Matters: Understanding the Effects of Self-Construal and Task Difficulty on Consumer Attributions in Actual Product Assembly Situations*

Prakash Das, University of Calgary, Canada*

Katherine White, University of Calgary, Canada

James Agarwal, University of Calgary, Canada

Product assembly prior to product use is a common experience and is a form of customer cocreation. How do assembly experiences influence customer attributions of the firm's efforts? This research examined whether priming self-construals influenced attributions. Utilizing product assemblies involving a real (store-bought) product, we show that, in comparison to priming the interdependent self-construal, priming the independent self-construal leads to both more negative attributions and negative product attitudes when product assembly is difficult (versus easy). Consumers appear to show a self-serving bias that arises from differences in experienced self-threat. We contribute to the literature on the psychological effects of cocreation.

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46. *Through the Motivation Lens: Ought and Want in Prosocial Behavior*

Elizabeth Keenan, UC San Diego, USA*

Ayelet Gneezy, UC San Diego, USA

In this research we propose and investigate one fundamental difference between prosocial behaviors pertaining to the environment and those pertaining to “mainstream” causes. Specifically, we propose that feelings of ‘ought’ play a larger role in individuals’ decisions to engage in environmental prosocial behavior. This is in contrast to prosocial behaviors that benefit other types of causes (e.g., Make-A-Wish-Foundation), which are driven by feelings of ‘want’. We further propose that engaging in prosocial behaviors driven by ought motivation have significantly different effects on individuals’ subsequent behaviors, mood and attitude compared with equal behaviors that are driven by feelings of want.

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1.1 Individual Papers: Money and Risk-Taking

Room: Grand Ballroom A

Chair: Demetra Andrews, Florida State University

The Effect of Risky, Uncertain, and Missing Information on Choice

Mihai Niculescu, New Mexico State University, USA*

David Curry, University of Cincinnati, USA

Frank Kardes, University of Cincinnati, USA

Prospect theory (Kahneman and Tversky 1979) describes human choice between sure thing options and gambles; e.g. (\$10 for sure) vs. (a 50-50 chance of winning either \$0 or \$20). One fundamental property of prospect theory is its reference dependence; it suggests that consumers judge alternatives relative to a specific reference point. Deviations from the reference point are labeled as ‘gains’ or ‘losses’. Gradual improvements to the theory led Tversky and Kahneman (1992) to incorporate information that may be risky (i.e., information available with known probabilities), and uncertain (i.e., information available with unknown probabilities) under the umbrella of a revised version of prospect theory. While no clear choice prediction is suggested, cumulative prospect theory acknowledges qualitative similarities and differences between risky and uncertain information. Hence, the theory may be closer than its predecessors to explaining anomalies, such as the Ellsberg (1961) paradox. Ellsberg demonstrates in one experiment that objective probabilities and unknown probabilities are mapped into different subjective probabilities. In his experiment, respondents consistently chose the option described by a known probability instead of the option described by unknown probabilities (i.e., *ambiguity aversion*). In a similar vein, Ghosh and Crain (1993) studied the structure of uncertainty in laboratory settings and suggested that “the strength of the information describing an uncertain event is captured better by both the mean and the range of the uncertainty than by either of those components singly.”

These results suggest that risky attribute levels – described by known outcomes and known probabilities – may be different from and more informative than uncertain attribute levels – characterized by known outcomes but unknown probabilities.

Another line of research has focused on the frequent inability of humans to recognize that the information they may use for a decision is notably incomplete. Missing information is characterized by unknown outcome values and unknown probabilities. Studies have shown that learning based on the absence of a signal is problematic (Fazio et al. 1982) and failure to detect missing information is a spontaneous and routine process (Houghton et al. 1998). Omission neglect, or *insensitivity to missing information*, predicts that humans overweight present information in the detriment of non-present information; this leads individuals to judgments biased by their dependence on available data (Sanbonmatsu et al. 2003, Kardes et al. 2006).

However, research on the boundary conditions of omission neglect suggests that increased awareness that “something is missing” is sufficient to decrease this bias (Houghton et al. 1998). In other words, missing information is informative in its own way when individuals are even generally aware of a gap in their knowledge.

Overall, these results suggest that information conveyed by unknown outcomes and unknown probabilities may be less useful than information conveyed by risky or uncertain options. Hence, we expect a higher preference for more complete information; i.e., risky information \succ uncertain information \succ absent/missing information.

Such preference should lead to lower partworth utility for attribute levels with missing information irrespective of the framing of a situation as a gain or loss. It should also impact levels of loss aversion for different attribute levels.

One hundred and forty nine undergraduate college students participated in a discrete-choice experiment in exchange for extra credit in a marketing course. Participants were randomly assigned to one of two conditions (Framing: Gains vs. Losses) in a between subjects experimental design.

Framing. Attribute levels were defined as positive or negative deviations from a set of reference points provided in the scenario. In the gain condition, attributes were described by levels superior to the reference level. In the loss condition, the attribute levels were inferior to the reference point.

Procedure and measures. Participants received a link to the online survey via email invitation. Respondents read a brief scenario and sequentially evaluated 25 choice sets in a forced choice task (i.e., the ‘no-choice’ option was not available). Each choice set described three products (vacation packages). Respondents chose the one offering the most value to them. Each vacation package was described by the price of the trip and by the weather conditions forecast during the time of the trip (i.e., the number of additional sunny or rainy days relative to the reference point and the corresponding probabilities of occurrence).

We used a discrete choice experiment (DCE) to combine the advantages of statistical parameter estimation in random utility theory with those of a controlled environment in experimental design (Louviere and Woodworth 1983). DCEs – estimated using either maximum likelihood or simulated maximum likelihood procedures – isolate the direction and magnitude of value for each attribute (level) of a set of multi-attribute choice alternatives. They are less respondent demanding than experiments using traditional analysis of variance and circumvent the need to rely on monetary gambles.

We compared results from an unrestricted model (u) with those from several nested models (r). The values for $[-2 * (\log L_U - \log L_R)]$ are distributed χ^2 with degrees of freedom equal to the number of fixed parameters (i.e., $df=1$ in this case). Statistically significant differences between competing models confirm our hypotheses. Results suggest that the information context induces a meta-order on preference judgments, as follows: risk \succ uncertain \succ absent. This order correlated with higher loss aversion and did so in a more pronounced fashion for attribute levels described by missing information than for attribute levels described by risky information.

Often, marketing studies treat incomplete information as missing information. This paper combines two research streams to broaden the concept of “incomplete” to include information that may be *risky*; i.e., available with known probabilities, *uncertain*; i.e., available with unknown probabilities, or *missing*; i.e., unavailable. Including a more nuanced array of information types offers a more comprehensive treatment of the impact of information type on choice.

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Money Armor

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Larry McCurtry was once quoted as saying that “no illusion is more crucial than the illusion that great success and huge money buy you immunity from the common ills of mankind...” This quote presents two inherent aspects of wealth, that money is instrumental in separating people and in social protection (Lea & Webley, 2006). Tour through any major city in the world and one quickly sees the role money plays in segregation – the rich and poor - and in protecting the rich from the same ailments that inflict the poor. Moreover, this quote presents an interesting question: does money lead to illusions of immunity?

There is little doubt that the concept of money provides incentive motivation (Pessiglione et al., 2007; Schmidt et al., 2010). Money, however affects more than the degree of effort one exerts to obtain it. Work by Vohs, Mead, and Goode (2006) suggests that activating the concept of money can lead to feelings of self-sufficiency. Consistent with the self-sufficiency hypothesis, recent research has suggested that money provides additional feelings of confidence that problems can be solved and improves one’s ability to withstand physical pain (Zhou et al., 2009). Contributing to this work, we suggest that the concept of money does more than lead to feelings of confidence and self-sufficiency. We contend that the concept of money may increase one’s perceived immunity from negative events by triggering social comparisons and certain stereotypes - the fortunate rich and the not so fortunate poor. We term this increase in one’s perceived immunity as the *money armor* effect.

Whether people see themselves as less likely to be victimized by negative events than others depends on who those others are. The extent that we make “downward comparisons” and compare ourselves with those who are less fortunate or more susceptible speaks to the underlying processes of the money armor effect. For many events – being acquitted of a crime, for example – people may have a stereotyped perception of differences in immunity between those with money (the rich) and those without (the poor). People may have a stereotyped perception that those with money enjoy a better life in general. These stereotypes, as appropriate or inappropriate as they be, stem from people’s reliance on a “representativeness” heuristic (Kahneman & Tversky, 1973). Similar to downward comparisons, the activation of a money concept may have the psychological advantage of making one feel good about one’s situation relative to others. Thus, just as people stereotypically believe that those with money have greater immunity to negative events than those without, we believe that the activation of the concept of money in people will lead to illusions of immunity and lead to the money armor effect. Three experiments test this.

In experiment 1, we activated a concept of money and examined participants’ willingness to engage in risky behaviors. Thirty-eight undergraduate students were randomly assigned to one of two conditions (money vs. control) adopted from Zhou et al. (2009). In the money condition participants were given 80 hundred dollar bills of play money to count. In the control condition, participants counted 80 pieces of paper. Participants then read three scenarios: scenario 1 was a drinking and driving scenario, scenario 2 was a risky driving scenario, and study 3 was a risky sex scenario. Following each scenario, participants responded to scale items capturing their likelihood to participate in a risky behavior consistent with the scenario. The results showed that participants in the money condition were more willing to drive under the influence of alcohol, more willing to speed, willing to drive much faster over the speed limit, and more willing to have sex without a condom.

Experiment 2 examines whether the activation of a money concept increases perceived immunity by comparing smokers own assessments of developing cancer versus other smokers. Eighty-nine smokers were randomly assigned to a 2(money: wealthy vs.

poor) x (perspective: self vs. other) between subjects design. A similar money prime was used to activate the concept of money in participants. Participants were then given a scenario about smoking 10-20 cigarettes a day. After reading the scenario, participants were asked “how likely are you (is the person) to get lung cancer. The results revealed main effects of perspective (participants rated others as more likely to get lung cancer) and money (poor condition reporting a higher likelihood of getting cancer). The money x perspective interaction was also significant. Follow-up tests revealed that smokers’ ratings of their own risk of getting lung cancer were lower in the wealthy condition than in the poor condition. Smokers in the wealthy condition also rated their own risk of getting lung cancer as lower than the risk of others getting lung cancer. There were no differences across participants in the poor condition. Experiment 3 activated a concept of money and examined perceived personal immunity from illness using behavioral measures. Participants were thirty-eight undergraduates. A research assistant introduced himself and instructed participants that they would be matched up with another participant to play a money game similar to Monopoly at the end of the session. The research assistant coughed and sniffled constantly while providing these instructions. He then asked the participants to excuse his coughing and mentioned that he felt terrible and that he hoped he wasn’t coming down with the flu. He then passed out the money (high = \$15,658; low = \$892). The research assistant then excused himself. A second research assistant took over. The participants then completed a survey and were then offered a free gift and given a choice between a hand sanitizer worth \$1 and a pen worth \$1. Our hypothesis was that those in the high money condition would feel more immune to the research assistant’s illness and be less likely to choose the hand sanitizer. A logistic regression proved this to be true, participants in the wealthy condition were significantly less likely to select the hand sanitizer than participants in the poor condition (20% vs. 50%).

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Reversals in Risk Preferences for Experiences and Money

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This research seeks to address a fundamental question: How can we predict, when consumers make choices in the real world, whether they will be risk-seeking or risk-averse? While numerous studies have been devoted to risk preferences for money – typically showing that people are risk-seeking for monetary losses and risk-averse for monetary gains – relatively little attention has been paid to risk preferences for everyday experiences. For instance, facing a choice between a movie that receives many “three-star” ratings and another movie that receives many “five-star” but also many “one-star” ratings, do decision makers play it safe or take a chance on the risky option?

The naïve conflation of experiences and monetary gambles of the same valence offers intuitive appeal: Negative experiences (e.g., dentist visits) might induce risk-seeking as do monetary losses, while positive experiences (e.g., desserts) might induce risk-aversion as do monetary gains. However, we propose the opposite, that people are risk-seeking for positive experiences and risk-averse for negative experiences: People will gamble on desserts, but not on dentists. We argue that this reversal follows from the different way in which reference points are set for experiences and money. For monetary prospects, one’s current wealth level – or zero change – serves as a salient reference point, such that gambles with positive values are interpreted as gains, and negative values as losses. As established by Prospect Theory (Kahneman and Tversky, 1979), decision makers exhibit decreasing marginal utility with incremental

changes in wealth further from zero. As a result, they strive to avoid this \$0 change for monetary gains (risk-aversion), while seeking to attain it for monetary losses (risk-seeking).

For experiences, however, empirical evidence suggests that reference points are determined not by such neutral values but rather by extremes (e.g., the best dessert and the worst dentist's visit in memory). For instance, Morewedge, Gilbert, and Wilson (2005) show that people most readily recall the most highly positive instances in generally positive domains of experience, and the most highly negative instances in generally negative domains of experience. Further, Koszegi and Rabin (2006) develop a model in which preferences are generated from reference points that shift according to prior experiences. Thus, we predict that many desserts – despite being positive experiences – will be treated as losses relative to a very high reference point (leading to risk-seeking choices), and many dentist's visits – despite being negative experiences – will be treated as gains relative to a very low reference point (leading to risk-averse choices).

The first study demonstrates our main effect that choice of risky options generally increases across 18 choice domains as experiences become more positive, and decreases as experiences become more negative. We also replicate the standard pattern of risk-seeking for losing gambles and risk-aversion for winning gambles, such that gambles are exceptions to this correlation between valence and risk preference for experiences. In the second study, we investigate whether risky choices for experiences reflect underlying utility curves as they do for money. Our results indicate that, indeed, utility is convex for both positive experiences and monetary losses, but concave for both negative experiences and monetary gains, consistent with reference points at zero for money but at extremes for experiences. Furthermore, the curvature of an individual's own utility curve predicts risk-seeking across each of these domains. Finally, our third study uses functional magnetic resonance imaging (fMRI) to assess the psychophysical processes driving risk preferences for experiences and money, focusing specifically on the ventromedial prefrontal cortex (vmPFC) which has been associated with risk-aversion (e.g., Bechara et al., 1997). We observe greater brain activation in this region during anticipation of monetary gains and negative experiences, in comparison to positive experiences and losing gambles, indicating that similar neural mechanisms underpin the mirror image risk preferences for experiences and gambles.

We discuss the importance of these findings for understanding and predicting consumer preferences in various domains. One implication is that consumers may become less price-sensitive (and potentially more profitable) with shifts in quality at the upper range of the spectrum for hedonic goods. Another implication is that consumers may be more amenable to novel or risky product recommendations (that have received few ratings or high variance ratings from others) in generally more positive domains. We conclude by describing future studies that will test these effects more directly in the lab and in the field.

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The Effects of Circular and Linear Time Orientations on Personal Savings Estimates and Savings Behavior

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A low personal savings rate has been an important concern from economic, social and policy standpoints, especially as the U.S. savings rate dipped into negative territory in 2005 (Guidolin and Jeunesse 2007) and remained there until unease from the recent

economic down turn brought it back up to positive levels in the fourth quarter of 2009 (BEA 2010). Nevertheless, there is still a wide range in personal savings rates across consumers. Some consumers are able to save a significant amount of their incomes, whereas others can barely make it from paycheck to paycheck. Moreover, such differences cannot be explained solely by differences in income (e.g., Masson, Bayoumi and Samiei 1998). It is therefore important to examine factors affecting personal savings of consumers. Prior research has shown that the temporal frame such as length of duration and delay used in decision making is crucial to personal finance tasks (e.g., Ulkumen, Thomas, and Morwitz 2008; Tam and Dholakia 2010).

We examined effects of circular and linear time orientation on personal savings estimates and savings behavior. The distinction between circular and linear time orientation originates from people's view of life. Under a linear time orientation, there is a past, present, and future, and time is separable into discrete compartments and moves toward the future in a linear fashion. Under the circular time orientation, in contrast, time is not perceived as a straight line stretching from the distant past to the far future, but rather, it is seen as a circular system in which the same events are repeated according to some cyclical pattern (Graham 1981). The "discrete compartment of time" view in the linear time orientation results in a difference in how much people focus on the future versus the present. Individuals under a linear time orientation are more future oriented and less present oriented than those under circular time orientation (Bergadaa 1990). Linear and circular time orientations also differ in how goals are approached.

Based on the three different characteristics between linear and circular time orientation, (1) the overall progression in life, (2) a future versus present orientation, and (3) a planning mind set, one would expect to see higher savings rate from people with a linear time orientation than a circular time orientation because linear time orientation is expected to put a stronger emphasis on future retirement needs and enable formulation of more concrete plans to accumulate personal savings. Future goals should determine present actions and people with linear time orientation should plan for the future and thus behavior in the present should be based on making forward progress towards achieving long-term goals. Yet, in reality, many empirical surveys show that people that tend to adopt a linear time orientation save much less than those who tend to adopt a circular time orientation (Horioka and Wan 2008; Caillois and McKeon, 1963).

We draw on Resource Slack Theory (Zauberman and Lynch 2005) and Construal Level Theory (Lieberman and Trope 1998) to explain this anomaly and to better understand the effects of circular and linear time orientations on savings estimates and personal savings. Theoretically, resource slack as operationalized by future optimism and level of construal of the savings task are likely to be affected by time frames for which savings estimates are given. In the context of saving behavior, Resource Slack Theory suggests that people think they will be able to save more in the distant future than the near future because of the notion of future optimism. Future optimism is expected to result in a higher estimate of saving for distant future time periods than near future time periods. Linear time orientation is more future oriented and circular time orientation is more present oriented. When future optimism affects personal savings estimates, we expect higher savings estimates to result from linear time orientation than circular time orientation. However, once specific savings plan (e.g., saving 10% of paycheck) is set, a circular time orientation that has lower level of future optimism and focuses on tasks on hand could save actually more than linear time orientation.

Construal Level Theory posits that temporal distance changes decision makers' responses to future events by changing the way they mentally represent those events (Trope and Liberman 2003) and provides useful insights into the role of savings task construal under linear and circular time orientation. This theory suggests that in the case of circular time orientation, decision makers think of saving activities and estimation tasks more concretely using lower level construal, in comparison to linear time orientation where personal savings is considered in more long term progress with higher level construal. Consequently, under circular time orientation, people would be thinking of more specific ways in which they will be able to save money and sticking to the more mundane savings activities

set for each paycheck. Construal of the savings task in detailed, concrete (vs. abstract) terms for circular time orientation is expected to lead to a greater personal savings when compared to linear time orientation.

For these reasons, we expected circular time orientation would result in higher level of savings estimates and actual personal savings. Although personal finance experts tend to think of the linear savings method as more effective and are more likely to recommend it (Study 1), our results reveal that consumers using a circular savings method provide an average of 74% higher savings estimates and save an average of 78% more money (Studies 2 and 3). The greater efficacy of the circular savings method occurs as a result of two processes: a greater degree of *near-term planning* and a lower amount of *future optimism* regarding saving money (Study 3).

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1.2 Individual Papers: Size Matters: Numerosity, Unit, and Size Judgments

Room: Pine Room

Chair: Charles Zhang, University of Michigan

Numerical Judgments with Unfamiliar Units: Reconciling Numerosity and Evaluability

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A broad range of consumer decisions involve judging numerical information in conjunction with a unit of measurement, which may not be familiar to the consumer. Suppose, for example, that you are traveling in a foreign country where people use units of measurement that you are not familiar with. You may need to evaluate a container with volume 128X, a distance of 3,000Y, or a product priced at Z50. How do consumers reason with important numerical information when it is presented in unfamiliar units?

Two main streams of research provide inconsistent predictions. The literature on numerosity and the money illusion (e.g., Shafir, Diamond and Tversky 1997; Wertenbroch, Soman and Chattopadhyay 2007) found that consumers judge unfamiliar information by its face value and therefore over-use numerical information which may not be informative, demonstrating magnitude sensitivity. In contrast, research on evaluability (e.g., Hsee et al. 1999) found that consumers fail to make inferences from numerical information with unfamiliar or hard-to-evaluate units when judging a single stimulus. In these studies, they do not use numeric information even when it may be informative, showing magnitude insensitivity.

In this research, we provide an account of when it is that consumers do and do not utilize absolute magnitude information that is displayed in unfamiliar units, in order to reconcile these inconsistent findings. We propose that whether the numerical information is incorporated into judgments depends on the degree of attention to the specified units. In particular, when the consumer's attention is focused on the unfamiliar unit, she recognizes that the information is useless and disregards the absolute magnitude in her evaluation. However, when the consumer's attention is instead focused on the number, she proceeds as if the number per se is meaningful and tries to make sense of the absolute magnitude and incorporate it into her evaluation. Therefore, whether or not the consumer appears magnitude-sensitive depends on the salience of the units.

We tested our predictions in four studies involving different contexts (judgments of length, price and value), and involving both hypothetical scenarios and real bidding behavior. In three of the studies, we manipulated the relative attention to number versus unit by enlarging the font size of either the number or the unit (between subjects), and we demonstrate that this subtle manipulation can reverse people's magnitude sensitivity.

In the first study, participants evaluated the price of a map book. The book was tagged with a price label containing the numerical component of the price and a currency symbol. We manipulated both the numeric magnitude and the relative font size, in a 2x2 between-subjects design. Half of the participants saw a label with an unfamiliar (fictional) currency symbol in relatively small font and the number in a relatively large font (low unit-salience), while the other participants saw a label with the currency symbol in a relatively large font and the number in a relatively small font (high unit-salience). Likewise, half of the participants saw a large-magnitude price (50.00) and half saw a small magnitude price (5.00). We found that in the low unit-salience condition (enlarged font for the number), evaluations of the price were magnitude-sensitive but participants in the high unit-salience condition (enlarged-font currency symbol) were insensitive to price. This magnitude-sensitivity reversal occurs only for unfamiliar units. In a parallel study with an identical design except that a familiar currency symbol was adopted, the reversal in magnitude sensitivity disappeared and, as expected, participants in both conditions were price sensitive.

In an incentive-compatible replication, participants were told that they would be bidding on an amount of a foreign currency, with the currency symbol denoted by 'X', and that they would find out the country of origin after bidding. In a 2x2 between-subjects factorial design, participants bid on either X6.83 or X0.69 (representing \$1 in either Chinese Yuan or UK pounds, respectively). In the stimuli, either the 'X' was written in a large font (high unit-salience) or the number was written in a large font (low unit-salience); the remaining information was in a small (normal) font. The BDM procedure was used to pay them according to their bids, by comparing the bid with a randomly generated price (see Wertenbroch and Skierra 2002). Participants whose bids were less than the price drawn bought the currency at their stated price.

We found that when the currency font size was large (high unit-salience), there was no significant difference in bids for the two amounts. However, when the numbers were in the large font (low unit-salience), participants were magnitude sensitive and bid nearly \$6 more for the larger-magnitude stimulus (X6.83) than for the small-magnitude stimulus (X0.69).

We replicate these findings in a third study, where participants made estimates based on unfamiliar units of length in which the font size and numeric magnitudes varied. We replicate the reversal of magnitude-sensitivity based on the font size when comparing moderately low and high numbers (3 vs. 12). Magnitude sensitivity for low unit-salience did not extend to a third pair of conditions, however, in which we used dramatically higher numbers in order to prompt an evaluation of the units.

In the last study, we employed an alternative manipulation of unit salience, by varying the order of exposure and intervening elaboration. In the low unit-salience condition, the number and an unfamiliar unit of length were shown jointly. In two high unit-salience conditions, either the number or unit were shown first, participants were asked to type in the information (prompting evaluation) and then were shown the remaining information. We again demonstrated magnitude sensitivity in the low unit-salience conditions, but no significant magnitude sensitivity in the high unit-salience condition.

Across these studies, we ruled out alternative accounts of our findings, including lack of attention, anchoring and adjustment or the application of a "guessed" unit of measure. We discuss the role that response time, accountability and thinking style may play in our

findings, as well as implications for how the display of numerical information may impact purchase and consumption decisions.

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Size Matters! The Category Size Bias in Probability Judgments

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People often base decisions on the perceived probability of future events (Kahneman & Tversky, 1979; Tversky & Kahneman, 1974). For example, suppose that while planning a day at the beach, you attempt to judge the probability that Friday will be the hottest day next week. Would your judgment be influenced by whether you consider Friday a weekday versus part of the weekend? Statistically, the categorization of Friday is irrelevant to this judgment. In the absence of additional information (e.g., weather forecasts), the probability that any given day of the week would be the hottest is $1/7$, or 14%. However, we argue that category size can influence probability judgments, such that people are more likely to predict that Friday will be the hottest day next week when it is considered part of a relatively large category (i.e., weekday) rather than part of a relatively small category (i.e., weekend).

We attribute this category size bias to a stereotyping process (Greenwald & Banaji, 1995; Secord, 1959) in which individuals erroneously apply category-level probabilities to individual-level judgments. Given that more days fall on weekdays than on weekends, there is an objectively higher probability that the hottest day of any given week will occur on a weekday. As a result, people mistakenly believe that any *individual* weekday has a higher probability of being the hottest day of the week. Across three experiments, we document the category size bias and provide evidence consistent with our theoretical account.

The goal of Study 1 was to demonstrate the category size bias, by showing that probability judgments of a particular outcome are overestimated when it is classified into a large category and underestimated when it is classified into a small category. Participants in two conditions learned about a race involving fifteen runners. The fifteen possible outcomes for each runner were classified into three equally-sized categories (i.e., 1-5, 6-10, 11-15) or three unequally-sized categories (i.e., 1-2, 3-13, 14-15). Participants in both conditions were asked to judge the probability that a particular runner placed first, eighth, and fifteenth.

Because there were fifteen possible outcomes, the mathematical probability that any given outcome will occur is $1/15$, or 7%, regardless of how the set is partitioned. However, consistent with our predictions that the magnitude of a probability judgment is influenced by the size of the category into which the target is classified, the results documented a category size bias. Relative to participants in the equal condition, participants in the unequal condition estimated a higher probability that the runner would place eighth and a lower probability that he would place first or fifteenth. We attribute this category size bias to the erroneous application of category traits (i.e., high/low likelihood of being selected) to individual members of the category.

The goal of Study 2 was to show that the category size bias persists even when categories lack evaluative meaning. Participants were presented with information about an urn containing fifteen balls that had been numbered only for purposes of identification. Each participant evaluated two different versions of the set in which there were either five black balls, five gray balls, and five white balls (equal version), or two black balls, eleven gray balls, and two white balls (unequal version). Half of the participants evaluated the

equal version first, and the other half evaluated the unequal version first. For each version, participants were asked to judge the probability that the gray #8 ball would be drawn from the urn.

We predicted that participants would provide a higher probability judgment when evaluating the unequal rather than equal version. Consistent with our prediction, the results documented a category size bias in which the probability that the #8 ball would be selected was higher in the version with a disproportionately high number of gray balls in the set. The bias was strongest among those who evaluated the unequal version first. Notably, however, it persisted even among participants who evaluated the equal version prior to the unequal version. Thus, the category size bias persists in a within-subject design even when categories lack evaluative meaning.

The goal of Study 3 was to test whether a stereotyping process underlies the category size bias. If the bias occurs because people apply category-level probabilities to judgments about individual members of the category, we reasoned that focusing participants on the unique properties of an item in a category would attenuate the category size bias. To test this prediction, we conducted a 2 (identity priming: individual vs. group) x 2 (category size: large vs. small) between-participants experiment.

Participants first listed up to three ways in which financial companies might differ from one another (individual identity priming), or be similar to one another but different from companies in other industries (group identity priming). Subsequently, participants estimated the probability that a particular Japanese bank (i.e., Shizuoka Bank) would outperform the other companies listed on the Japanese stock index (i.e., the Nikkei 225). Before providing their probability estimate, participants were informed that Shizuoka Bank was either one of 98 (large category) or one of 12 (small category) financial companies among the 225 companies comprising the stock index.

Consistent with our theorizing, we found a significant interaction between identity priming and category size. When participants focused on similarities between category members, subsequent probability estimates were greater when Shizuoka Bank was represented as a member of a large versus small category. However, when participants first focused on differences between category members, the category size bias was eliminated.

By documenting a novel bias stemming from category size, this research contributes to a growing body of phenomena showing that irrelevant categorical information can bias judgments (Cheema & Soman, 2006; Cheema & Soman, 2008; Krueger & Clement, 1994; Mishra & Mishra, 2010; Tajfel & Wilkes, 1963). We further show that probability judgments can be influenced not only by the *number* of groups into which possible outcomes are partitioned (Fox & Rottenstreich, 2003; See, Fox, & Rottenstreich, 2006), but also by the relative *sizes* of those groups. In answer to the age-old question, the key take-away from this research is that when it comes to probability judgments, size matters!

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How Do Consumers Estimate Product Downsizing and How Can They Be Helped?

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The supersizing of food portions and packages has been identified as one of the prime drivers of the obesity epidemic (Nielsen and Popkin 2003). Supersizing leads to overeating partly because consumers underestimate just how large supersized portions and packages are (Chandon and Wansink 2007; Krider, Raghubir, and Krishna 2001). Some food companies have started to offer

downsized options on their menus (e.g., Ruby Tuesday, TGI Friday's "Right Portion Right Price" menu) but these initiatives have not been very successful because consumers are averse to portion downsizing. To help consumers better monitor their consumption and to help them choose smaller food portions, it is important to understand how consumers perceive package downsizing and to compare the effectiveness of informational, visual, and haptic de-biasing strategies.

Research in psychophysics has shown that estimations of object size follow an inelastic power function of actual object size (estimated size = $a \times \text{actual size}^b$, where $b < 1$), meaning that people underestimate size increases (Stevens 1986). Research in marketing has found that the underestimation of package size changes is even stronger when an object increases in all three spatial dimensions (height, width, and length) rather than in just one dimension (Chandon and Ordabayeva 2009). However, we don't know why these biases occur, how they can be reduced, and whether these biases, previously reported in the context of size increases, would be similar in the context of size decreases. In this research, we test attentional and computational sources of biased size perceptions, estimate several models of size change, and test informational, visual, and haptic strategies to improve the accuracy of consumers' size estimations in the context of package downsizing.

We hypothesize that people underestimate size decreases not just because they do not pay attention to the fact that the dimensions are changing but because they do not correctly integrate these changes (i.e., there are computational errors not just attentional errors). We further hypothesize that estimations do not follow the normative model of size estimation which assumes that people multiply the changes in all of the three dimensions. Instead, we compare two models: an additive model which assumes that people just add the change in all of the three dimensions and a "surface area" model which assumes that people respond to changes in the surface area of the object instead of its actual volume.

These hypotheses imply that visual and informational strategies, such as drawing attention to individual dimensions and providing information about perceptual biases would not suffice to correct size estimations. They also predict that facilitating the computational problem by reducing the dimensionality of the size decrease (from 3D to 2D to 1D) or by allowing people to hold and weigh the product (and thus rely on haptic instead of just visual information) should improve the accuracy of size estimations. Another prediction of both the additive and surface models is that product downsizing would be more obvious when one dimension is decreased (1D downsizing) than when one dimension is actually increased while the other two are strongly decreased (elongated downsizing). Finally, because of the height/width illusion, we would expect that size estimations are more sensitive when it is the height of the object which is elongated rather than its width.

In study 1, participants saw four sizes (XL, L, M, and S) of rectangular candles and cylindrical candy boxes which decreased either in 1D (height only), 2D (width and length), or 3D. All participants were given the weight and price of the largest option (XL) and were asked to estimate the weight and to provide their willingness to pay for sizes L, M, and S. Participants in the decomposition condition were also given the height, width and length of size XL and had to estimate the height, width, and length of the other sizes. This manipulation ensured that they would pay attention to the fact that more than one dimension may have been reduced. We found a strong underestimation bias on average ($b = .85$). Reducing the dimensionality of size decrease from 3D to 2D to 1D reduced and eliminated the bias ($b = .67$, $b = .89$, and $b = 1.06$), but drawing attention to individual dimensions did not. We also found that the additive model fit the data better than any other models. This shows that the errors are driven by computational errors and not by attention.

In Study 2, we used a similar design as in Study 1 but manipulated whether the product was downsized in 1D or through elongation because it allows us to better compare the predictions of the additive and surface area models. In addition, some of the participants were asked to hold and weigh the products while others were given information about the feedback on their estimation accuracy in a prior similar task. A control group only saw the products visually and was given no feedback (just like in Study 1). Finally, we manipulated the dominant dimension of the package by displaying the two products (soap bars or rectangular candles) either on their base (salient height) or on their side (salient width). As predicted, people noticed the size reduction more when only one dimension was changed than when the product was elongated ($b = .81$ vs. $b = .23$). Allowing people to touch and weigh the packs significantly improved estimation accuracy ($b = .59$ vs. $b = .43$). However, providing information and changing the dominant dimension of a package had no effect. Again, we found that the additive model fit the estimation data better than the alternative models.

In the third study, conducted in collaboration with a major consumer good company, we tested the effectiveness of elongated and 1D downsizing of dog food packages. The participants were all dog owners and were asked to choose between a regular-size pack of a competitor brand and a new downsized version of the company's product which was either downsized in 1D or elongated in height or width. As predicted, the choice share of the downsized pack was larger when the pack was downsized by elongation (57% for the height condition and 46% for the width condition) than when it was downsized in 1D (39%).

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The Unit Effect

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Quantitative statements can always be expressed in different units; for example, 1 year is equivalent to 12 months, 365 days, and so on. Drawing on Grice's (1975) maxims of cooperative conversational conduct, we test what consumers infer from a speaker's choice of unit. In a nutshell, Grice's maxims ask speakers to provide as much information as needed, but not more, and to do so in the most straightforward manner possible. While speakers do not always observe Gricean maxims, listeners interpret their utterances as if they did, unless situational cues suggest that the speaker may not be cooperative (for a review see Schwarz, 1996). We predict, and find, that different time units convey different levels of precision; identical time estimates are perceived as more precise when they are expressed in more fine-grained units than when they are expressed in coarser units, (e.g. minutes vs. hours, days vs. months). This influences receivers' perceptions of the speaker's knowledge and confidence, with downstream consequences for their own inferences, including inferences about the accuracy of the estimate and the quality and performance of a product or service. For example, consumers infer a narrower window of likely delivery times when told that their order will arrive in "30 days" rather than in "one month", and have more confidence that a battery will deliver 90 minutes of reliable service when its expected life is described as "120 minutes" rather than "2 hours". We report several studies that document this *unit effect* and identify some implications and boundary conditions.

Studies 1a-c directly tested the basic hypothesis: a given time estimate is perceived as more precise when reported in a fine rather than coarse unit of time. In each experiment, participants read a scenario that included a temporal estimate, pertaining to, for example, the completion of a project, the release of a new product, or the time needed to repair a car. Depending on conditions, the same time was expressed in relatively fine (e.g., 60 days) or coarse (e.g., 2 months) units. For each scenario, participants reported what they considered the likely temporal window of completion by determining the plausible *earliest* and *latest* time point at which the project

might in fact be completed. The results were consistent across different scenarios and response formats: the more fine grained the unit in which a time estimate is communicated, the narrower the inferred temporal window around the estimate. For example, in one between-subjects experiment ($N = 90$) participants learned that a construction project was estimated to take 1 year vs. 12 months vs. 52 weeks; the corresponding windows for the project's actual completion (marked on a calendar) were 140, 105, and 84 days ($\beta = 27.8$, $t(88) = 3.24$, $p < .005$). In short, the same estimate conveys higher precision when communicated in finer units.

Study 2 tested the impact of this phenomenon on consumer choice. Participants imagined that they are planning a hiking trip and have to decide which of two GPS systems to rent for the tour. The choice presents a tradeoff between battery life and price. The intended trip is slightly shorter the expected battery life of the cheap GPS and much shorter than the expected battery life of the expensive GPS. If coarser units convey a wider window of the batteries' actual life, consumers should infer a higher risk of a "dead" GPS when battery life is described in coarse rather than fine units, thus encouraging choice of the more expensive alternative. Empirically, this was the case; 74% chose expensive GPS when battery life was expressed in coarse units, whereas only 43% did so when it was described in fine units ($p < .01$).

Studies 3a-b further explored how choice of unit influences consumers' confidence in the information conveyed, and identified a boundary condition. Participants read about a cutting edge technology project in the form a news release, in which the speaker communicated completion estimates in fine or coarse units. In addition, the communicator's perceived level of expertise was manipulated, either by varying the level of detail conveyed in the utterance (high vs. low; Study 3a) or by varying the speaker's identity (CEO of a car company vs. an automobile fan website; Study 3b). In both cases, consumers were more confident that the complex project would be successfully completed when the communicator expressed the estimates in fine grained rather than coarse units. However, this effect was limited to high expertise communicators, who could plausibly have the relevant knowledge. For low expertise communicators, using fine grained units backfired – lacking high expertise, they seemed to offer information they were unlikely to have, thus undermining their credibility.

In combination, the present studies consistently show that consumers are sensitive to the unit in which time estimates are expressed: the finer the unit used, the more precise consumers perceive the communicated information to be, provided that the communicator can be assumed to have the relevant knowledge. The obtained findings are compatible with an analysis in terms of Grice's (1975) logic of conversation, which has received limited attention in consumer research. We will address the theoretical and managerial implications of this *unit effect* and discuss to which extent it may underlie related findings.

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1.3 Individual Papers: Aesthetics in Product and Advertising Design

Room: Birch Room

Chair: Meghan Boyd, Franklin and Marshall College

The Influence of Design Newness on New Product Evaluation

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Darren Dahl, University of British Columbia, Canada

Product innovations can be a source of appeal to consumers because these products offer them new benefits, thereby providing a powerful means for gaining a competitive advantage (Calantone, Chan, & Cui, 2006). Nevertheless, consumers are often reluctant to adopt innovations. This reluctance is the result of the learning costs associated with effectively using the new product and consumers' lack of understanding of the product's value. So far, research has demonstrated that analogical learning and mental simulation of product usage are effective cognitive tools to enhance comprehension of the benefits of product innovations (Gregan-Paxton, Hibbard, Brunel, & Azar, 2002; Zhao, Hoeffler, & Dahl, 2009). Although this has provided interesting insights for the successful communication of product innovations, many other factors that influence consumer responses towards innovations remain unexplored. Specifically, it has been argued that a better understanding of the value of product design for new product evaluation is desired (Rijsdijk & Hultink, 2009; Talke, Salomo, Wieringa, & Lutz, 2009; Veryzer, 1995). Should companies try to differentiate innovative products with novel and distinct designs or are more typical-looking designs for innovations preferred? This research contributes by investigating the effects of design newness on consumer responses towards radical and incremental innovations. Specifically, we explore how design newness affects the expected learning costs and, thereby, new product evaluation.

Learning-cost inferences refer to the cognitive effort that is required to make effective use of a new product (Mukherjee & Hoyer, 2001). Consumers may perceive innovations as relatively difficult to understand and use, which may frustrate and overwhelm them, resulting in lower evaluations and a reluctance to adopt these products. In comparison to incremental innovations, radical innovations impose a much larger learning burden because consumers have not had any experience with the new technology and thus lack a frame of reference for understanding these new products (Hoeffler, 2003; Veryzer, 1998).

Scholars have theorized that product design and the underlying technological change interact in determining how consumers respond to innovations (Creusen & Schoormans, 2005; Rindova & Petkova, 2007). By embodying an innovation in a design that closely resembles the prototype of the relevant category (low level of design newness), consumers are offered a desired frame of reference for understanding the innovation. When such a relevant product category schema becomes active in a person's memory and can serve as a source of information to learn about the new product (Moreau, Lehmann, & Markman, 2001a), consumers will transfer knowledge from this schema to the new product, resulting in the experience of lower learning costs and a more positive evaluation. In contrast, if an innovation is embodied in a product design with a high level of design newness, this novel design will emphasize the newness and incongruity of the product. Then, consumers may be unsure what knowledge can be transferred from the existing schema to the new product (Moreau et al., 2001a), resulting in the experience of greater learning costs and lower product evaluations. We hypothesize that this effect of design newness is especially relevant for radical innovations. The functional attributes of radical innovations are severely incongruent to existing products, which may make it difficult for consumers to access the relevant product category schemas

(Moreau, Markman, & Lehmann, 2001b). Consequently, consumers may only be able to transfer the knowledge that is necessary for understanding the product, if the radical innovation is embodied in a product design with a low level of design newness. For incremental innovations, the functional attributes are highly congruent to those offered by the products that are stored in consumers'

memory. Because of this congruity, consumers will readily access and use the relevant product category schema for incremental innovations. Accordingly, there is no need for an additional reconfirmation of this schema through product design and design newness will not affect consumer responses.

To test our hypotheses, we created stimuli for three product categories (digital camera, washing machine, hairdryer). Following the procedure of Moreau et al. (2001a), radical and incremental innovations were created for each product category by changing a product feature. A pretest ($n = 65$) showed that the radical innovations were indeed perceived to be more innovative than the incremental innovations. To manipulate design newness, a trained designer created six 3D line drawings for each product category. To avoid potential confounding effects, all drawings were evaluated on several control variables (attractiveness, ease of use, quality, functionality) in a second pretest ($n = 118$). For each category, two drawings were selected that did not significantly differ on the control variables, while demonstrating the greatest variation in design newness.

The main study used a 2 (type of innovation: incremental vs. radical) $\times 2$ (design newness: low vs. high) $\times 3$ product category $\times 4$ (order) mixed design. Only product category was a within-factor. Participants ($n = 130$) were asked to evaluate all three product categories on multi-item measures of attitude, expected learning costs, and attractiveness. ANCOVAs revealed significant interaction effects between type of innovation and design newness on attitude and expected learning costs. Specifically, participants evaluated the radical innovation more positively and predicted lower learning costs when its product design had a low level of design newness than when it had a high level of design newness. However, for the incremental innovation, design newness did not affect consumer responses. All product categories showed similar patterns of means. Furthermore, bootstrap analysis (Zhao, Lynch Jr., & Chen, 2010) revealed that learning costs mediated the effect of design newness on attitude.

In sum, our research contribution is centered in exploring the relationship between product design and the acceptance of innovations. Specifically, we demonstrate that design newness affects consumer responses to radical innovations. Consumers prefer a radical innovation that is embodied in a product design with a low level of design newness because this brings about fewer learning-cost inferences. Nevertheless, a potential drawback of such a product differentiation strategy is that consumers may not easily recognize the new benefits. Rather than using product design to achieve this goal, companies could use specific cognitive tools, such as imagination-focused visualization (Zhao et al., 2009).

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Lateral Orientation Affects Preference, Perceived Usability and Purchase Intent

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If a marketer were to turn to the literature for guidance on how to position a product within an advertisement, s/he would find conflicting results in terms of whether products are aesthetically preferred facing left or right. Given the sporadic results, s/he may reasonably conclude that facing direction does not matter and thus may orient products within an advertisement based simply on intuition or formatting practicalities. Results from the present research help reconcile these disparate results and helps inform the

marketer that spatial orientation is an important component that impacts consumer perceptions. Specifically, the direction a product is facing affects how consumers evaluate products.

In this paper, we limit our focus to the horizontal component of spatial orientation referred to as lateral orientation. Freimuth and Wapner (1979) consider lateral orientation as consisting of two parts: 1) the lateral position of an object along the horizontal midline and 2) the directionality of an object. The directionality of a product refers to the direction a product is perceived to be facing and/or moving. In a first experiment it is shown that spatial orientation has an effect on aesthetic preference. Precisely which components of a given spatial orientation affect aesthetic appreciation is clarified in a second experiment. In a third experiment we look at whether orientation impacts perceived usability. In a fourth experiment we find test whether orientation affects intent to purchase or usability and the mediator of the effect, using a real advertisement.

Past consumer research on aesthetics has largely focused on the design of the product itself (Bloch, 1995; Whitney, 1991) and shows that aesthetics affect consumer perceptions of product quality (Garvin, 1984; Zeithaml, 1988), product differentiation (Dickson & Ginter, 1987) and competitive advantage (Holt, 1985; Kotler & Rath, 1984). Less research has explored the aesthetic ramifications of how a product is oriented within a visual space, which can be referred to as a product's spatial orientation. In consumer research, spatial orientation has been shown to affect visual attention, eye movement (Janiszewski, 1998; Rosbergen, Pieters, & Wedel, 1997), and even perceptions of weight (Deng & Kahn, 2009). An understanding of spatial orientation is important for marketers since it is one of the first aspects of a product processed by the visual system (Flavell & Draguns, 1957). For instance, during brief exposures (< 5 s) products are assessed according to their spatial orientation while at longer exposures a more feature (design) based product assessment occurs (Freimuth & Wapner, 1979).

Presently, the literature remains conflicted about preferences for right vs. left-facing objects. Some studies have shown a preference for rightward (right facing →) directionality (Christman & Pinger, 1997; Freimuth & Wapner, 1979; Mead & McLaughlin, 1992), while others report instances where rightward directionality becomes insignificant (Christman and Pinger, 1997) or even a general preference (Banich, Heller, & Levy, 1989) for leftward (left facing ←) directionality. In addition, various studies have reported moderators of directionality preference such as handedness (which is correlated with hemispheric asymmetries) and cultural reading (Braine, 1968; Chokron & De Agostini, 2000; Christman & Rally, 2000; Heath, Mahmasanni, Rouhana, & Nassif, 2005; Nachson, 1985).

Support for rightward directionality comes, in part, from an attentional scanning hypothesis (Beaumont, 1985; Graffon, 1950; Wölflin, 1928). According to this hypothesis, rightward directionality is preferred because it coincides with the direction in which visual attention automatically orients across the visual field. Rightward scanning direction is thought to be the result of visual attention being initiated by the visuospatially oriented right hemisphere (Bradshaw & Nettleton, 1983; Bryden, 1982; Kosslyn, 1987).

In experiment 1 we found lateral orientation to affect preference. Specifically, we found a set of products directed inward to be aesthetically preferred over the same set of products directed outwards. These findings led us to conclude that aesthetic preference for directionality was dependent on whether the product was positioned to the right or left of center. Experiment 2 tested for other factors potentially affecting preferred directionality, such as hemispheric processing asymmetries and or reading and writing direction, and found no effect, thus confirming that an aesthetic preference for right versus left facing direction is dependent on the products lateral position relative to the center of the display. Experiment 3 looked at whether orientation impacts the perception of usability of a product. The results showed that inward facing products were perceived as more usable than outward facing ones. In experiment 4, a real advertisement (taken from a magazine and altered to obscure the brand name and logo) was used to determine whether orientation

might impact intent to purchase whether the effect is mediated by processing fluency. Results of this experiment showed that participants who saw the ad with the inward facing product (car) versus the outward facing product had a higher intent to purchase and higher usability rating of the product and that this effect was fully mediated by processing fluency. These effects do not covary with gender or handedness.

In general, the finding that the way in which a product is orientated within a display can have a significant effect on its perceived usability is surprising since nothing about the product itself has changed; rather it is merely displayed in a different lateral orientation. This result supports the view that product evaluations are partially the result of how the stimuli in question are processed and are not the result of the stimuli themselves.; studies by Winkielman et al. (2006) support this view. The biological and psychophysical literature offer possible explanations, and areas for future research, for the occurrence of a preference for inward (versus outward) directionality.

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The Importance of Being 'Well-placed': The Influence of Context on Perceived Typicality and Aesthetic Appraisal of Product Appearance

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The influence of certain product appearance properties (e.g., typicality, symmetry) on aesthetic appraisal of product appearance has been examined in prior research (e.g., Berlyne, 1960; 1971; Veryzer & Hutchinson, 1998). However, we lack an understanding of the influence of context on the perception of product appearance properties, and consequently, on aesthetic appraisal. This is problematic, because in real life consumers generally do not appraise products and their product appearance in isolation, but rather in a specific context, such as a retail setting or in an advertisement (cf. Bloch, 1995). The present research contributes to extant literature by investigating context effects on the aesthetic appraisal of product appearances. Specifically, we investigate context effects on the perception of typicality. Typicality, defined as a measure of goodness-of-example, is recognized as an important determinant of aesthetic appraisal (Hekkert, Snelders & Van Wieringen, 2003; Veryzer & Hutchinson, 1998). People aesthetically prefer typical over less typical objects because people have a tendency to enjoy what is familiar to them (Veryzer & Hutchinson, 1998). In this paper, we examine whether consumers consider the same product as more or less typical and thus more or less aesthetically attractive depending on the context in which it is presented.

Research has demonstrated that the context in which a target stimulus is presented can influence appraisal of that stimulus through assimilation or contrast effects. In the case of assimilation effects, the context is used as a reference frame and subjects judge stimuli in a direction similar to what the context expresses. Thus, a positive context will have a positive effect on the evaluation of the stimulus, while negative contexts have a negative effect. In the case of contrast effects on the other hand, subjects judge stimuli in the opposite direction from what the context expresses and, as such, a positive context has a negative effect and a negative context has a positive effect on the evaluation of the stimulus (Stapel, Koomen & Velthuisen, 1998). Past research has demonstrated that assimilation effects are likely to occur when the stimulus is ambiguous or relatively unknown (Herr, Sherman & Fazio, 1983). Then, the context is helpful in identifying the unknown object and in forming an impression about the target stimulus. Atypical product

appearances have a certain level of unfamiliarity. Consequently, consumers may use the context when forming their impression of atypical appearances, resulting in assimilation effects. In this paper, we assess that an atypical product appearance that is presented within a typical context will be viewed as more typical than when it is presented within an atypical context. Because perceived typicality is positively related to aesthetic appraisal, the atypical product will be considered more aesthetically attractive in a typical context. On the other hand, we assess that if the target stimulus is typical, it is easily identified. Hence, the context stimuli will not be necessary or even considered relevant in identifying and forming an impression about the target stimulus and contrast effects are likely to take place. Accordingly, a typical product in an atypical context will be viewed as more typical than when it is presented in a typical context. As a result of the higher perceived typicality, the typical product is considered to be more attractive in an atypical context. Two studies were conducted to test these hypotheses.

Study 1 used a 2 (product: typical/atypical) \times 2 (context: typical/atypical) between-subjects design ($n = 145$). To manipulate typicality of the product, two package designs for an apple juice carton were created and pre-tested. Also, a typical and an atypical context were created and pre-tested, which both consisted of pictures from 10 different product categories with either a typical or an atypical appearance for their product category. Respondents were asked to rate all products belonging to the context and the stimulus product on perceived typicality, perceived novelty, and aesthetic appraisal.

ANCOVAs revealed significant Product \times Context interactions. As expected, the typical product is contrasted to the context, which affects the perceived typicality and aesthetic appraisal of its appearance. Furthermore, results of a mediation analysis show that perceived typicality mediates the interaction effect of product and context on the attractiveness of the product appearance. No assimilation effects were found for the atypical product. A possible explanation for this lack of effect is the experimental method wherein all context pictures were individually rated, making differences in typicality between the different products apparent. If people are aware that their experience merely reflects the influence of high repetition or a preceding prime, the resulting experience is ignored and will not affect their impressions (Reber, Schwarz & Winkielman, 2004).

In Study 2 ($n = 99$), we aimed to address this issue by investigating the effects of context on perceived typicality and aesthetic appraisal using a different, more common setting, namely advertisements. Two new stimulus products (typical and atypical package design for a water bottle) were created and pre-tested. These target stimuli were presented within pre-tested advertisements that depicted either a typical or an atypical mountain scenery, resulting in a 2 (product: typical/atypical) \times 2 (context: typical/atypical) between-subjects design.

Again, ANCOVAs revealed significant interaction effects, providing support for the expected assimilation and contrast effects. When a typical product is presented in a typical context, it is viewed as less typical and less attractive than when it is presented in an atypical context. In contrast, when an atypical product is presented in a typical context, it is viewed as more typical and more attractive than when it is presented in an atypical context.

Summarizing, when a product is presented in a specific context, contrast or assimilation effects on perceived typicality and aesthetic appraisal occur depending on the degree of typicality of the product appearance. Our findings are relevant for marketing or promotion strategies. In their choice of contexts in promotion or marketing strategies, companies should take the typicality of the product appearance in account, because this could greatly increase or decrease the aesthetic appraisal of the product.

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The Future of the Ideal Body in Print Media

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After the massive response *Glamour* magazine received from featuring a naked plus sized model in their September 2009 issue, it became clear that the current thin image in the fashion industry was not favored by most women. This study investigates whether or not the self-reported amount of magazines women read correlates with their likelihood of having a negative body image and if women want to see and/or relate better to seeing realistic images (defined as more in keeping with an average healthy woman, American sized 4-10, even plus-sized by modeling standards, American sized 12-16) in the media.

In prior research on the use of realistic models in fashion photography, high need-for-cognition women were more likely to be affected after viewing the image (Peck & Loken, 2004). They found that the ads made them self-reference more and have more positive thoughts, which in turn created more positive thoughts about themselves in this non-traditional frame (Peck & Loken, 2004). All of this information shows that there may be positive implications of using realistic models for both society and the company producing the advertisement. If women self-reference with the model, they will probably be more likely to remember the product when shopping later. This past finding helped create two hypotheses: women who read more magazines have a lower self-esteem because they see unrealistic images more often and whether or not women relate to realistic images in the media.

To find out if women want to see more realistic images in fashion, a survey was distributed to 70 women, ages 18-22, on the campus of a small liberal arts institution in the northeastern United States. Participants completed the study in two separate, supposedly unrelated, studies. The first study was given under the guise of learning about consumers in order to produce a new magazine. This portion of the study asked participants their age, magazine type preferences (e.g., fashion, health, etc.), and editorial content preference (e.g., articles, beauty stories, advertisements, health and fitness ideas, and thin attractive models) for what they would like in their perfect magazine.

The second part of the study assessed body image and had five parts; two questions on age and self perception of body image, the Rosenberg Self-Esteem Scale (Allison, 1995; 1 = strongly agree, 4 = strongly disagree), the Attitudes about Weight and Dieting Scale (Allison; 1995; 1 = strongly disagree, 9 = strongly agree), the Contour Drawing Scale (Allison, 1995) where they were asked to choose the body type that represented the media, their ideal, and their current type, and four questions on the media image of women. The true nature of the study was kept from the participants.

A repeated measures ANOVA of the ideal, current, and media body image placement on the Contour Drawing Scale revealed that the current media representation of women is neither relatable nor obtainable, $F(1,58) = 112.08, p < .00001$, Ideal $M = 4.14$, Current $M = 5.59$, Media $M = 2.19$. Women seem to prefer a body type portrayal that is not currently available in magazines. It also showed considerable evidence that the media's portrayal of body image is extremely far removed from the ideal women want for themselves. The statistical average was a four on the nine point scale. This number corresponds to a shapely body, similar to the 1950s Marilyn

Monroe look. The media portrayal they chose was a 2 on the scale. This drawing's ribs are showing. If this is so far from how women want to look, why are we still using this super thin image? No matter how advertising is influenced, be it that consumers influence the advertising or the advertising influence consumers, it is necessary that a change be made to reflect what society wants.

A correlation revealed an inverse relationship between the amount of magazines participants read and their self-reported self-image, self-image: $r(68) = -.101, p < .05$; Rosenberg: $r(68) = .082, p < .05$; attitudes: $r(68) = .044, p < .05$. This inverse relationship was not significant with their self image or either of the body image measures. The Rosenberg Self-Esteem Scale and the Attitudes about Weight and Dieting scores had a trend with magazines, with one going up in conjunction with the other. However, because the results were not significant for any of these, the relationship between the variables cannot be determined.

The biggest limitation in this study was the fact that college students usually do not have much time to read magazines. This may have skewed the data. The results show that women can no longer relate to the unrealistic images of women currently featured in magazines. In conjunction with female consumers' tendency to self-reference, companies would benefit by increasing their usage of healthier women in advertisements. The consumer will remember companies they can relate to for future purchases. Positive thoughts about themselves generated from the model could result in sales. With the uncertain economy and more people spending less on frivolous purchases, the fashion industry cannot afford to lose any customers. For future study, it would be interesting to see how the emphasis on dieting and exercise in our culture contributes to negative self-esteem. Potentially if the direction is on more realistic images, this could still cause women to feel badly about themselves.

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1.4 Individual Papers: Fluency and Metacognitive Effects

Room: Oak Room

Chair: Elise Chandon Ince, Virginia Tech

Freedom of Choice, Ease of Use, and the Formation of Consumer Preferences

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Gerald Häubl, University of Alberta, Canada*

A great deal of attention has been focused on the potential power of certain information technology companies that have gained dominant market shares (e.g., Microsoft, Google, Apple, etc.). Such companies have the opportunity to, in effect, train consumers in a manner that is specific to proprietary technology. Once consumers have learned to use the firm's unique interface, it may be difficult for them to switch to another interface that requires the acquisition of new skills and/or allows only for limited transfer of current skills. This type of competitive advantage can be characterized as "lock-in" based on firm-specific training (Shapiro and Varian 1999).

This notion has been formalized in models of human capital, which suggest that the acquisition of firm-specific user skills tends to result in an incumbent firm or product gaining a dominant market position because this renders consumers more likely to use the incumbent in the future (Ratchford 2001; Stigler and Becker 1977) and, compounding this effect, less likely to consider alternative products (Wernerfelt 1985). The bottom line of this body of research is that skill acquisition is a powerful determinant of consumer preference, with the key to success being the ability to install in a customer base a set of non-transferable user skills before exposure to a competitor (Gefen et al. 2003; Murray and Häubl 2007; Venkatesh et al. 2002). This leads us to our fundamental research question:

How does freedom of choice, or the lack thereof, affect consumer preference among products that require user skills (such as computer interfaces)?

We approach this question from two theoretical perspectives. The first, outlined above, argues that an interface with a dominant market share benefits from the absence of competition because consumers acquire interface-specific user skills. In contrast, the second perspective proposes that the advantage that a market leader has in being able to install a set of non-transferable user skills in its customer base is offset by a psychological force that causes humans to react against perceived constraints on their freedom of choice. According to the theory of psychological reactance, individuals react negatively when their freedom of choice is constrained (Brehm 1966; Brehm and Brehm 1981). Similarly, we predict that when consumers are free to choose among competing interfaces, they will demonstrate a greater preference for an incumbent interface relative to an attractive new interface. Conversely, we hypothesize that consumers who have had their freedom of interface choice restricted will tend to perceive the incumbent interface that they were constrained to use to be less desirable.

Although the majority of prior research into the phenomenon of reactance has focused on the perceived attractiveness of alternatives, studies have demonstrated that reactance can also affect individuals' perceptions of the process of acquiring, or interacting with, alternatives (e.g., Carver 1977; Edwards et al. 2002; Snyder and Wicklund 1976). In the realm of human-computer interaction, an important indicator of process satisfaction is the perception of how easy or difficult a particular interface is to use (e.g., Venkatesh et al. 2003). Therefore, we predict that constraining freedom of choice will not only affect the perceived attractiveness of the interface that a consumer is restricted to, but that it will also influence the interface's perceived ease of use. That is, consumers whose initial choice of interface is restricted will tend to perceive the incumbent interface that they must use as more difficult to use than those whose choice is not restricted.

Our main experiment employed a single-factor design wherein freedom of choice was manipulated at one of two levels – i.e., participants were randomly assigned to one of two conditions that differed only in terms of whether they were free to choose the computer interface they used to complete information search tasks in a series of nine “incumbent” trials. In the free condition, subjects were allowed to choose, before each incumbent trial, which of two interfaces (A or B) they wished to use for that trial. By contrast, participants in the constrained condition had to complete all nine of the initial trials with the same incumbent interface. After using the incumbent interface(s) A and/or B, participants were given the opportunity to switch to a new “competitor” interface (C). Specifically, in both conditions, the nine incumbent trials were followed by one additional round of the search task – the competitor trial – for which participants used Interface C, an interface that they had not seen previously and that had been found to be superior to both Interfaces A and B in a pretest. This was followed by the critical choice task, which was designed to measure participants' ultimate interface preference. In this task, all subjects were asked to choose one interface that they then had to use for each of a number (unknown to them at that point) of final rounds of the task. Specifically, they chose between the competitor (Interface C) and the incumbent interface. (For participants who were free to choose between Interface A and Interface B on each of the nine incumbent trials, whichever of the two they had used most frequently was designated as the incumbent for the purpose of the preferential choice task.)

The results provide strong support for an effect of psychological reactance on consumers' interface preferences that is mediated by perceived ease of use. The key contribution of this work is the counterintuitive finding that, relative to being able to choose among competing interfaces, being constrained to using a single interface to complete a task decreases users' perception of the interface's ease of use and renders them less likely to have a preference for it once an attractive alternative interface becomes available. This is

the case despite the fact that unconstrained users have the opportunity to develop more general skills, which could allow them to switch to a new interface more easily than constrained users, who have experience with only one interface.

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Prominence in Queuing: Queue Length Versus Basket Size

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Time spent waiting in a queue may affect consumers' satisfaction with a shopping trip. Previous research has found that perceived waiting time is negatively correlated with overall satisfaction in diverse settings, including supermarkets (e.g., Tom & Lucey, 1997). Given its influence on satisfaction, it is important to know how consumers perceive different queues and their corresponding waiting times.

In many situations, consumers assign themselves to a particular queue. Line speeds may differ due to a number of unpredictable circumstances (Groth & Gilliland, 2001). In this research, we focus on the relative impact of queue length and average basket size on consumers' estimated waiting time in the queue.

Both the queue length and the average basket size have a different effect on the total waiting time in the queue. To understand this, note that the service time for any given customer consists of a variable, basket content-related and a fixed, payment-related time cost (e.g., Bell et al., 1998). We propose that, because the time to pay is a fixed cost from the perspective of a *single* customer, consumers may tend to overlook this aspect when choosing between different queues. In other words, consumers may fail to realize that for queues of different length, the total time to pay also varies. As a result, we expect that average basket size will be more prominent in checkout choice than queue length (cf. prominence effect, Fisher et al., 1999). As a result, when consumers are confronted with two queues for which the objective total waiting time is equivalent, the queue with lower average basket size will appear more attractive.

To identify two queues that differ in length and average basket size but are equal in total waiting time, we conducted a timing study in a local supermarket. This indicated that the total time spent waiting in a line is the same for a queue of 2 customers with many products in their baskets as for a queue of 5 customers with few products in their baskets ($t(48)=.657, p=.514, M_{\text{shortqueue}}=445,12\text{sec}, M_{\text{longqueue}}=464,60\text{sec}$). Although the total waiting time was equivalent, the total time to scan the basket content was higher in the short queue ($t(48)=2.623, p=.013, M_{\text{shortqueue}}=336,80\text{sec}, M_{\text{longqueue}}=277,80\text{sec}$), whereas the total time to pay at the checkout was higher in the long queue ($t(48)=5.367, p<.001, M_{\text{shortqueue}}=108,32\text{sec}, M_{\text{longqueue}}=186,80\text{sec}$). If consumers make accurate decisions, then, they should be indifferent between these two options. If they ignore the payment time, they should prefer the longer queue. Several studies investigated whether this is the case.

In study 1, 40 undergraduates were exposed to two photographs depicting the two above described queues. The pictures represent the same people and were counterbalanced across participants to avoid order effects. Results revealed that participants do not perceive both queues as identical since subjects significantly preferred the long queue where consumers have little loaded shopping baskets (due to lower waiting time expectations, $M_{\text{long queue}}=7,33\text{min}, M_{\text{short queue}}=9,26\text{min}, p=.001$). It appears, then, that basket content is a

much prominent attribute (cf. prominence effect, Fisher et al., 1999) when people decide on a checkout queue than queue length (due to larger mean differences in waiting time expectations, $MeanDifference_{short/longqueue}=2,97min$, $MeanDifference_{little/fullyloadedbaskets}=4,90min$).

We believe that consumers fail to take the total time to pay into account, as a result of which they focus on the average basket size. Two studies test this idea more thoroughly by manipulating the salience and the extent of the time to pay. In studies 2 and 3, participants were exposed to the same pictures of the long and short queue and had to indicate their preferred queue. Again, participants favored the long queue due to the impact of basket content ($t(30)=-2,17$, $p=.038$; $t(32)=-5,64$, $p<.001$, respectively). After respondents had made their choice, we indicated that the electronic payment system had been upgraded and was extremely fast (study 2) or was experiencing severe connection difficulty, resulting in slow payments (study 3). Participants were asked to indicate for this ‘new’ situation what their preferred queue was. When the payment was fast (study 2), subjects still favored the longer queue ($t(30)=-2,38$, $p=.024$). In contrast, when the payment was slow (study 3), participants significantly switched to the shorter queue in which consumers have many products in their baskets ($t(32)=4,60$, $p<.001$).

Study 4 aimed to increase the generalizability of our findings in a real-life setting, while drawing upon a different age sample. The two queues under study were constructed outside a local supermarket with the same total amount of products in both waiting lines. Shoppers were asked to indicate which queue they would choose. After their choice, they received information on the payment system (fast vs. slow). The results of this field study supported our previous findings with a significant preference for the longer queue when the payment system was not yet made salient ($p=.001$). However, when it was mentioned that the payment system was slow, shoppers switched to the shorter queue ($p<.001$). Finally, the total amount of products in the two fully loaded baskets of the short queue was significantly overestimated by consumers ($t(24)=7,573$, $p<.001$, $M=12$), indicating that the “whole” (fully loaded basket) looks bigger than “the sum of the parts” (little loaded baskets).

In four studies, we demonstrate that the two queues with identical waiting times are not perceived as identical by consumers. We find that while consumers prefer longer queues, this preference disappears when attention is focused on the time to pay at the checkout. To the best of our knowledge, prior studies concerning queuing perceptions only made references with regard to e.g. queue length (e.g., Bateson & Hui, 1990). Consequently, our results fill a literature gap by proving that the average basket size appears to have a bigger impact on checkout choices than queue length. However, when customers are reminded of the time to pay, queue length gains in prominence in the checkout choice.

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The Effect of Scarcity on Product Evaluation: Role of Frequency of Exposure, Cognitive Load, and Disconfirmation of Scarcity

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Marketers often use scarcity to influence consumers, with announcements such as “hurry, limited quantities”, “until stocks last,” or “few tickets left for this event.” Past research indicates that scarcity generally has a positive effect on product evaluation, because consumers infer that scarcity is a consequence of high demand for the product, which in turn arises from superior value offered by the product^{1,2,3}. In the present research, we argue that consumers can also make a second type of inference about scarcity – namely that scarcity is perceived as a signal of manipulative intent on the part of marketers to increase demand for the product. For example, it is

possible for marketers to artificially restrict the quantity of product being offered in a given retail outlet or sales territory, and thus send a false signal of popularity among consumers. In summary, therefore, we argue that two kinds of inferences are possible when consumers are faced with scarcity: value inference and manipulative intent inference. Greater the value inference, the more positive would be the effect of scarcity on product evaluation; the greater manipulative intent inference, the less positive would be the effect of scarcity on product evaluation. Based on this framework, we specify three moderators, namely frequency of exposure to scarcity

claims, cognitive load, and disconfirmation of scarcity that influence the interpretation of scarcity as value or manipulative intent, and hence the effect of scarcity on product evaluation.

Study 1 focused on frequency of exposure to scarcity claims. We argued that the individuals who are exposed to many (compared to few) scarcity claims, i.e., high frequency of exposure, are more likely to interpret scarcity claims as a signal of manipulative intent. For example, consider an individual who is reading a magazine where several ads contain statements such as “Hurry, few items left in stock” and “Only a limited number of products released”. Seeing repeated use of scarcity claims, individuals may wonder if these claims are really manipulative techniques used by marketers to increase sales. To the extent individuals see scarcity as a signal of manipulative intent, the positive effect of scarcity on product evaluation will be weakened. In contrast, when frequency of exposure to scarcity claims is low, consumers are less likely to infer manipulative intent, and hence scarcity would have a stronger positive effect on product evaluation. Participants in this study were told that they were participating in two independent experiments. In the first experiment, frequency of exposure was manipulated in the magazine by inserting scarcity claims into either one ad (low frequency) or four ads (high frequency). In the second experiment, the participants were asked to rate a new line of sunglasses available through an online shopping website. A printout of the online shopping webpage manipulated scarcity using limited quantities of the product. We developed a two-item scale to measure the inference of scarcity claims as a manipulative intent: “The ad was being honest about the number of sunglasses available for sale” and “The ad tried to artificially increase sales by mentioning the number of sunglasses available for sale.” This two-item scale was adapted from the six-item scale measuring inferences of manipulative intent validated in past research⁴. We predicted and found that scarcity increased purchase intent and WTP when frequency of exposure to scarcity claims was low ($M = 2.60$ vs. 3.96 ; $t(48) = 2.31$, $p < .03$ & $M = \$37.80$ vs. $\$65.08$; $t(48) = 2.91$, $p < .005$), but not high ($M = 2.52$ vs. 2.32 ; $t(48) = -.40$, $p < .68$ & $M = \$40.36$ vs. $\$27.80$; $t(48) = -1.51$, $p < .13$). Consistent with our hypothesis, respondents were more likely to perceive scarcity as a manipulative intent when frequency of exposure was high, compared to low ($M = 7.70$ vs. $M = 5.38$; $t(48) = -4.54$, $p < .001$).

Study 2 focused on cognitive load. Cognitive load has typically been operationalized by memory tasks, such that individuals with multiple items in memory said to be under higher cognitive load than those with fewer items in memory. Cognitive load is a practically important factor in the marketplace since consumers are often multitasking when exposed to advertising or store promotions. Since inference of manipulative intent casts doubt on the veracity of the scarcity claim, such inferences are likely to require more cognitive resources on the part of the individual. When individuals are under high cognitive load, they have limited cognitive resources. As such, these individuals may lack the resources required to infer manipulative intent, which is an inference that requires greater cognitive resources. Hence these individuals are likely to fall back on the heuristic inference of “scarce = good,” and this interpretation of scarcity as a signal of value would lead to a positive effect of scarcity on product evaluation. In contrast, when cognitive load is low, individuals possess greater cognitive resources. As such, they can use their cognitive resources to make inferences about manipulative intent. To the extent individuals perceive scarcity as a signal of manipulative intent, the positive effect of scarcity on product evaluation should be weakened. Participants in this study were told that they were participating in two independent experiments. In the first experiment, cognitive load was manipulated by asking participants to memorize either a seven-digit number (high cognitive load condition) or a two-digit number (low cognitive load condition). In the second experiment, participants were

asked to rate wines available through an online shopping website. A printout of the online shopping webpage manipulated scarcity using limited quantities of the wine products. We predicted and found that scarcity had a stronger positive effect on product evaluation when cognitive load is high, compared to low. When cognitive load was high, 90% of participants chose the wine promoted with high scarcity, compared to 10% of participants who chose the wine with low scarcity. In contrast, when cognitive load was low, only 64% of participants chose the wine promoted with high scarcity, versus 36% of participants who chose the wine with low scarcity.

Study 3 focused on disconfirmation of scarcity, defined as information that appears to contravene the scarcity claim. We have argued that individuals make value or manipulation inferences about scarcity, and these inferences determine the effect of scarcity on product evaluation. Past research indicates that, after making inferences, individuals often search for additional information to check the validity of their inferences⁵. This search process can yield information that disconfirms the veracity of the scarcity claim. For example, consumers informed that supplies of a product are limited could see shelves fully stocked with the supposedly scarce product. Fashion products advertised as available only in limited quantities could be widely seen as being widely used among consumers. When disconfirmation of scarcity is absent, we argue that individuals should rely on the value inference of scarcity. The value inference is based on an evolutionary association of scarcity with value, an association further reinforced by the logical link between scarcity and demand. Consequently, the “scarce = good” inference is likely to be relatively automatic and instinctive, and hence the default inference of scarcity. And to the extent individuals interpret scarcity as signal of product value, scarcity should have a positive effect of scarcity on product evaluation. Next, consider the case where disconfirmation of scarcity is present. This can arise when consumers are exposed to information that casts doubt on the veracity of the scarcity claim, such as ample stocks or wide availability of the product. We argue that such information can increase the salience of manipulative intent on the part of the marketer, since the information points towards the use of false scarcity to increase sales. To the extent individuals see scarcity as a signal of manipulative intent, the positive effect of scarcity on product evaluation should be weakened. Study 5 conducted a field study in a real store, using a product category (i.e., USB flash drive). Participants were told that they would play the role of a mystery shopper to evaluate the retail environment of their university bookstore. They would be asked to visit the bookstore, buy a product assigned to them by random draw, and provide their impression of the bookstore’s retail environment. Scarcity was manipulated using the number of items available for sale. Disconfirmation of scarcity was manipulated, according to whether or not there were visible excess quantities of the product promoted with the scarcity claim. The results showed that when disconfirmation of scarcity is present, scarcity can backfire and lead to decreased product choice. When disconfirmation of scarcity was absent, 70% of Participants chose USB flash drives in the high scarcity condition, compared to USB flash drives in the low scarcity (30%). In contrast, when disconfirmation of scarcity was present, only 37.5% of participants chose USB flash drives with promoted with high scarcity, compared to USB flash drives in the low scarcity (62.5%).

In summary, the three studies reported herein make a theoretical contribution by identifying a new psychological mechanism (i.e., *why*) and corresponding boundary conditions (i.e., *when*) of scarcity, a tool that is widely used in marketing communications.

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If It's Hard to Read, It's worth It: When Metacognitive Effort Enhances Perceptions of Product Value

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Extensive research demonstrates that people's attitude toward a product becomes less favorable when product information is hard to process. Song and Schwarz (2008) showed that people misread the difficulty of reading a description of a target behavior as indicative of the difficulty of executing it. For instance, lowering the processing fluency of a description of an exercise routine or a cooking recipe significantly increased perceptions of required effort and skill and decreased one's willingness to engage in these tasks. Recent research (Pocheptsova, Labroo, and Dhar 2010) shows that in the context of special-occasion products, disfluency increases product attractiveness by making it appear unique or uncommon. Building on this research, we propose that disfluency has a positive effect on consumers' evaluative judgments in domains in which skill is an important driver of value. Consumers frequently hire professional agents or contract services because of their specialized skills and expertise. In such contexts, will product valuations increase when processing is less (rather than more) fluent? We examine this hypothesis in three studies.

In study 1, fifty-eight students were randomly assigned to either a low or high fluency condition. All participants were presented with a description of a service that helps students apply to graduate programs. After reading the information, participants provided their evaluations of the target service. Processing fluency was manipulated via background contrast (light blue font vs. black font). As expected, participants in the low fluency condition rated the service description as more difficult to read than participants in the high fluency condition. More interestingly, those in the low fluency condition reported higher willingness to pay (\$191.2 vs. \$76.4) for a one-subscription ($F(1, 56) = 3.7, p = .058$), and perceived greater value in the target service (5.0 vs. 4.1) than those in the high fluency condition ($F(1, 56) = 6.9, p < .05$). Lowering processing fluency increased participants' perceptions of how much effort applying to graduate school takes and of how much expertise the target service provided. Notably, we found a significant three-path mediation: perceived effort mediates the effect of fluency on perceived expertise, which then mediates the effect of perceived effort on service value ($\beta_1 = .65, p < .001, \beta_2 = .42, p < .01, \text{ and } \beta_3 = .61, p < .001$, cf. Taylor, MacKinnon and Tein 2008).

Recent research indicates that disfluent stimuli are perceived as riskier because they are viewed as more novel/less familiar than fluent stimuli (Song and Schwarz, 2009). Thus, in study 2, we predicted that when an avoidance goal is made salient, disfluency will reduce consumers' valuations, despite its positive effect on skill inferences. One hundred and nine undergraduate students were randomly assigned to a 2 (goal: approach vs. avoidance) x 2 fluency (high vs. low) between subjects design. Participants were asked to imagine that they had relatives coming to visit and that they were searching for a restaurant for dinner on a Saturday evening. In the approach goal condition, participants read that they could be adventurous in their restaurant choice, as their relatives like trying new things. In contrast, in the avoidance goal condition, participants read that they should be conservative in their restaurant choice, as their relatives avoid trying new things. All participants then read a description of a local restaurant. The manipulation of processing fluency was the same as in study 1. As expected, there was a significant goal by fluency interaction on participants' likelihood to select the restaurant ($F(1, 104) = 8.3, p < .01$). While in the approach goal condition disfluency enhanced evaluations of the restaurant; this effect was reversed in the avoidance condition. Moreover, those in the low fluency condition expected the restaurant's chef to be more skilled ($F(1, 104) = 3.9, p = .05$), and the restaurant to be more novel/less conventional than those in the high fluency condition ($F(1, 104) = 5.6, p < .05$). Employing the multiple mediator model developed by Preacher and Hayes (2008), we found that in the approach condition, of the two paths through competence (ratings of the chef's skills) and perceived risk, only the one through competence was significant, whereas in the avoidance condition, only the path through risk was significant. Results supported the hypothesis that greater disfluency leads to greater competence, which in turn leads to greater perceived value, but only in the approach condition.

Recent research indicates that consumers perceive non-profit companies as warmer but less competent than for-profit companies and vice versa (Aaker, Vohs, and Mogilner 2010). If competence mediates the effect of disfluency on perceived value, we hypothesize that this path will be valid for for-profit firms only and will not exist for non-profit companies. Thus, in study 3, we predicted that the positive impact of disfluency on value will only hold for for-profit firms. One hundred and twenty four students were randomly assigned to a 2 (organization type: for profit vs. non-profit) x 2 fluency (high vs. low) between-subjects design. Participants were asked to imagine that they were searching for a career coach service, which was described as either career management firm” called CompassPoint.com (for-profit condition) or a “non-profit organization” called CompassPoint.org (non-profit condition). The manipulation of processing fluency was the same as in study 1 and 2. As expected, a test of the organization type by fluency interaction was significant ($F(1, 119) = 13.7, p < .001$). When the career coaching company was labeled as for-profit condition, disfluency enhanced its evaluations while this effect was reversed when the company was labeled as non-profit. We found similar results for how competent the company was perceived. A moderated mediation effect emerged as reflected by an interaction between organization type and disfluency ($t = 2.92, p < .01$). Further analysis revealed that the mediation effect found in study 1 and 2 (disfluency → competence → perceived value) occurred when the company appeared as a for-profit, but did not occur when the company was non-profit.

Overall, our findings point out to a relatively robust positive effect of disfluency on consumers’ evaluative responses. Describing a service provider less fluently increased perceptions of its expertise and enhanced overall evaluations.

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1.5 Symposium: Dissociation from Marketing Artifacts: The Importance of Who You’re Not

Room: Spruce Room

Chair: Tandy Chalmers Thomas, Queen's University, Canada

Discussion Leader: Katherine White, University of Calgary, Canada

Inaccurate Beliefs about Impressions Affect Product Valuation

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Consumers sometimes strategically purchase products to affect the opinions of others - “conspicuous consumption” (Mason, 1984), or impression management more generally (Leary, 1995); and observers make inferences about individuals based on their outward behavior and appearance (Kenny, 2004), including the products that they own (Gosling, Ko, Mannarelli, & Morris, 2002). Although there is little research that has examined the *specific* impressions that consumers attempt to create through product display, it has been shown that consumers will avoid certain products to avoid particular impressions, such as being perceived as cheap (Ashworth, Darke, & Schaller, 2005) or a member of an undesirable reference group (White & Dahl, 2006).

The current work extends the existing literature in two ways: first, by examining whether the mere prospect of creating an undesired impression – i.e. where there are no immediate impression management concerns – is capable of influencing product valuation. Second, we examine the accuracy of such concerns. We suggest that product users are likely to overestimate the impact of product

use on others' impressions, and therefore over- or under-value the product accordingly, due to their attention being focused on the product and away from other features of their person that are also likely to impact impressions.

Study 1 examined whether concerns about the impression a product might create could influence the amount consumers are willing to pay for the product. We chose an item that was likely to be used in public (an MP3 player) and manipulated its color to evoke impression management concerns. Specifically, we predicted that when the product was offered in a feminine color, men, but not women, would worry about the impression it might convey.

Ninety-eight students (52% women) participated in a 2 (product color: pink vs. black) x 2 (gender) between-subjects factorial design in which they placed bids in a real, incentive-compatible auction for either a pink or a black MP3 player.

We found that men bid significantly less for the pink player than the black player (M 's = \$41.20 vs. \$84.43; $F(1, 94) = 22.54, p < .001$), while there were no differences for women (F 's < 1). Mediation analyses of the men's results found that the effect of product color on WTP was mediated by impression management concerns (and not liking of the color).

Study 2 was designed to provide experimental evidence that the effects in the previous study were indeed caused by impression management concerns, and not an intrinsic aversion to the color. Ninety-nine males bid on either a pink or silver MP3 player. In half the cases, the player was sold with a case (but not in the case) that could be used to disguise the color. As expected, a significant Color x Case interaction ($F(1, 95) = 6.67, p < .05$) showed that the average bid for the pink player was significantly less than the silver player when it was sold without a case (M s = \$90.75 vs. \$130.75; $F(1, 95) = 7.47, p < .01$), but there was no difference when both players were sold with cases ($F < 1$).

Study 3 examined the accuracy of consumers' impression judgments by comparing beliefs about their own impressions to impressions of another consumer using the same product. Ninety-one students (57% women) participated in a 2 (product color: pink vs. black) x 2 (gender) x 2 (target: self vs. other) between-subjects factorial design. In the "self" conditions, participants saw an MP3 player (embedded in a variety of other products) and rated what they thought other people would think of them if they were seen using this product. In the "other" conditions, participants saw a picture of a male in a gym setting who happened to be wearing the MP3 player. Consistent with previous results, men, but not women, believed they would be perceived less positively wearing a pink player (M s = 2.08 vs. 3.35; $p < .001$), but neither men nor women formed a less positive impression of the target when he was wearing the pink player ($F < 1$).

The final study investigated the possibility that consumers' inaccurate beliefs were due to a failure to account for other aspects of their person likely to influence their impression. To test this, we primed elements of consumers' person that might influence impressions by having consumers rate, in an ostensibly unrelated study, the impact of a variety of personal features on others' perceptions.

Two-hundred and four students (50% women) participated in a 2 (prime: other cues primed vs. no prime) x 2 (gender) between-subjects factorial design in which they responded to questions about how they would feel wearing a pink MP3 player (no other colors were included in this study). As before, men were less willing to wear the pink player than were women (M s = 2.17 vs. 3.25; $F(1, 202) = 32.43, p < .001$). However, a significant interaction ($F(1, 202) = 6.14, p < .05$) indicated that the prime increased the likelihood that men (M s = 1.80 vs. 2.54, $F(1, 202) = 7.62, p < .01$), but not women ($F < 1$), would wear the player.

The current work demonstrated that the mere prospect of a product creating an undesired impression was sufficient to lower consumers' willingness to pay for it. Consumers' appeared, however, to overestimate the ability of the product to influence impressions. Observers perceived another man no differently when seen wearing the same product that men would not wear themselves. This effect appeared to be due to a failure to take into account other person-related cues that are likely to "dilute" the effect of a product on an individual's overall image.

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Dissociating from Identity Congruent Ads: The Dirty Laundry Effect

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What happens when a social identity (SI) congruent ad backfires? An abundance of consumer research demonstrates that portraying a SI salient to a target market will persuasively connect the ad with consumers' identities, thereby increasing ad liking (e.g., Reed, 2002). However, our exploratory study discovered that this is not always the case. Here is a runner's response to this ad communicating a 'runner' identity: "I'm not a big fan of this. It does speak a lot about the class of what a runner is and I've done similar things. It is somewhat accurate but what bothers me is all these people looking at this guy thinking 'You're an absolute dork. You're a complete tool.'"

This ad fulfills its goal: The runner identifies with the SI portrayed in the ad. Yet, he nonetheless wants to dissociate himself from the ad because of the way it presents the SI to the masses. We propose that this ironic pattern of results occurs because consumers view SI congruent ads as a type of self-presentation, aware that ads can communicate one's SI to a mass audience. Specifically, consumers who hold an identity portrayed in an ad are likely to generate reflected appraisals (RAs) (i.e., presume how others view them) (Cooley, 1902/1922) based on the ad, and evaluate the ad accounting for those appraisals.

Through two studies, we demonstrate the role of RAs in SI congruent ads. Study 1 finds that these ads (i.e., ads that are SI congruent but generate negative RAs) act as a self threat, leading to defensive processing, which ultimately results in a positive ad attitude, which prior research would lead us to expect for SI congruent ads. However, study 2 identifies an important boundary condition to this effect: the ad's audience. Here, we show that when the ad has a general audience, including non-SI holders, negative appraisals override the impact of SI congruence, as a result of self-presentation concerns, leading to dislike for the ad, despite its resonance with the SI-holder's identity. We present the details of these studies in brief below.

In Study 1, as expected, we find that SI holders have a positive attitude toward a SI congruent ad, even in the face of negative appraisals, when the ad resonates with their identities. This is because SI holders view the negative appraisal as a self threat, respond defensively to the appraisal to protect their self-image (e.g., Schwinghammer, Stapel, & Blanton, 2006), and end up liking the ad. We tested this by priming undergraduates with their student SI and showing them an ad depicting this SI that could be perceived as positive or negative. We manipulated whether the ad resonated with participants' SI using a self-referencing (SR) prime, which was embedded in the ad. Participants also read a news article about the ad in which the negative appraisal was embedded. Ad attitude was

the dependent variable, on a 7-point scale (Holbrook & Batra, 1987). In the face of a negative appraisal, participants in the SR condition had a higher ad attitude than participants in the no SR condition (SR = 4.00, No SR = 2.78; $F(1,201) = 7.15, p < .01$).

Study 2 identifies an important boundary condition to this finding, illustrating that resonating with a consumer's SI is not enough. Specifically, we explore the role of who is viewing the ad (i.e., ad audience). As expected, we find that when an ad generates a negative appraisal and has a general audience (GA), which includes non-SI holders, SI holders' ad attitudes are lower than when the ad's audience is strictly SI holders (i.e., an internal audience - IA). We call this pattern of results the *Dirty Laundry Effect* (DLE) because, when an ad perceived to negatively portray a SI is seen by the masses, it is akin to airing the SI's 'dirty laundry.' This occurs because an ad with a GA is similar to the ad being 'public,' whereas an ad with an IA is 'private.' In public situations, individuals tend to develop self-presentation motives (Schlenker, Dlugolecki, & Doherty, 1994; Tice, 1992), which in this case causes the ad that induces a negative appraisal to be disliked. On the other hand, in private, the same ad with the same negative appraisal leads to higher ad liking driven by defensive processes (as shown in study 1).

To test for the DLE, study 2 closely mirrored the procedure of study 1, with the following changes: 1) SR was primed for every participant, 2) we manipulated ad audience (GA vs. IA), and 3) we collected thought protocols (coded for defensive statements and self-presentation concerns) to uncover the processes underlying the DLE. Findings support the DLE: When the SI congruent ad generated negative appraisals and had a GA, participants' ad attitudes were lower than when the ad had an IA (IA = 4.01, GA = 2.87; $F(1,261) = 9.20, p < .01$). Thought protocols also support the processes we propose for these effects: self-presentation concerns drive the DLE when there is a GA and defensive responses drive the ad liking effect in the IA condition.

Most notably, we identify a circumstance when SI congruent ads can backfire, leading SI holders to dissociate from the ad: When an ad is viewed by the masses, as is often the case in real-world settings, SI holders may not be comfortable having their 'dirty laundry' aired. This illustrates the need for advertisers to think beyond simply resonating with consumers' identities to consider the ramifications of how their ad is nested within a broader social context.

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One for All, All for One: How Collective-Level Processes Shape Individual Behavior

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Consumer research frequently explains individuals' consumption-related reactions to threats to their social identities (e.g., Berger & Heath, 2008; White & Dahl, 2006) as a result of individual-level intentions related to their own well-being. White and Argo (2009), for example, suggest that individuals avoid products associated with a threatened aspect of their social identity because they are trying to protect their "individual self-worth" (p. 313). While informative, this focus on individual-level processes/intentions tends to neglect what Bagozzi (2000) identifies as the more collective-level processes of consumers' actions driven by "shared intentions" or "we-intentions". Unlike the focus on one's personal well-being associated with individual-level processes, collective-level processes are characterized by concerns for one's social group and a desire to protect the group and *all* its members from negative consequences (Ellemers, Spears, & Doosje, 2002). In our research, we demonstrate the importance of collective level processes in understanding

consumption-related reactions to social identity threats by demonstrating the role of collective-level processes in driving these reactions.

In the first of three studies, university students were led to believe that members of a local sport club, who were presented as either similar or dissimilar to the students, would be allowed to use (i.e., “hijack”) the new university gym (pretested to be a relevant, exclusive group symbol). We measured identification as a student of this university (Jetten, Summerville, Hornsey, & Mewse, 2005), the collective-level distinctiveness threat (Warner, Hornsey, & Jetten, 2007), the individual-level mis-categorization threat, and changes in the strength of the symbolism of the gym. Regression analyses revealed that subjects who more strongly identified with the university were more likely to abandon the symbolism of the gym when it was hijacked by a similar vs. dissimilar group ($\beta = 3.018, p < .05$), whereas weakly identifying students were more likely to abandon the symbolism of the gym when it was hijacked by a dissimilar vs. a similar group ($\beta = 1.997, p < .05$). This shift occurred mainly because respondents in the similar hijacking group condition were more likely to abandon the symbolism of the gym the stronger they identified with the university ($\beta = -0.211, p < .05$). To demonstrate that a collective-level rather than individual-level process drove this reaction, we conducted a multiple mediation analysis using the perceived collective-level distinctiveness threat and perceived individual-level mis-categorization threat as mediators. Only the collective-level distinctiveness threat mediated the relationship between group identification and symbol abandonment ($\beta = -0.07, 95\%$ confidence interval: $-0.17 \leq x \leq -0.01$).

In the second study, we explore some boundary conditions under which the effects of collective-level processes are likely to drive reactions to social-identity threats. We argue that one condition under which collective-level processes should become stronger is when an individual has a stronger perception that the hijacking group is a coherent and clearly defined group (i.e., the hijacking group’s entitativity is high; (Abelson, Dasgupta, Park, & Banaji, 1998)). Consequently, we expected the entitativity of a perceived similar hijacking group to moderate the effect of the strength of identification on the distinctiveness threat and, in turn, the likelihood to abandon the symbolism. To test this expectation, we adapted the design of the previous study by focusing only on the perceived similar hijacking group whose entitativity we manipulated. As expected, a moderated mediation analysis suggested a conditional indirect effect of group identification on symbol abandonment through the perceived distinctiveness threat ($\beta = -0.07, p = .05$) for participants in the high entitativity condition.

In the third study, we sought to rule out an alternative explanation that concerns about the symbol’s distinctiveness, as opposed to concerns about the group’s distinctiveness, are driving the results. In this study, we designed a fictitious brand of laptop bag to serve as the group symbol. Later in the experiment, subjects read a scenario that told them a perceived similar group was either hijacking the identical branded laptop bag or a different product with the same brand name. A moderated mediation analysis suggested that the effect of group identification on symbol abandonment through a perceived distinctiveness threat occurred only when the exact symbol (the identical branded laptop bag) was hijacked ($\beta = -0.05, p < .05$).

Together, these studies demonstrate the important role that collective-level processes play in consumption-related reactions to social-identity threats. By demonstrating how a collective-level process (i.e., a perceived distinctiveness threat) plays a role in the likelihood of symbol abandonment above and beyond individual-level processes (i.e., a perceived mis-categorization threat), we highlight the fact that some individuals’ reactions to the actions of marketers and other consumers are not only driven by concerns about their own personal well-being but also by desires to protect their social group. These collective-level processes also help in our understanding of why symbol abandonment can be more pronounced for people who more strongly identify with a threatened social identity; a finding that contrasts with previous work focusing solely on the role of individual-level processes. Further, we suggest and test two boundary

conditions that have implications for marketing managers who are considering widening their customer base of product that serves as a strong symbol for existing customers.

Self-Brand Overlap, but not Dissociation?

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Brands act as symbols in the lives of consumers, conveying social information about the consumer to onlookers (e.g., Levy, 1959). More deeply, people become connected to brands, feeling that these brands represent who they are as a person (Escalas, 2004; Escalas & Bettman, 2003, 2005). Research in this area tends to focus on brands consumers feel positively toward, however, the noted anthropologist Richard Wilk has argued that what consumers choose not to consume is often more socially and personally significant to them than what they choose to consume (Wilk, 1997). Experimental evidence finds that consumers may avoid brands that represent something with which they do not want to be associated (Escalas & Bettman, 2005; White & Dahl, 2007).

We extend this line of research to explore whether disliked brands affect consumers' identities at a cognitive level. To do so, we draw from the "including others in the self" (IOS) paradigm introduced by Aron, Aron, Tudor, and Nelson (1991), who find that people's cognitive representations of their own identities overlap with their cognitive representations of close relationship partners. Because

brands may be seen as friends to consumers, or even active relationship partners (Aaker, 1996; Fournier, 1998), we use this paradigm to examine cognitive overlap and dissociation with consumer brands.

Cognitive overlap is evidenced by greater relative accessibility in memory of personality characteristics one shares with their relationship partner, compared to characteristics that differentiate the self from the close other. The accessibility of characteristics is measured in a response time (RT) task where participants indicate whether each characteristic is *self*-descriptive ("me"/"not me"). The faster they respond on a given characteristic, the more accessible that characteristic in memory. When cognitive overlap between the self and other exists, responses to shared characteristics are fast while responses to non-shared characteristics are relatively slow, due to the need to cognitively disentangle self from other when characteristics are not shared.

In theory, one should expect the opposite pattern for actively disliked others, although this finding has not been reported in the literature. Following this logic, we explore whether cognitive representations of disliked brands are dissociated from consumers' cognitive representations of themselves. Specifically, we examine whether characteristics on which the self and a disliked brand are similar are relatively less accessible than dissimilar characteristics.

We demonstrate that loved brands are "included in the self" by replicating the finding of self-other overlap where the "other" is a loved brand. In other words, loved brands are included in the self similarly to interpersonal relationship partners. These results provide a theoretical foundation for extending this paradigm to study cognitive self-brand dissociation, in the case of disliked brands.

We adapted the IOS paradigm to the brand context in two experiments. We manipulated whether participants thought of a loved or a disliked brand, and in both the loved and disliked brand conditions participants rated how well personality characteristics described themselves as well as the brand, on 7-point scales. This was followed by a RT task where they indicated if the characteristics were "me" or "not me". Using a multilevel regression model to determine how participants' perceived similarity between self and brand

(based on the 7-point scale responses) impacted the accessibility of those characteristics (based on the RTs), we found that the more similar one was to a loved brand on a characteristic, the more accessible that characteristic in memory ($p < .05$ in both studies). However, there was no significant effect of the similarity between self and a disliked brand on characteristic accessibility, thus we found no support for cognitive self-brand dissociation. This is consistent with the documented lack of a self-other dissociation effect in the context of outgroups (e.g., Smith & Henry, 1996).

This calls into question the identity relevance of what one is not, from a cognitive perspective. Despite increasing evidence that dissociation is a powerful factor in consumer behaviors (e.g., Berger & Rand, 2008; Escalas & Bettman, 2005; White & Argo, 2009; White & Dahl, 2007), it seems that it does not have as great of an impact on the self at a cognitive level as does positively valued consumption. Dissociative consumer behaviors may arise from a complex set of motivations that are not fundamental to self-definition. For example, one might actively avoid a brand because of a performance failure, negative word of mouth, or other experiences unrelated to identity. Apart from associations with negative consumption outcomes, brands may be actively avoided as a way of presenting a desired self to others, which does not necessarily imply a deeply rooted impact on one's identity at a personal level. Most fundamentally, we note that published research using the IOS paradigm in psychology has reported null effects for self-outgroup dissociation. Perhaps people really do tend to define themselves by who and what they love rather than what they hate.

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1.6 Individual Papers: New Methods for Classifying Consumers and Consumption

Room: Maple Room A

Chair: Anne-Flore Maman, ESSEC, France

Fool Me Once, Shame on Me: Development of the Sucker Rumination Scale

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The experience of being persuaded to engage in a bad financial deal is, presumably, unpleasant for everyone. The current research takes an individual difference approach to explore the possibility that some people experience stronger reactions to being tricked out of their money than others. We developed the Sucker Rumination Scale (SRS), which captures individual differences in reactions to being tricked out of money.

The construct of sucker rumination is defined here as the tendency to experience aversive self-focused cognitions after being tricked in an economic transaction. Our central argument is that consumers differ in the degree to which they blame themselves for getting duped, and that these differences have implications for future consumer behavior. Sucker rumination can help consumers if the self-

blame leads them to consider ways to avoid being fooled again in the future. If taken to an extreme level, however, sucker rumination can lead some consumers to become so distrustful of marketing that they forego legitimate opportunities to fulfill their needs.

The generation of the initial item pool was inspired by Vohs, Baumeister, and Chen's (2007) review of the somewhat limited body of research on "feeling duped." Six professors and 15 graduate students with a conceptual understanding of the Vohs (2007) paper proposed items for the scale. The authors of the current paper were among those nominating items. To sharpen our conceptualization of sucker rumination, the item pool was purified via an iterative process. Conceptual and psychometric analyses were performed at each stage of this process (Clark & Watson, 1995), eventually resulting in a reliable and unidimensional set of 6 items (Cronbach's $\alpha=.88$).

Supportive evidence for the convergent validity of the SRS was found in two samples ($n=239$ and $n=275$), as it correlated with related measures in theoretically predicted ways. For example, the SRS was positively correlated with the rumination subscale of the Private Self-Consciousness Scale ($r=.51$ in Sample 1, $r=.60$ in Sample 2, $ps<.01$; Trapnell & Campbell, 1999), the regret subscale of the Maximizing-Satisficing Scale ($r=.41$ in Sample 2, $p<.01$; Schwartz et al., 2002), and neuroticism ($r=.25$ in Sample 1, $r=.30$ in Sample 2, $ps<.01$; John, Donahue, & Kentle, 1991). The SRS was positively correlated with two subscales of the Consumer Self-Confidence Scale, namely personal outcomes ($r=.22$ in Sample 1, $r=.28$ in Sample 2, $ps<.01$) and marketplace interfaces ($r=.24$ in Sample 1, $r=.15$ in Sample 2, $ps<.01$; Bearden, Hardesty, & Rose, 2001). Furthermore, evidence of discriminant validity was found when the SRS did not significantly correlate with four subscales of the Consumer Self-Confidence scale (persuasion knowledge, information acquisition, consideration set, and social outcomes) and three factors of the Big 5 Inventory (extraversion, conscientiousness, and openness to experience).

It is important to demonstrate that the SRS is not redundant with existing rumination scales. Whereas other measures of rumination conceptualize it as a global personality trait (e.g., Trapnell & Campbell, 1999), each of the items in the Sucker Rumination Scale pertains specifically to consumer contexts. To empirically test this conceptual distinction in both samples, the six items of the Sucker Rumination Scale and the 12 items of the Rumination Scale (Trapnell & Campbell, 1999) were subjected to two separate principal axis factor analyses (Clark & Watson, 1995). Each of the resulting factor matrices was rotated using the direct oblimin method in order to permit correlation among the factors. Factor analytic results in both samples suggested that the SRS was not conceptually redundant with Trapnell and Campbell's global measure of trait rumination. In both samples, the 12 items from the Rumination Scale (Trapnell & Campbell, 1999) had primary loadings on the first factor and the six items from the SRS had primary loadings on the second factor. None of the secondary factor loadings for any of these 18 items exceeded .15.

We sought to establish test-retest reliability. We administered the SRS at an interval of one month, and the correlation was $r=.70$, $p<.001$, indicating a high degree of temporal stability.

Next, we conducted an autobiographical study that was designed to test whether individual differences in the SRS were related to differences in consumers' experiences. Participants wrote about a bad financial experience in which they were tricked out of money. The autobiographical narratives were subsequently read and evaluated by a team of trained research assistants (naïve to hypotheses). As predicted, consumer rumination scores were predictive of how participants described their past consumer behavior. Participants with high SRS scores wrote essays in which they made highly self-critical statements, as determined by the consensus of independent raters ($r=.24$, $p=.01$). For instance, a typical participant high in SRS wrote, "I was extremely mad and disappointed in myself." Next, we assessed the relationship between sucker rumination scores and the spontaneous mentioning of having learned something from a negative consumer experience. Results demonstrated that people with higher sucker rumination scores were significantly more likely to mention having learned something ($r=.22$, $p=.02$). For instance, a typical high-SRS participant wrote, "Now, I don't open emails from people I don't know."

The results of the current research supported our hypothesis that some people are consistently more prone to experience aversive self-focused cognitions after being the victim of a scam. Evidence for the convergent validity of the SRS was found in the first two studies, as it correlated with related measures in expected ways. The supportive evidence for the predictive validity of the SRS that was found in Study 4 suggested that individual differences in sucker rumination have implications for future consumer behavior. Specifically, results suggested that participants with higher levels of sucker rumination expressed more negative statements about themselves after being duped. Furthermore, higher levels of sucker rumination were related to a greater likelihood that participants would mention having learned something from the negative financial experience. The present studies highlight the importance of examining the role that negative self-focused cognitions play in reactions to deception in the marketplace.

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Individuals' Desire for Prestige: Development of the Consumers' Need for Prestige Measurement Scale

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The need for prestige is deeply anchored in everyday social life. Given the centrality of consumer products in every moment of the day, they present a valuable tool in the social communication system. As individuals may fulfill their need for prestige in a variety of ways, they are likely to vary in the tendency to gain prestige through consumer goods and behavior.

This study is an initial effort to develop and validate a scale that measures individual differences in the need for prestige. It draws on past research on symbolic consumer behavior (e.g. Grubb and Grathwohl 1967; Solomon 1983; Richins 1994) and status consumption (e.g. Eastman, Goldsmith, and Flynn 1999; Clark, Zboja, and Goldsmith 2007) and is in line with consumer research on the important influence of intrapersonal and interpersonal needs (Burns 1993), e.g. need for touch (NFT) (Peck and Childers 2003), and need for uniqueness (NFU) (e.g. Tian, Bearden, and Hunter 2001; Lynn and Harris 1997). Even though the prestige appeal is widely used in marketing, to date no explicitly defined research approach has been developed.

Drawing on the misleading, interchangeably use of the terms “prestige”, “status”, and “luxury” in literature, it has to be emphasized that prestige refers to the degree of esteem accorded to individuals, groups, or entities (Henrich and Gil-White 2001). This involves the product of the internalization of objective reality, i.e. a morally positive, outstanding human achievement, and symbolic reality, i.e. the interpretation of socially shared symbols, in social interactions (Czellar 2002; Dittmar 1992). In contrast, “status” relates to a position in social hierarchy and “luxury” is rather associated with the self-indulging refined lifestyle of the affluent which includes some kind of negative connotation (Dubois and Czellar 2002; Colarelli and Dettmann 2003; Vigneron and Johnson 1999).

We define Consumers' Need for Prestige (CNFP) as the tendency to engage in conspicuous consumer behavior that confers or symbolizes prestige both to the individual and to the surrounding reference group, in order to gain the extrinsic, social reward prestige. It is assumed that consumers are likely to vary in the tendency to gain prestige through consumer goods, referring to different kind of product categories, brands, services, versions, or styles. As goods are used as symbolic communication devices, it is not the functional utility people desire, but rather the symbolic benefits these goods provide, i.e. the esteem or admiration of others. It is supposed that the CNFP explains stable patterns of individual behavior. The CNFP construct subsumes the following three factors:

The Impression-Oriented Factor. The concern for desired prestigious public appearances leads people to expressive self-presentation. By regulating and controlling information about oneself, individuals are able to create/project a prestigious self-identity towards others. They want to be unique, but unique within the societal norms. This implies them being acutely aware of the level of prestige associated with a given product or brand within their social nexus. As many prestigious goods are also consumed in private, prestige-seeking behavior is assumed to be an enduring, cross-situationally consistent personality trait. This is contrary to the self-monitoring theory which highlights the variability of self-presentational tactics depending on situational cues (Gangestad and Snyder 2000).

The Social Approval Factor. An individual will only engage in expressive self-presentational tactics, if his/her conduct will lead to the desired end-state prestige. This implies the belief of others using person schemata which are organized around possessions and possession-related traits, e.g. style, expertise (Hunt, Kernan, and Mitchell 1996; Richins and Dawson 1992). Therefore, the prestige-driven behavior has to be significant (i.e. visible, variable and personalizable) and to involve a socially shared meaning of prestige (Holman 1981; Dittmar 1992). Individuals with a common history of enculturation should be able to predict the behavior of others in that culture (Solomon 1983).

The Impressible Factor. Prestige-seekers tend to judge a person's worth, i.e. form impressions and make judgments, on the basis of external, material appearances to the extent that inner, nonmaterial qualities are likely to be trivialized (Hunt, Kernan, and Mitchell 1996).

Based on the results of a continued word association method to the stimulus "prestige" and in line with the conceptual definition of the CNFP, a pool of 29 items was generated. After assessing content validity, the remained 21-item scale was queried on a seven-point Likert-scale via an online survey (N = 493).

The procedure of assessing scale reliability and validity is conducted in accordance with previous applications for scale development (cp. NFU and NFT). Varimax-rotated exploratory factor analysis resulted in 12 items loading on the *Impression-Oriented Factor*, six items on the *Social Approval Factor*, and three items on the *Impressible Factor*. The scale was evaluated through a number of reliability and validity criteria of first and second generation (e.g. Cronbachs α , ITTC, explained variance, factor reliability, indicator reliability, RMSEA, NFI, GFI). Evidence of convergent validity and discriminant validity between the three factors as well as with conceptually distinct scales (NFU scale (Tian, Bearden, and Hunter 2001), Materialism Scale (Richins and Dawson 1992)) are provided. The assessment of nomological validity included the framework of psychological needs and the model of the formation of prestige judgments and revealed satisfactory results (Burns 1993; Czellar 2002).

The primary goal of this research was to develop and validate a measurement scale of individual differences in the aspiration of prestige through consumption. The results indicate that CNFP is composed of three dimensions: the *Impression-Oriented Factor*, the *Social Approval Factor*, and the *Impressible Factor*. Consumers with a high need for prestige appeared to have a strong concern for their appearance and image in line with a strong emphasis on person schemata based on commercial goods. The emerged 21-item CNFP-scale was found to be reliable and to meet the criterion of content, convergent, discriminant, and nomological validity. This paper constitutes an exploratory investigation of the latent construct Consumers' Need for Prestige. The CNFP-scale should be used as an intervening variable in different prestige-related consumer research contexts. Replications and further refinements would additionally support our initial findings.

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The Effect of Language on Response Distributions in Likert Data

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Survey data are an important source of information for cross-cultural marketing research. Unfortunately, responses of participants from different countries may not be equivalent (i.e., the same response on a rating scale may have different meanings for respondents from different countries). Such non-equivalence has traditionally been related to respondents' nationality, whereas the impact of language has been neglected.

In the present paper, we report on a program of research investigating the effects of language on responses to Likert items. We show that response distributions are language-specific and that language can be a more important source of measurement non-equivalence than nationality. In addition, we investigate two potential mechanisms underlying these effects and we provide support for one of these mechanisms. The research consists of a multi-country European survey ($N = 5,952$); an experimental survey among bilingual respondents in one country ($N = 695$); a single-country, single-language student experiment ($N_{pre-test} = 83$ and $N_{Main} = 100$); and an experimental survey in two languages in Europe and North-America ($N = 982$). Across all studies, multi-item responses to questionnaire statements that do not share common content are used to index response distributions, which ensures that differences observed across heterogeneous items cannot be attributed to the content of specific items and instead are more likely due to a preference for selecting specific response categories

Specifically, in Study 1 we take advantage of the fact that in several European countries there are multiple official languages within the same nationality, and we conduct a "natural" experiment in which the effects of language and nationality can be disentangled (based on four languages spoken in six different countries). Results from this study indicate that response distributions are more homogeneous for regions sharing the same language than for regions sharing the same nationality.

In Study 2 we report the results of an experiment with bilingual respondents (fluent in both French and Dutch) in which we investigate the influence of mother tongue, language of the questionnaire, and two types of labels assigned to the scale positions in each language on response behavior. The results indicate that response distributions vary as a function of the category labels used, even for questionnaires in the same language and regardless of respondents' mother tongue.

In Study 3 we test two alternative explanations for this effect using data collected from a Dutch-speaking student sample. According to the intensity hypothesis, more intense endpoints (i.e., endpoints that are stronger in meaning) should be endorsed *less* frequently.

According to the fluency hypothesis, response categories that are more commonly used in day-to-day language should be endorsed more frequently. Based on a pre-study we selected two labels with intensity and fluency levels that should lead to contradictory effects under the two hypotheses (i.e., if intensity and fluency are both high, endorsement rates should be relatively low if the intensity hypothesis is true, but relatively high if the fluency hypothesis is true). The findings show that the fluency of the endpoint labels, rather than their intensity, has a systematic effect on response distributions (keeping language constant).

In the fourth and final study we replicate and extend this result in a cross-continental survey with European and North-American respondents speaking either English or French, using several different labels for the extreme response categories. The findings confirm

that response distributions vary as a function of label fluency, not label intensity, irrespective of language and nationality. Specifically, response categories tend to be endorsed more readily when their associated labels have higher fluency. This leads to differences in the likelihood with which certain scale positions are endorsed that are not due to item content, both within language (e.g., “completely agree” is more fluent than “extremely agree” and therefore more frequently endorsed) and across languages (e.g., certain French equivalents of “strongly agree” are endorsed more frequently than others, depending on their fluency in French).

Overall, the findings demonstrate that category labels that differ in fluency across different languages are a potential threat to measurement equivalence in cross-national consumer research and that greater attention has to be paid to ensuring that the scale labels used in different languages do not induce content-irrelevant response biases.

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Conceptions of Consumption: Implications for Data Collection and Theory-Building

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“The SCP conference facilitates the generation of cutting-edge consumer research rooted in social and cognitive psychology, sociology, anthropology, economics, decision theory and other areas” (SCP 2011 call for papers). Although SCP celebrates multidisciplinary thought, information-processing and decision-making conceptions of consumption dominate community conversation. The aim of this essay is to extend the conversation to a broader variety of conceptions. Inspired by integrative frameworks in the fields of management (Morgan 1986), personality (Hall, Lindzey, and Campbell 1957/1998), and society (Giddens 1979), this essay heeds the call for integrative frameworks in consumer research (Deighton et al. 2010). Charting ten major conceptions of consumption along three dimensions of analysis, this essay reduces the barriers to multidisciplinary theory-building in consumer research (see also Hudson and Ozanne 1988).

“There are many ways to define consuming depending on what aspect of the phenomenon one wishes to highlight” (Csikszentmihalyi 2000). Presidential addresses to the *Association of Consumer Research* (ACR) (from Pratt Jr. 1974 to Janiszewski 2010) and editorial statements in the *Journal of Consumer Research* (JCR) (from Frank 1974 to Deighton 2005), regularly assert that what anchors the discipline of consumer research is not a theoretical perspective but a substantive domain called consumption. Thus, unsurprisingly, the field houses multiple conceptions of consumption such as consumption as *meaning-making*, *emotional experience* (Holbrook and Hirschman 1982), *self extension* (Belk 1988), *et cetera*. A *conception* is an image, model, or way of perceiving (Morgan 1980). Its function is to tame the complexity of reality and to facilitate a parsimonious explanation (Weick 1989).

Having multiple conceptions of consumption is both a challenge and an opportunity in consumer research (see also MacInnis and Folkes 2010). It is a challenge because conceptions tend to compete for dominance in scientific communities (Kuhn 1962/1970); it is an opportunity because conceptions make multiple layers of understanding possible (Feyerabend 1975; Lewis and Grimes 1999; Schultz and Hatch 1996). To diminish the problem and advance the opportunity, this essay systematically reviews a selection of conceptions of consumption using the principle of *generalized symmetry* (Callon 1986). This principle dictates that I discuss conceptions in symmetric terms (i.e., in simple transdisciplinary language, as free of domain-specific jargon as possible). To this end, I use three basic theoretical dimensions (Whetten 1989) to compare and contrast conceptions: (1) In this conceptual view, *what* entities

is the phenomenon (i.e., consumption) composed of? (2) In this view, *how* do the entities interact? Or, what are the activities that bring them together? (3) In this view, *why* does the phenomenon occur?

Scope. The discipline of consumer research is presently dominated by three fields (MacInnis and Folkes 2010). Founded upon eponymous conceptions of consumption, the fields of consumer information-processing (CIP) and consumer decision-making (CDM) focus on extending and testing theory from their core disciplines (Newell and Broder 2008). By contrast, the field of consumer culture theory (CCT) focuses on generating and revising theory via empirical engagements with consumers in ordinary and extraordinary contexts. Drawing on anthropology, cultural studies, psychology, and sociology, CCT manufactures a steady stream of new conceptions of consumption, often in dissertation-based articles. Examples (in chronological order) include consumption as: *habituated practice* (Holt 1995); *dyadic relationship* (Fournier 1998); *community participation* (Muniz Jr. and O'Guinn 2001); *social structuration* (Crockett and Wallendorf 2004); *network dynamics* (Epp and Price 2010); *multiphrenic dialogics* (Bahl and Milne 2010); etc.. These discrete contributions have only recently begun to be integrated into a system of thought (Arnould and Thompson 2005). This essay continues that integrative process. In sum, while conceptions of consumption sit at the foundations of CIP and CDM, conceptions of consumption are the frontiers of CCT. It makes sense to focus this essay on CCT precisely because conceptions of consumption are numerous, contested, and evolving in this field.

Contributions. This essay offers three contributions to consumer research. First, the essay offers a systematic inventory of conceptions of consumption and a discussion of each conception in symmetric terms. Due to space constraints, a complete discussion of each conception is not feasible in this extended abstract. However, it is possible to discuss one conception in detail. I have elaborated on consumption as *multiphrenic dialogics* not because it is a superior conception but simply because it is the most recent one introduced in JCR (Bahl and Milne 2010).

Second, the conceptual toolkit elaborated in this essay has implications for qualitative data collection in consumer research. The majority of qualitative consumer research is conducted via interviews. Even the many articles billed as ethnography in JCR rely heavily on interviews (e.g., Coupland 2005; Kozinets 2002; Schouten and McAlexander 1995). Furthermore, interviews in JCR are often described as 'ethnographic,' 'depth,' 'long,' 'inductive,' 'unstructured,' or 'semi-structured.' What all of these descriptors generally indicate is that interviewers bracket out their personal beliefs, elicit life stories first to contextualize subsequent details, and allow informants to guide the conversation. This dominant interviewing style is not necessarily problematic, but it is important for consumer researchers to understand that this interviewing style embodies just one style of many (Alvesson 2003). While interviews led by informants can yield unanticipated and diverse insights, interviews led by probing research questions can yield pointed and deep insights. Conceptions of consumption may be used to ignite the imagination applied to interview data collection or to augment conventional questions.

Third, the conceptual toolkit elaborated in this essay has implications for theory-building in consumer research. The comparative analysis of conceptions of consumption pinpoints the unique explanatory value of each conception. For example, conceiving of consumption as *multiphrenic dialogics* enables intricate yet structured accounts of intra-person dynamics in consumptive decision-making. The conception is especially well-suited for explicating the phenomenon of consumer ambivalence and for explaining irregularities in attitude and behavior.

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1.7 Individual Papers: Consumer Memory and Judgment

Room: Maple Room B

Chair: Irene Scopelliti, Bocconi University, Italy

The Liberating Influence of Dashed Hopes upon the Status Quo Bias

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Although the status quo bias has been demonstrated to be remarkably robust (Kahneman, Knetsch, and Thaler 1991), surprisingly limited research exists regarding its mitigation (Chernov 2004). This is particularly surprising given the strong tendency for the status quo bias to result in sub-optimal decisions that decrease consumer welfare (Brown and Krishna 2004; Johnson and Goldstein 2003). Our research explores the relationship between the experience of dashed hopes and the status quo bias.

In consumer decision making, the option to do nothing and maintain the status quo is nearly ubiquitous. Prior research has indicated that individuals disproportionately choose to stay with their current position, often even when that position is sub-optimal (Samuelson and Zeckhauser 1988). However, extremely attractive options or outcomes may lure individuals away from the status quo, especially when that extremely attractive option seems to be attainable. For example, prior to choice, consideration of an attractive new job, romantic prospect, or discounted high-end product could entice individuals to reject the status quo.

What occurs in such situations when the highly attractive, “hoped for” option suddenly becomes unavailable (e.g., the funding for the new job is eliminated), a phenomenon we refer to as a dashed hope? Do consumers tend to cling even more tightly to the status quo, or do they seek out new alternatives because the status quo suddenly seems relatively less attractive? On the one hand, the resulting experience of dashed hopes may result in increased anxiety, which in turn may increase the need to re-establish situational control (Raghunathan, Pham, and Corfman 2006). Such a situation would result in individuals continuing to adhere, perhaps even more strongly, to the status quo.

In contrast, introduction of a hoped for option may focus individuals’ attention upon the negative attributes of the status quo, effectively shifting the consumer’s reference point (Kahneman and Tversky 1979) away from the status quo and closer to the hoped for option. Previous research has argued that the status quo bias is the result of 1) the status quo as reference point and 2) inferred preference based upon past behavior (Samuelson and Zeckhauser 1988). In the case of dashed hopes, an assessment of past preference includes rejection of the status quo in favor of the superior, hoped for alternative. This would support a reference point shift away from the status quo. If the reference point shift places individuals within a loss frame, an alternative to the status quo option is more likely to be sought out and considered, thus mitigating the status quo bias.

Study 1 was conducted to examine whether experiencing a dashed hope (i.e. the removal of an extremely attractive, hoped for option from a choice set) would reduce adherence to the status quo.

Method. Participants consisted of 118 undergraduate students. A single factor, *dashed hopes*, was manipulated within subjects. Subjects read a hypothetical scenario in which they were owners of a modest, but reliable, older car. Participants indicated the likelihood that they would pursue acquiring a new car in the near future. The hoped for option was next introduced as a sports coupe

offered to the participant by a family member for an extremely attractive price. Participants indicated their affective reaction to learning about the hoped for option. Hope for all participants was then dashed as the hoped-for car became unavailable due to an honest mistake by the family member. Subjects again indicated emotional reactions and the likelihood that they would pursue acquiring a new car in the near future.

Results and Discussion. Individuals indicated significantly higher intentions to pursue a new car in the future following the experience of dashed hopes ($M_{\text{PursueBefore}} = 3.07$; $M_{\text{PursueAfter}} = 3.27$; $t_{117} = 2.19$; $p < .05$). As predicted, individuals experiencing a dashed hope were more likely to abandon the status quo. Although study 1 provides evidence that the status quo bias can be mitigated by introducing an extremely attractive option to a set and then unexpectedly removing it, what it cannot answer is whether this is caused by a shift in the valence of thoughts directed toward the hoped for option versus the status quo option.

Study 2 was conducted to determine whether a shift in the consumer's reference point away from the status quo is responsible for the observed reduction in status quo bias.

Method. Participants consisted of 224 undergraduate students. The study design was identical to that of study 1 with two exceptions. First, participants completed two scales: desirability of control (Burger and Cooper 1979) and the trait hope scale (Snyder et al. 1991). Second, participants responded to a series of statements and indicated their focus on positive and negative aspects of the hoped for and status quo items (e.g. In thinking about this situation, "I would be focused on the positives of the car I currently have") on a 1 (strongly disagree) to 9 (strongly agree) scale.

Results and Discussion. Consistent with study 1, participants indicated significantly higher intentions to pursue a new car in the future following the experience of dashed hopes ($M_{\text{PursueBefore}} = 4.06$; $M_{\text{PursueAfter}} = 4.39$; $t_{223} = 3.15$; $p < .01$). To probe the mechanism responsible, we also looked at participants' focus of thoughts. Participants reported that they would focus more of their thoughts upon the positive attributes of their hoped-for option ($M_{\text{PosHopedFor}} = 7.96$; $M_{\text{PosStatusQuo}} = 5.54$; $t_{223} = 14.10$; $p < .01$) and more upon the negative aspects of the status quo option ($M_{\text{NegHopedFor}} = 4.73$; $M_{\text{NegStatusQuo}} = 6.94$; $t_{223} = -12.47$; $p < .01$). The tendency to abandon the status quo increased as the perceived differences between the two options increased ($\beta_{\text{NegDifference}} = .14$; $t_{1,220} = 1.85$; $p = .067$).

The results of study 2 are consistent with the argument that dashed hopes reduces the status quo bias by shifting the reference point away from the status quo. As predicted, the experience of dashed hopes increased abandonment of the status quo. Furthermore, abandonment was a function of consumer focus upon negative attributes, suggesting a mediating relationship. A planned third study will demonstrate this mediating effect of attribute focus upon status quo adherence and probe more deeply into aspects of dashed hopes.

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*Attribute Change and Consumer Preferences: The Role of Dual-Systems of Processing In Analyzing Products'**Attribute Modifications*

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Imagine that the local grocery store sells Kellogg's Special-K in two package sizes: 10 oz. for \$2.50 and 15 oz. for \$3.75. John buys Special-K, and since the unit price for each pack is the same, he is indifferent between either of the packs. He sometimes buys a bigger pack and sometimes a smaller pack depending upon storage space at home, frequency of shopping, and availability of money. In his most recent shopping trip he noticed that Kellogg's is offering bonus packs with the purchase of Special-K—a 10 oz. pack plus 4 oz. for \$2.50, and a 15 oz. pack plus 6 oz. for \$3.75. Which package would John prefer now? Based on his past preference, one could predict intuitively that he would be indifferent between both packages as the unit price is still the same across both of them; his decision to buy one pack over the other would again be based on similar extraneous factors. Contrary to this prediction, we propose that he would no longer be indifferent and would prefer the bigger package over the small package.

When a group of participants were presented with the same situation, initially they chose the smaller package A (59.5%) slightly more than the bigger package B (40.5%). However, after the change, participants' preference significantly shifted towards the bigger package (package A: 35.7%, package B: 64.3%, $\chi^2(1) = 4.773, p < .03$). We call this phenomenon the detection-of-change effect, where people, who were indifferent before the change, later prefer the option with a higher (lower) magnitude of desirable (undesirable) change.

We posit that the detection of change effect emerges because people, faced with an attribute-change situation, first use the deliberative system 2 to judge the original and changed options. At this point, the intuitive system 1 picks up the initial output of the deliberative system that one option has higher extra quantity than the other and applies the bigger-is-better heuristic (bigger-is-worse for an undesirable change) to form a preference towards the option with the highest (lowest) absolute magnitude of change.

However the results of the preliminary study could also be explained through two alternate accounts : a) participants evaluated the two bonus packs as two additional free items and chose the option with more of the free product, since people assign higher value to free products (Shampanier, Mazar, and Ariely 2007). b) Following the general law of demand which predicts an inverse relationship between quantity demanded and the price of a product (Marshall 1895), this account argues that increasing the weight of cereal boxes, while keeping the price constant, reduced the unit price of the cereal and, therefore, increased its demanded quantity.

We tested the efficacy of the proposed and alternate accounts across three studies. In study 1, we investigated both desirable and undesirable change and found that people apply the bigger-is-better (-worse) heuristic for desirable (undesirable) changes. This helped us rule out the first alternate account since this account did not predict the result of a negative attribute change.

The alternate account based on the general law of demand predicts that focusing on unit price should increase the effect since it helps people to notice the price reduction. However, according to our proposed account, focusing on the difference between the original and changed options should increase the effect since the detection-of-change effect emerges because of looking for the differences between the original and changed options. Contrary to the prediction of the general law of demand, study 2 showed that focusing on unit price eliminated the effect since the equal unit price across two options prevents system 1 from applying the bigger-is-better (-worse) heuristic. On the other hand, focusing on the difference between the original and changed options increased the effect since the

difference between the original and changed options helps system 1 to apply the bigger-is-better (-worse) heuristic and prefer the option with the highest (lowest) absolute change.

Study 3 provided further support for the role of intuitive and deliberative systems in the detection-of-change effect. We utilized a process dissociation task (Ferreira et al. 2006; Jacoby 1991) to measure System 1 and System 2's contribution to the detection-of-change effect and to explore how goals affect both systems' contributions. In line with past research, we found a higher contribution of System 2 to the detection-of-change effect when participants were asked to deal with the decision in a rational way compared to an intuitive way. However, having a rational or an intuitive goal did not change the contribution of System 1 to the detection-of-change effect.

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When Ads Aren't the Only Focus: Effects of Multitasking on Memory and Judgment

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Research on multitasking performance has often assumed that people have limited processing capacity and that performing two tasks simultaneously will decrease their performance on both (Hembrooke & Gay 2003). However, people often do not devote their full attention to a task even when they perform it alone. When a task is mundane, for example, they frequently let their minds wander (Smallwood & Schooler 2006), and so memory about details of the primary task is decreased (Seibert & Ellis 1991). Under these circumstances, performing a secondary task that prevents mind-wandering can actually increase attention to the primary task (Andrade 2009) and consequently can *increase* performance on, and memory for, this task.

This potentially positive effect of a secondary task may not occur when the primary task is intrinsically interesting. High involvement leads to greater attention and comprehension (Celsi & Olson 1988). In this case, when there is primary task involvement, mind-wandering is unlikely and performing a secondary task could decrease attention to the task-relevant material and, as a result, could decrease task performance.

Participants ($n=77$; 2x2, single or dual task x involving or uninvolved target ad) were told to listen to a series of five monotonous radio commercials as if they were listening to the radio at home and to form an impression of the ads. In *dual-task* conditions, participants performed a "doodling task" while listening to the commercials. Participants were asked to copy the target shapes into the blank spaces besides them on the paper. In *control* conditions, they only listened to the ads. The first four ads were the same for all groups. However, the fifth, target ad differed in terms of its interest, being conveyed in a style that was relatively dynamic in one case but flat, monotone in the other. Participants then performed a recognition memory task pertaining to the target ad.

The manipulations were successful. Participants who listened to the low-interest ad reported being less bored in dual-task than in control conditions, whereas participants who listened to the high-interest ad did not differ. Thus, the secondary task kept participants from being bored when the ad material was particularly uninteresting.

This initial study showed that when participants were exposed to commercials in which they had little interest, performing a low-demand secondary task helped them to focus their attention on the commercials they heard. Therefore, participants were better able to recognize the information in the commercial than were participants who did not perform this task. However, the opposite was true when the commercial was interesting. In this case, performing a secondary task distracted consumers from attending to the commercial's content, leading to poorer recognition performance.

In addition to the memory performance, there was a significant condition x ad interaction on judgment, $F(1, 71) = 4.61, p < .05$. Correspondingly, participants rated the low-interest ad as less persuasive in dual-task conditions than in single-task conditions (3.34 vs. 4.97, respectively) but rated the high-interest ad as more persuasive in the single-task than dual-task condition (4.07 vs. 3.54).

Study 2 examined more specifically the impact of secondary task performance on the effectiveness of ads that varied systematically in both the content of the commercials and the style in which they were delivered. When the ad was interesting and intrinsically captured attention, we expected the secondary task to distract participants from attending to the ad content and to increase the likelihood that they would use presentation style as a heuristic basis for judgments. When the ad was not interesting, however, we expected that performing a secondary task would keep their attention focused on the ad, leading them to evaluate the product on the basis of the commercial's content.

This study was similar to the first, using existing radio commercials that were delivered in uninteresting tones (according to pre-tests), except that in study two the fifth, target ad (a) contained either strong or weak arguments and (b) was delivered by a professional commercial voice actor in an either interesting or less inflective ("uninteresting") style (Marsh et al 1997). After hearing the commercials, participants evaluated the product and performed a recognition memory task. 181 participants were assigned randomly to the eight combinations of task conditions (dual-task vs. control), ad content (strong vs. weak arguments) and presentation style (interesting vs. boring).

The effects of dual tasks on recognition replicated those observed in Study 1. Dual-task participants had better recognition memory than control participants when the target commercial was presented in a boring way (11.35 vs. 10.39), but had poorer memory for the commercial when it was conveyed in an interesting way (10.41 vs. 10.77), $F(1, 173) = 3.30, p < .07$.

Analyses of product evaluations yielded a three-way interaction of task conditions, ad content and ad style, $F(1, 172) = 5.07, p < .05$. When the target ad was delivered in an interesting way, a secondary task increased participants' tendency to base their judgments on the style in which it was delivered independently of its content. When the ad was delivered in an uninteresting fashion, however, the effect of doodling depended on the ad's content. That is, it increased the ad's impact (from 5.21 to 6.28) when it contained strong arguments but decreased its impact (from 5.47 to 4.60) when the arguments were weak.

Overall, these studies show that when a task requires attention to information that is inherently uninteresting, a secondary task can actually increase attention to the information, compared to groups that focus solely on the ads, as evidenced by both memory for the information and its impact on judgments. However, when the message is conveyed in an interesting fashion, individuals attend to the content rather than engaging in stimulus-independent thought. In this case, performing a secondary task can decrease the effect of the content and increase the likelihood of using the style of presenting the message as a basis for judgment.

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Does Exposure to Concept Products Affect Consumer Judgment of Marketed Products?

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In some industries, it is a common practice to develop *concept products*, i.e., prototypes that are very advanced both in terms of technical functionalities and of innovativeness of their design. These prototypes are usually exhibited at trade shows and at industry events, and typically anticipate the launch of marketed products with similar features. Concept products, however, often feature technical functionalities so innovative, that are difficult to implement on large scale production, and are usually characterized by a very innovative design, often too futuristic to be featured by marketed products without substantial adaptations.

By means of theories on the effects of exaggeration and on structural alignment, we argue that exposure to the design and to the functionalities of concept products may have an impact on consumer evaluation of marketed products. Specifically, we predict a positive effect of exposure to a visually exaggerated concept product on judgment of the marketed product (H1): when a novel design is preceded by exposure to its exaggerated form (i.e., the concept product), exaggeration attracts subjects' attention to the distinctive features of the design more than in the case of exposure to a non-exaggerated exemplar (Rhodes, Brennan and Carey 1987; Mauro and Kubovy 1992; Rhodes and Tremewan 1996). In addition, the emphasis on the distinctive features of the design provided by exaggeration is feasible to leave a stronger trace in implicit memory. This trace may eventually enhance the fluency in processing those features when other exemplars developed along the same design structure are encountered, thereby improving their evaluation (Reber et al. 1998). We expect, however, functional exaggeration of the concept product to moderate such effect (H2): On the one hand, exposure to an exemplar featuring very high (extreme) levels of performance on a given functional feature may set a standard for the judgment of other exemplars on that same feature, causing a contrast effect that hurts the judgment of other, less performing, exemplars (Herr, Sherman and Fazio 1983; Herr 1986). On the other hand, however, the occurrence of such contrast effect is contingent upon the degree of context-target similarity, i.e., should occur only in case both the prime (concept product) and target (marketed product) are judged as belonging to the same category (Stapel and Winkielman 1998). An exaggerated design (high visual exaggeration) may favor the perception of the concept product as less thematically or temporally related to the marketed product, thus reducing the likelihood of the occurrence of a contrast effect .

Concept products may feature different degrees of visual and functional alignment with their respective marketed versions. For instance, companies may invest in developing and promoting a very advanced technological feature within a concept project, but then implement and promote different features in the marketed product. Similarly, companies can develop very innovative and futuristic designs for their concept products, but then design the actually marketed products as less disruptive. We argue that the visual alignment between the concept product and the marketed product influences negatively the judgment of the marketed product (H3), since it activates a 'thematic link' between the two stimuli in consumer mind. The more the two products are visually aligned, the higher likelihood that they are judged as belonging to the same category and thus compared in terms of technical functionalities.

Thus, once this link is activated, it leads to an implicit comparison between the technical features of the concept product and those of the marketed product. If the concept product features high functional alignment with the marketed product, then the very advanced technical functionalities of the former are likely to influence negatively the evaluation of the latter, which typically features more moderate performance levels on those same technical functionalities. However, it may be that the concept product features different technical functionalities (low functional alignment) than the marketable car. Therefore, it is less immediate for consumers to engage in

comparisons between the features of the concept product and those of the marketed product, since non-alignable differences are harder to compare than alignable differences (Markman and Gentner 1996; Gentner and Markman 1993). In such case, consumers would be less likely to be influenced by the high performance of the concept product when they evaluate the marketed product (H4).

We test the four hypotheses in two experimental studies using concept cars and marketed cars as stimuli, in which we manipulate visual and functional exaggeration (Study 1) and visual and functional alignment (Study 2) of the concept product, and assess their effects on the judgment of marketed products. Results support our hypotheses and show that i) exposure to a *visually exaggerated* concept product positively affects the judgment of a moderate product featuring a similar design, and moderates the negative effects of the concept product *functional exaggeration*; ii) the degree of *functional alignment* between a concept product and a marketed product negatively affects the judgment of the marketed product upon exposure to the concept product, with this effect being moderated by the degree of *visual alignment* between the concept product and the marketed product. Our results contribute to shed light on how exposure to concept products can influence consumer judgment of marketed products, thus emphasizing how this promotional tool may enhance new product performance even in the initial stages of new product launch.

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1.8 Individual Papers: Precursors to Persuasion

Room: Maple Room C

Chair: Ann Kronrod, MIT

Affect and Social Information in Persuasion: Investigating When Homophily Cues Influence Judgment

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Despite the long history of research on source characteristics and many identified main effects, there still is lack of knowledge on how and under what circumstances different source characteristics affect persuasion. Wilson and Sherrell (1993), in a meta-analysis of source effects in communication and persuasion research, found that only 58% of the cited main effects (223 of 383) were statistically significant. People seem to be selective in the manner in which they incorporate social information into their judgment and it seems that the same information has different judgment values when people have different goals.

The extant literature takes different source characteristics as identical. Hence, usually different source characteristics (similarity, expertise, credibility, etc.) are seen to enhance persuasion through a similar mechanism. More importantly, most previous attempts usually take a cognitive approach towards source characteristics. They seem to be lacking in explaining how affective reactions towards the sources with certain characteristics (incidental similarity, homophily, attractiveness, etc.) influence persuasion.

In this research I try to add to the literature on source characteristics by investigating the mechanism under which an important source characteristic, homophily (the perceived similarity in terms of age, gender, lifestyle, etc. of the source to the receiver of the message), influences judgment by eliciting affect towards the source. I build my explanation on the feeling as information theory (see Greifender, Bless and Pham, 2010 for a review).

I conducted two preliminary experiments which for this purpose. First, I show that people use homophily information only in situations where they consider use of feeling relevant for the judgment at hand (exp. 1). Second, I show that the assessment of relevance of feelings takes place as long as people have the cognitive resources available. If cognitive resources are limited, people rely on homophily information even in situations where they don't see feelings relevant to their judgment (exp. 2).

Both experiments were run in the context of online reviews for hotels and I concentrated on negative reviews. The research paradigm in both experiments was very similar. Participants first read a scenario about the purpose of choosing a hotel. Then, without being given any actual information about the hotel itself, they were given online reviews about it. In both experiments, homophily was manipulated through the profile of the online reviewer through age, gender and some information about the lifestyle of the reviewer.

Pham (1998) showed that feelings are considered to be more relevant in consumption situations where people have consummatory rather than instrumental motives (judging a movie for enjoyment vs. judging a movie for a course project). I argue that homophily works by eliciting positive affect towards the source of the message and this positive affect translates into persuasion. Therefore, people should assess the relevance of their feeling for the judgment at hand and they should use their feelings only in situations where they think feelings have a ground to be an information source for the judgment. So in the first experiment I hypothesized that homophily increases persuasion only when a consumer is judging a product for experiential purposes. A 2 (Experiential vs. Functional consumption) \times 2 (Homophilous vs. Non-homophilous) between subjects experiment supported this hypothesis.

It has been suggested that the assessment of relevance of feelings for the judgment at hand is dependent upon availability of cognitive resources (Avnet and Pham, 2007). In experiment 1 I argued that in situations where people see no relevance for use of feelings (functional situations), they do not rely on homophily cues from the source. If this explanation is true, by decreasing participants' cognitive resources we should make them rely on homophily cues even if the consumption situation is functional. To test this, I ran a 2 (Homophilous vs. Non-Homophilous) \times 2 (High vs. Low availability of cognitive resources) between-subjects experiment. The results of this second experiment supported the hypothesis that even in the functional consumption situation, participants will be influenced more by a homophilous reviewer if they are under high cognitive load. In accordance with the feeling as information theory, these results are evidence that even in conditions where feelings are not seen to be relevant, homophily could have an effect if people do not have the cognitive capacity to assess the relevance of the affect elicited by the source (Pham and Avnet, 2007).

Overall the results of these three experiments show that feelings as information theory has significant explanatory power in predicting the conditions under which homophily has an effect on persuasion. At least some of the persuasive power of a homophilous source seems to come from the feelings elicited by that source which are governed by the rules that this theory predicts.

Of course these results are preliminary finding and further experiments to rule out the alternative explanations are being conducted. In the next experiment I propose to manipulate participants' use of their feeling in making judgments of the hotel by directly asking them to use their emotions or telling them to use their logic in making judgment. The prediction is that participants who are told to use their emotions will rely in homophily information but the ones who are told to use their logic will not.

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Should You Be Ashamed of Yourself? How Emotion Norms Shape Consumption Choices

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Though shame is an undeniable aspect of the human experience, little research has examined the role it plays in consumer behavior. In this research, we use the emotion norm associated with shame as a way of understanding how shame can shape consumer choices. Emotion norms refer to ever-present societal rules regarding when we should feel specific emotions and which emotions are appropriate to what situations. We propose that because shame is typically characterized by feelings of worthlessness and undeservingness (Tangney and Dearing, 2002), shame comes with an emotion norm that one does not deserve to feel positively. Furthermore, we suggest that this anti-positivity emotion norm, in combination with our basic desire to make hedonic choices and alleviate negativity (Gilbert, Wilson and Centerbar, 2003), leads ashamed individuals to prefer consumption products that elicit neither positive nor negative emotion but psychologically uncomfortable and aversive mixed emotions instead. Thus, we predict that the emotion norm associated with feeling ashamed can lead individuals to make choices that are inconsistent with mood regulation and with the hedonic principle.

In study 1, we validate that the emotion norm in shame is an avoidance of positivity. Participants were asked to read a brief paragraph about a fictional individual named Fred who had either done something he was sad about or something he was ashamed about. Then, participants were asked to rate how appropriate it would be for Fred to engage in a series of positive and negative activities, given that he had done something he was sad about or ashamed about. Results revealed that individuals in the sad condition were more likely to rate it as appropriate for Fred to engage in mood-repair type activities relative to individuals in the shame condition. Thus, we find some confirmation that the emotion norm associated with shame is an avoidance of positivity.

In study 2, we examine how emotion norms might affect individuals' consumption choices. Participants were primed to feel shame or put in a control condition and asked to allocate 100 points among a positive, a negative and a mixed emotion-eliciting novel. Results revealed that relative to the control condition, participants in the shame condition allocated fewer points to the positive novel option and more points to the mixed emotions option. Of note, the behavior of the shame condition individuals is in direct opposition to the classic mood repair findings and occurs despite the fact that mixed emotions are psychologically uncomfortable and aversive.

In study 3, we set out to provide further support for the existence of an emotion norm in shame and to rule out alternative explanations for our effects. Participants were first asked to read a short paragraph that encouraged, discouraged or said nothing about relying on their sense of what-is-appropriate to make decisions. Then, participants completed a shame, sadness or neutral prime before allocating points across four novel options (positive, negative, neutral and mixed). Results of the study revealed that shame condition consumers continued to divert their points from the positive option to the mixed option, despite the presence of the neutral option. This result rules out the possibility that ashamed participants chose the mixed emotion option because they expected the positive and negative components of the mix to cancel out and result in emotional neutrality. In contrast to shame condition participants, those in the sad condition allocated their points primarily to the positive option, suggesting that the mixed emotions effect is a result of shame specifically and not general negative valence. Finally, shame condition participants who were encouraged to rely on their sense of

what-is-appropriate allocated the most points to the mixed emotion option, suggesting that it is indeed emotional appropriateness or adherence to emotion norms that is driving our effects.

In study 4, we explore how the anti-positivity emotion norm in shame might lead individuals to prefer products that elicit specific combinations of mixed emotions over others. If emotion norms deter ashamed individuals from feeling purely positive emotions because they are undeserving, then we expect ashamed consumers would prefer mixed emotions where the positive component of the mix is other-focused rather than self-focused. Participants completed a shame or neutral prime and then allocated 100 points among novel options. In this study, the emotions characterizing the mixed emotion book were manipulated so that the focus of the positive and negative emotion components varied across conditions. The results of the study revealed that consistent with previous studies, shame condition participants allocated more points to the mixed option relative to control condition participants. Importantly, shame condition participants were especially likely to allocate points to the mixed option when the positive emotion component was other-focused rather than ego-focused. This result is consistent with the idea that positive other-focused emotions are more in line with the shame-related emotion norm than positive self-focused emotions.

Taken together, this work builds on and extends the existing research on motivated emotion, mixed emotion and emotion norms in 1) examining how shame can shape consumer choices 2) suggesting a novel reason for why individuals might seek out one emotional state or another 3) providing an explanation for why mixed emotion-eliciting products might succeed in the marketplace 4) demonstrating that not all negative emotions lead to hedonically driven behavior and 5) examining how emotion norms as fundamental social structures influence consumption behavior.

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Market Order Heuristics: The Effects of Product Category Duration and Volatility on Brand Preference

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Research devoted to understanding the pioneer advantage from the behavioral perspective examines the relationship between the order of market entry and consumer brand preference (Kerin, Varadarajan, and Peterson 1992). This research stream has identified a number of different mechanisms that lead consumers to prefer the first-in-market brand to later brand entrants (Niedrich and Swain 2008). One mechanism that consumers use when motivation and ability are low is to employ a “first-in-market heuristic” where consumers prefer the first-in-market brand (Alpert and Kamins 1994; Niedrich and Swain 2003). Although not empirically tested in controlled laboratory experiments, a number of researchers have also suggested the possibility of a newer is better or last-in-market heuristic (Niedrich and Swain 2008; Mick and Fournier 1998). Thus, the purpose of this research is to better understand the conditions under which consumers employ these paradoxical decision rules.

We propose that consumers may employ two contradictory market-order heuristics (first-in-market, last-in-market) depending on the characteristics of the product category. In this research we study the effects of product category duration, which we define as the length of time the category has existed and product category volatility, which we define as the perceived rate of product category

change. In particular, we predict that product category duration and volatility will affect the object of consumer's thoughts (company or product) and subsequent market order inferences (first or last is better).

Niedrich and Swain (2003) provide evidence that consumers believe first-in-market companies are more credible than later entrant companies, and thus prefer brands from the more expert and trustworthy firm. We theorize that consumers are more likely to use this first-in-market heuristic in product categories perceived as long in duration and low in volatility.

In contrast, and consistent with Mick and Fournier (1998), our theory suggest that consumers are more likely to prefer newer brand entrants in product categories perceived as short in duration and high in volatility. Mick and Fournier (1998) found evidence of a last-in-market heuristic that served as a coping technique where consumers chose the most recent model because it was perceived to be the last in its class to become obsolete. This heuristic suggests that consumers focus on product attributes rather than on company characteristics.

Our overarching proposition is that the effects of product category duration and volatility on brand preference are mediated by the object of thought (company versus product); more specifically we propose that:

- H1:** Product category duration increases (decreases) company (product) thoughts.
- H2:** Product category duration increases (decreases) preference for first- (last-) in-market brands.
- H3:** Product category volatility increases (decreases) product (company) thoughts.
- H4:** Product category volatility increases (decreases) preference for last- (first-) in- market brands.
- H5:** Company (product) thoughts increase preference for first- (last-) in-market brands.

We also predict that dispositional innovativeness will affect brand preference. Because dispositional innovativeness measures consumers predisposition to adopt new products (Hoffman 2005, Steenkamp and Gielens 2003), consumers high in this trait should prefer new entrants (Selinger, Dahl, and Moreau, 2006).

- H6:** Consumers high (low) in dispositional innovativeness prefer last- (first-) in market brands.

Four hundred and twenty university students were randomly assigned to two of four conditions (four product categories: cell phones, energy bars, pain medicine, or insurance). In each condition, subjects read a definition of the product category followed by a short description of two competing brands. The description of each brand was the same, except Brand A was the first-in-market brand and Brand B was the new market entrant.

Participants were then asked to indicate their brand preference on a 7-point scale from Brand A (1) to Brand B (7) and list three preference related thoughts and classify these thoughts as product or company. A measure of thought object was created using a 4-point scale ranging from 1 (all company thoughts) to 4 (all product thoughts). Next, using 7-point likert scales (strongly disagree 1, strongly agree 7), we administered a 3-item measure of product category duration (e.g., this product category has existed for ages), a 5-item measure of product category volatility (e.g., innovations are very common), and a 4-item measure of dispositional innovativeness (e.g., I enjoy taking chances in buying new products) adapted from Steenkamp and Gielens (2003). The composite

reliability for these three multi-item measures were .97, .95, and .77 respectively. Furthermore, the variance-extracted estimates were greater than the squared correlations between these three constructs, providing evidence of discriminant validity (Fornell and Larcker, 1981).

The hypotheses were tested using structural equation modeling. Although the chi-square statistic was significant ($\chi^2 = 154.05$, $df = 72$, $p < .000$), the fit statistics generally conformed to recommended standards (GFI = .95, CFI = .97, RMSEA = .05). All model paths were significant ($p < .001$) and in the predicted direction (H1: $\beta = .20$; H2: $\beta = .26$; H3: $\beta = -.17$; H4: $\beta = -.19$; H5: $\beta = .17$; H6: $\beta = -.14$). More critical to our overall proposition, Sobel tests indicated that the relationships between duration and preference (Sobel test statistic = 3.12, $p = .002$) and between volatility and preference (Sobel test statistic = -3.12 $p = .002$) are partially mediated by thoughts. Thus, all hypotheses were supported.

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“Oui to the Wii!”: The Role of Figurative Language in WOM

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Suppose you are interested in purchasing an Opera DVD. You scan through online consumer reviews and come across the following two phrases: "*The singer's voice is excellent*", and "*I pressed the 'play' button and heard angels*". In this example, only the first phrase contains figurative language. Are the two phrases equally convincing? If not, why? In this work we address these questions, as well as the conditions that determine the use of figurative language on the internet.

The internet has empowered consumers worldwide. Consumer WOM appearing in blogs, forums and retailer web sites can make or break a product or service. Consumers willingly share their impressions about products, contributing reports on relevant websites (Heath, Bell and Sternberg 2001). One potential impetus of reviewers is to exert influence, and what better way can a reviewer seeking influence choose than using effective language.

Figurative language has long been shown to be more effective than literal language, both in interpersonal communication (e.g. Bryant and Gibbs 2002, Giora et al 2004, Caillies and Butcher 2007) and in advertising (e.g. McQuarrie and Mick 1999, Sopori and Dillard 2002, Phillips and McQuarrie, 2009). However, three overlooked issues emerge, which are the focus of this work:

First, the research on persuasiveness of figurative language in marketing contexts focuses on non-natural language found in advertising. In this work we explore figurative expressions naturally produced by consumers.

Second, to date the reasons for the higher influence of figurative language have not been thoroughly explored. Exceptions would be the work of Sopory and Dillard (2002), who show that the pleasure caused by metaphor suppresses resentment to advertising, and the recent work of Phillips and McQuarrie (2009), which relates the effectiveness of figurative language in advertising to the appreciation of the artfulness of creative figurative expressions. Our goal in this work is to investigate two competing explanations for the effectiveness of figurative language; one explanation is based on emotionality, while the other pertains to conversational norms. We test whether figurative language is more effective when it fits highly emotional states or when it meets conversational norms. In this work we contrast the two competing explanations of differences in emotionality vs. difference in conversational norms. If the

conversational norms explanation is the case, then we should find differences between contexts in figurativeness of WOM, but not in emotionality level. However, if the context effect on emotion is the case, then we should find not only differences in figurativeness but also in emotionality levels between the contexts. These two explanations will be elaborated on in further sections.

Finally, all previous works related to general discourse and did not slice it into contexts. In this work we explore the plausible suggestion that context may moderate the extent of use and the degree of effectiveness of figurative language. Previous research commonly relates to hedonic context as evoking emotional attitudes, while utilitarian context usually elicits rather functional, rational attitudes (e.g. Chaudhuri and Ligas 2006; Homer 2008). Relying on this research body we inquire whether hedonic context, compared to utilitarian context, alters the use and the effectiveness of figurative language, as well as the possible reasons for this difference.

In our studies we focus on the conditions that invoke the use of figurative language in consumption context and the conditions that increase the effectiveness of figurative language in WOM. We present four experiments which show that: (a) Hedonic contexts prompt use of figurative language and Utilitarian contexts prompt the use of literal language. (b) In hedonic (but not utilitarian) context reviews containing figurative language are more persuasive than reviews containing only literal language; and (c) The effect of context on figurative language use and effectiveness in hedonic vs. utilitarian context depends not on emotional intensity, but on the different conversational norms in those two contexts.

Studies 1 and 2 focus on factors that facilitate use of figurative language, while studies 3 and 4 explore factors that make figurative language more persuasive in WOM:

In study 1 we analyzed actual product review headlines from www.Amazon.com. Our analysis shows that in reviews of hedonic products more extreme product evaluations employ more figurative language, while in reviews of utilitarian products review extremity does not moderate use of figurative language ($F_{2,42}=18.4, p < .001$).

In study 2 we manipulated emotional level by asking participants to describe either an extremely pleasant/unpleasant or an emotionally neutral service experience. Then participants chose between figurative and literal phrasing of otherwise identical service descriptions. We found an interaction between context (hedonic/utilitarian) and emotional level on figurative language use. In reviews for hedonic services (e.g. hotel, spa), but not utilitarian services, stronger emotionality fostered use of figurative language ($F(1,127)=4.7, p < .033$). In this study we also find that emotional level is not related to the context, i.e. people may get equally emotional both in hedonic and utilitarian context.

In study 3, we show, using figuratively and literally phrased product reviews, that for readers of hedonic product reviews, figurative language yields more favorable evaluations of the product, higher purchase intention, higher perceived helpfulness of the review and higher intention to spread WOM about the product. However, for readers of reviews of utilitarian products figurative language does not affect perceptions and attitudes and sometimes even reverses this effect ($F_{1,191}=8.8, p < .003$). In this experiment we also explicitly test and find that conversational norms regarding figurative phrasing are different across contexts.

In study 4 we examined the effects of figurative language on real consequential consumer decisions. After reading figurative or literal reviews of the same store, which contains both hedonic and utilitarian products, participants were asked to choose hedonic or utilitarian products as a reward for participation in the experiment. Participants that read reviews containing figurative language chose more hedonic products as prizes than participants that read reviews that did not contain figurative language ($t=5.0, p < .001$).

This work focuses on internet communication and shows that in naturally produced online texts conversational norms play a role in language choice, and in the effect of figurative language on readers. Further implications and research directions are discussed.

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2.1 Individual Papers: Affective Forecasting and the Pursuit of Happiness

Room: Grand Ballroom A

Chair: Tina Kiesler, California State University, Northridge

Affective Forecasting and Consumer Procrastination

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Procrastination applies to a wide range of consumer contexts with important consequences, such as completing tasks on time to obtain financial rewards or avoid penalties (e.g., tax returns, financial investments, etc.), and meeting purchasing deadlines. Research on procrastination suggests that people are likely to procrastinate due to factors such as task aversiveness and perceived effort required for a given task (Anderson 2003). Numerous individual difference variables can also contribute to procrastination (Steel 2007). Research in this domain, however, is largely silent on mediating variables that may motivate action. For example, research has yet to examine whether limitations in people's self-knowledge (e.g., inability to accurately predict one's future emotional states) can influence procrastination.

Behavioral economics classifies procrastination as present-biased preference. This perspective implies that people are insufficiently forward-looking and that procrastination occurs as a consequence of failing to appreciate that repeated decisions to postpone today's tasks will result in a lack of progress in the long term (Akerlof 1991). A logical extension of this perspective suggests that manipulations that encourage forward-looking behavior may de-bias present-bias preference. The proposed research examines affective forecasting as a means of manipulating forward-looking behavior and emotional states that may influence procrastination.

Affective forecasting refers to predictions people make about their future emotional states. Research in this domain has consistently demonstrated an effect termed the "impact bias" whereby "forecasters" tend to overestimate the intensity and duration of their reactions to future events compared to "experiencers" who experience the same events but do not engage in affective forecasts. (Gilbert et al. 1998). Importantly, the impact bias has been shown to be stronger for negative emotions (e.g. regret) than for positive emotions (e.g. happiness) (Wilson and Gilbert 2003). While the majority of research in affective forecasting has focused on the identification of these biases, little empirical work has looked at how these biases might influence people's actions. That is, most work has focused on the forecasts themselves and research has yet to examine whether the motivation to avoid such negative states in the future might encourage individuals to take action to change their environment. The motivation of the current research is to examine the behavioral consequences of affective forecasting by looking at its influences on procrastination.

Experiment 1 examined the relationship between affective forecasting and consumers' procrastination on holiday shopping. Longitudinal data was collected over a one-month period to assess changes in participants' affective forecasts and progress on shopping lists. One month prior to the holiday gift exchange season, 44 undergraduates were randomly assigned to either the "forecaster" or "experiencer" condition and reported the number of people and gifts on their holiday shopping lists. Following the lab session, participants were contacted six times at undisclosed intervals to report their progress and affective states. As predicted, forecasters significantly overestimated the intensity of negative emotions (stress, unhappiness, and perceived difficulty) they would feel as the last day of shopping approached. Further, the forecasting error was shown to influence actual behavior. Forecasters initiated and completed tasks earlier than experiencers.

Experiment 2 examined the progress on Valentine's Day shopping. The design was similar to Experiment 1 with three exceptions. First, participants only needed to shop for one individual resulting in a shorter shopping list. Second, Valentine's Day has unique symbolic meaning focused on romantic partners and may have carried higher stakes with regard to finding the appropriate gift. Third, the study examined a shorter two-week time frame. In essence, we were curious to know whether the effects observed in Experiment 1 would manifest themselves in a singular task over a shorter period of time with potentially higher consequences. Fifty-six undergraduates in romantic relationships were randomly assigned to either the "forecasters" or "experiencers" condition. Following the lab session, participants were contacted three times at undisclosed intervals to report their progress and affective states. As in Experiment 1, forecasters overestimated the intensity of their future negative emotions, initiated and completed tasks earlier than experiencers, and made greater progress over time.

Experiment 3 examined whether affective forecasting essentially operates the same way as a warning (i.e., being warned about how one will feel in the future if they procrastinate). We tested this with 169 undergraduates in a consumer-themed scavenger hunt modeled after the TV reality show *The Amazing Race*. Participants were given two weeks to complete a series of five tasks which required them to take a photograph of various retail stores in the local area and upload the photographs to a website that tracked each participant's progress over time. Participants were randomly assigned to the "forecasters," "experiencers," "implicit warning," or "explicit warning" condition. The manipulations for the forecasters and experiencers conditions were similar to the first two studies. Those in the implicit warning condition were warned that they would feel negative emotions if they were to procrastinate, and to act accordingly. Those in the explicit warning condition received the same warning and were explicitly instructed that such negative emotions could be avoided by not procrastinating and starting the task right away. Forecasters again exhibited an impact bias and a higher proportion of forecasters completed the race by the deadline. Issuing implicit and explicit warnings about the negative consequences of procrastination were largely ineffective at motivating action.

These findings have several theoretical implications. Research on affective forecasting has focused on the identification of the impact bias and has yet to examine its influence on actual behavior (i.e. actions). To our knowledge we are the first to document the effects of affective forecasting on behavior by showing that the impact bias motivates consumers to avoid forecasted negative states by initiating and completing tasks earlier than non-forecasters. Further, we find that issuing implicit and explicit warnings about the negative consequences of procrastination are largely ineffective at motivating action. This suggests that the process that occurs during affective forecasts is distinct from processing warnings and is more effective at motivating goal-consistent behavior.

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Ratings and Reviews: The Use of Others' Opinions in Forecasting Enjoyment

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Satisfactory purchase decisions frequently depend on consumers' ability to accurately forecast their future enjoyment. Extant research in marketing (Patrick, MacInnis, and Park 2007; Wang, Novemsky, and Dhar 2009) and social psychology (Gilbert and Wilson 2007; Kahneman and Snell 1992) has addressed the issue of forecasting behavior, demonstrating that we are often poor at making such forecasts. However, modern shopping environments provide increased access to user-generated content (UGC - e.g., product reviews), which have been shown to facilitate decision making (Weiss, Lurie, and MacInnis 2008) and purchase intention (Chevalier and Mayzlin 2006). Our research explores the forecasting implications of two distinct types of UGC: product reviews and numeric ratings. We examine the cognitive processes by which consumers incorporate review vs. rating information into their forecasts, and the role played by presentation format in guiding these processes.

Numeric ratings and reviews each offer distinct advantages for forecasting. Ratings are concise and easily understood, but reviews provide a far richer context which may enable prospective consumers to simulate their consumption experience (Adaval and Wyer 1998; Ghose and Ipeirotis 2010). Unfortunately, the affective forecasting literature documents numerous cases in which this simulation is ineffective. (Gilbert et al. 2009 provide a prominent example).

As a means of integrating mixed findings, we argue that the respective utilities of rating and review information are differentially dependent on the similarity (Hoch 1988; Forman, Ghose, and Wiesenfeld 2008) in preference structures between forecaster and reviewer. In making this argument, we model the forecasting process as one of anchoring-and-adjustment (Davis et al. 1986), where readily available numeric ratings serve as a natural anchor, and review content influences adjustment via mental simulation. The utility of a rating-based anchor is logically highest when reader and reviewer have similar preference structures; in these cases, we expect results corresponding to the affective forecasting literature, such that: 1) rating information alone is more useful than review information alone, and 2) although intuition suggests that both types of information should be more useful than one type alone, consumers will actually make more accurate forecasts based solely on rating information.

However, when similarity in preference structures is low, a rating provides a very misleading anchor. In this case, even error-prone review-based simulation is preferable, as the content of the review provides not only product information but also information about the author's preference structure (e.g., a concert reviewer mentions that they like bass-heavy music in a glowing review), allowing readers to identify the disparity and adjust their simulation accordingly (a reader who does not like bass-heavy music incorporates this in her simulation and adjusts her prediction downward). Therefore, our model implies that when preference similarity is low, consumer forecasts based solely on review information will be more accurate than those based solely on rating information, and the combination will be more useful than rating information alone.

The hypotheses above were examined in three studies. In the first, undergraduate participants ($N = 221$) were provided peer information about four music clips (gathered at an earlier pretest session) and asked to predict how much they would enjoy each clip using a continuous (100-pt) scale; the four clips included three 'targets' and one decoy. Specific information varied between-subjects: the review group received only a peer review, the rating group received only a peer rating, and the combination group received both review and rating together. After an intervening distracter task, participants listened to the three target clips along with one filler and reported their enjoyment of each.

For purposes of analysis, preference similarity was calculated as: $[100 - \text{ABS}(\text{subject evaluation} - \text{reviewer evaluation})]$, and forecast error was calculated as $\text{ABS}(\text{subject forecast} - \text{subject evaluation})$. Analyses revealed a significant two-way interaction of information type and similarity on forecast error. As predicted, when similarity was high, forecast error was significantly lower for the rating group than either the review group or the combination group. However, when similarity was low, forecast error was significantly lower for the review group than either the rating group or the combination group. Therefore, not only was the utility of ratings vs. reviews moderated by similarity, but providing 'more' information often induced more error.

The most striking divergence of our model (and findings of Study 1) from related work regards cases where preference similarity is high (c.f. Gilbert 2009). Study 2 was designed to provide convergent evidence in a different setting. The procedure was modified from that of the first study, with short movies this time forming the stimuli. One movie was selected as the target, and peer ratings and reviews were collected via pretesting. In order to create a context of low preference similarity, we selected reviewers with opinions diverging substantially from the pretest sample mean. In the main study, 87 undergraduate participants were divided into review and rating conditions. Participants first viewed information regarding six movies (including the target) and made forecasts for each, then viewed and evaluated the target. A pre-analysis data check confirmed that observed preference similarities were small in magnitude and similar for the two groups. Most importantly, supporting our theoretical arguments, analyses revealed that forecast error was significantly lower for the review-only group than for the rating-only group.

In Study 3, we explored the process by which rating and review information are integrated. Based on models of belief updating (e.g., Hogarth and Einhorn 1992), we argue that the format of information presentation should influence forecast accuracy through the integration strategy that is evoked. In settings like ours, these models suggest that when items are evaluated as they are encountered ("step-by-step"), later items tend to be more impactful on overall evaluations. However, when items are evaluated all at once ("end-of-sequence"), earlier items are more impactful. Applying this paradigm to the setting of Study 2, we predicted that reviews will be weighted most heavily (and forecasts most accurate) when they occur first in a format encouraging end-of-sequence processing, but second in a format encouraging step-by-step processing.

The procedure of Study 3 was adapted from that of the earlier studies. Participants ($N = 89$ undergraduates) read peer information, made forecasts, and then evaluated short movie clips. All participants received both a numeric rating and a text review; however, information order was manipulated by presenting the rating either before or after the text review. Presentation format also had two levels: step-by-step participants were asked for a forecast after viewing each piece of information, while end-of-sequence participants provided one forecast after viewing both pieces together. As predicted, analyses of forecast errors revealed a significant interaction effect of order and integration mode. For participants who read reviews first, the end-of-sequence mode produced smaller forecast errors than the step-by-step format; however, for those who read ratings first, the end-of-sequence format resulted in larger errors.

Taken together, our results demonstrate that the influence of different types of information on forecasting is heavily dependent on the similarity in preference structure between reviewer and forecaster. Furthermore, the format in which peer information is presented influences forecasts in predictable ways. These findings have important implications for researchers exploring cognitive processing of word-of-mouth communications, as well as practitioners interested in utilizing such content to inform or influence consumer choice and satisfaction.

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But How Did You Expect To Feel? The Motivated Misremembering of Affective Forecasts

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Following an event, people often reflect on how it compared to their expectations. For example, after a political election, people might consider whether they had correctly predicted the winner, the winning margin, or even their own feelings about the result. Extant research has shown that when actual forecasts and actual experiences are discrepant, people attempt to resolve this dissonance by recalling their forecast as being closer to the experience than it actually was. This hindsight bias (Fischhoff 1975; Hawkins & Hastie 1990) has been documented in probability judgments and, to a lesser extent, in affective forecasts. Prior work has largely focused on situations where experiences diverge from actual forecasts; as a result, little is known about how people recall their forecasts when their actual experience is similar to the actual forecast. In the present research, we demonstrate that in such situations, recalled forecasts systematically diverge from both actual forecasts and actual experiences. Specifically, people tend to recall their affective forecast as being less favorable than their actual affective experience. We claim that people misremember their forecasts in this way so as to make their experience feel more surprising to them, which we describe as an “illusion of surprise.” Since surprising outcomes are often more elating than expected outcomes (Mellers et al. 1997), people feel happier immediately after misremembering their predictions. Across three experiments, we show that recalled forecasts tend to be less favorable than actual forecasts and actual experiences. We also demonstrate that the misremembering of affective forecasts occurs via an affect regulation mechanism; that is, people report greater happiness at the time of recall when they misremember their forecasts.

The objective of experiment 1A was to test whether individuals misremember their affective forecasts as being less favorable than both the actual forecast and the actual experience of watching a movie. Participants were recruited immediately before or after watching the film Wall-E. Participants in the actual forecast condition were asked before they saw the movie to predict how happy they expected to be with Wall-E immediately after watching the movie. Non-overlapping participants in the recalled forecast condition were instructed to indicate their actual happiness with Wall-E on the same scale right after watching the movie. Next, participants in this condition were asked an additional question, also on the same scale: “Before seeing it, how happy did you think you would be with the movie you just viewed?”

As predicted, the recalled forecasts of participants were significantly less favorable than their actual experience. However, an alternative explanation for this data pattern could be that the movie Wall-E generally happened to be better than most moviegoers expected. We attempted to rule out this artifact-based explanation by comparing actual forecasts and recalled forecasts, between-subjects. We found that recalled forecasts were also less favorable than actual forecasts, rendering unlikely the possibility that participants in the recalled forecast condition were correctly recalling their a priori expectations. Furthermore, actual forecasts made before seeing Wall-E did not differ from the actual affective experience reported after seeing the film, which suggests that participants knew beforehand how they would feel after seeing the film (i.e., the surprise reported by experiencers was illusory and not actual). In experiment 1A, participants in the recalled forecast condition were enlisted immediately after viewing Wall-E; therefore, it is possible that only those individuals who had relatively low expectations for the film before seeing it agreed to participate. Although we have no reason to believe that the actual expectations of participants in the recalled forecast condition would differ from the actual expectations of participants in the actual forecast condition, our study design cannot rule out this possibility. In order to alleviate this concern, we utilized a within-subject design in experiment 1B. We also hoped to provide evidence of the functional benefit of misremembering forecasts.

Experiment 1B involved a within-subject design with two conditions (forecast type: actual vs. recalled). Participants were recruited prior to entering the movie theater to participate in a brief two-part research study. In Part 1 of the study, participants forecasted what their enjoyment of the movie was likely to be if asked on the next day. Part 2 of the study occurred on the following day; participants noted their actual enjoyment of the movie and then recalled their affective forecast. At the conclusion of Part 2, participants read the description of another unreleased movie and indicated their intention to see it. We reasoned that only participants who felt happy when recalling their prior movie experience would be inclined to watch another movie.

Results of experiment 1B support our theorizing. Recalled forecasts of participants were significantly lower than both their actual experience and the actual forecasts they made the day before. Furthermore, actual forecasts and actual experiences did not differ; in other words, participants actually enjoyed their movie as much as they had anticipated beforehand; yet they reported recalling that they would not enjoy it as much as they had.

We computed the difference between the actual forecast and recalled forecast of each participant, with more positive difference scores indicating a stronger illusion of surprise. To evaluate whether this illusion of surprise made participants more likely to watch the new movie, we regressed participants' difference scores on their likelihood of watching the new movie. Consistent with our predictions, we found that the illusion of surprise significantly predicted likelihood to watch, such that those who misremembered being surprised by the movie they had seen were also more likely to watch the new film. Furthermore, even when participants' actual experience was included as another potential predictor in the regression, the illusion of surprise remained a significant predictor of likelihood to watch the new movie.

In experiments 1A and 1B, actual experiences were concordant with actual forecasts, a condition which we argue is necessary for the illusion of surprise to occur. The objectives of experiment 2 were to test this boundary condition and to provide more direct support for our proposed affect regulation mechanism. Participants watched and evaluated a film clip which has been shown in prior research to evoke neither positive nor negative affect (used in Geers and Lassiter (2002)). Participants' expectations about the film clip were manipulated beforehand. Depending on condition, participants were induced to believe that they would watch a clip that was: (1) good, (2) neither good nor bad, or (3) bad. After expectations were manipulated, all participants predicted what their enjoyment of the clip was likely to be. Later in the experimental session, all participants viewed the identical (neutral) clip. Afterwards, participants reported their actual enjoyment of the clip and then recalled how much they expected to enjoy the clip before seeing it. Finally, participants' affective valence and arousal was measured.

When participants' expectations deviated significantly from their actual experience, we found strong evidence of the hindsight bias; that is, people tended to recall their forecast as being closer to the experience than it actually was. However, when participants' expectations were consistent with their actual experience, participants misremembered their forecasts as being less favorable than both their actual experience and their actual forecasts. Importantly, this illusion of surprise affected self-reported happiness at the time of recall. Consistent with an affect regulation mechanism, participants felt happier if they reported being surprised by the film clip, irrespective of whether their surprise was real or illusory.

In sum, the present research shows that when experiences converge with expectations, the hindsight bias is unlikely to occur. However, even when experiences and expectations align, people may not recall their forecasts accurately. People evidently convince themselves that a good-as-expected experience was unexpectedly good; in so doing, they trick themselves into feeling happier.

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Mispredicting the Sensitivity of Affective Reactions to Outcome Characteristics

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Affective forecasters exhibit an impact bias whereby they overestimate their emotional reactions future events (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998; Wilson & Gilbert, 2003). Although many scholars have documented this forecasting error and have identified various reasons for why it occurs, little attention has been paid to how forecasting errors relate to different magnitudes of the utility functions and to the probability with which outcomes occur.

People generally have the intuition that they will experience greater utility from outcomes that are greater in magnitude (Kahneman & Tversky, 1979) and outcomes that are obtained with a smaller probability (Brandstaetter, Kuehberger & Schnerider, 2002; Mellers, Schwartz, Ho & Ritov, 1997). An interesting question is whether people can accurately predict the impact of quantitative specifications of such outcome characteristics on their experienced affect. Hsee and Zhang (2004) have already studied if forecasters considering magnitude specifications of more than one outcome (joint evaluation mode) can accurately predict the experienced affect for each outcome if they were encountered in isolation (single evaluation mode). They found that forecasters in joint evaluation mode overpredict the affective difference that magnitude specifications will evoke for experiencers in single evaluations mode because the joint evaluation mode renders them more sensitive to magnitude differences than experiencers.

In the present research we hypothesize that the difference in sensitivity between forecasters and experiencers is not contingent on the presence of other options. While forecasters report an emotional reaction they are not currently feeling, experiencers can feel the emotion vividly (Loewenstein, 1996; Loewenstein, Prelec & Shatto, 1998). This suggests that forecasters are in a more affect-poor state while experiencers are in a more affect-rich state. Previous research has shown that people in a relatively affect-poor state are more sensitive to quantitative specification such as magnitude and probability information (Hsee & Rottenstreich, 2004; Rottenstreich & Hsee, 2001). Based on this reasoning, we argue that forecasters are generally more sensitive to information about the magnitude of future outcomes and the likelihood with which the outcome will occur than experiencers. As a result they may overestimate the influence of such information on their experienced affect. An implication for this difference in sensitivity is a reversal of the impact bias whereby forecasters may underestimate their affective reaction toward small gains and losses.

Study 1 tested if forecasters overestimate the importance of magnitude of the outcome on their experienced affect. Participants of a 2 x 2 between subject design participated in a gamble where they rolled a die and won \$1 (\$20) if they rolled an even number. What participants didn't know is that the die was rigged so that all participants rolled an even number and won \$1 (\$20). Forecasters predicted how happy they would be about winning \$1 (\$20) if they rolled an even number. They then rolled an even number and received 1\$ (\$20). Experiencers rolled an even number, received \$1 (\$20), and were asked to indicate how happy they were after learning the outcome. Consistent with our proposition, forecasters predicted that they would feel happier about winning \$20 than \$1, but experiencers showed no difference in happiness about winning \$1 or \$20. Interestingly, forecasters underpredicted the happiness of winning \$1.

Study 2 examined if forecasters overestimate the impact of outcome probability on their experienced affect. Participants of a 2 x 2 between subject design played a game in which they could pick a ball from a bag containing 10 balls of the same shape and size and win \$1 if the ball had a check mark on it. A "draw string bag" was used, making the content of the bag invisible to the participants. In the low-probability condition participants were told that only one ball had a check mark on it; participants in the high probability condition were told that 9 balls had a check mark on it. Unbeknownst to the participants, all 10 balls were marked with a check.

Forecasters predicted how happy they would be about winning \$1 if they drew a ball with a check mark, then drew a winning ball and received \$1. Experiencers drew a winning ball, received \$1, and were asked to indicate how happy they were after learning the outcome. Forecasters predicted that they would feel happier about winning \$1 if their chance of winning was 10% rather than 90%, whereas the experiencers felt equally happy, independent of their chance of winning.

Study 3 examined if forecasters underestimate the impact of small wins and losses on their experienced affect. Participants of a 2 x 2 between subject design participated in a gamble where they rolled a die. Participants in the loss condition were endowed with \$1 and were told that they would lose \$1 if they rolled an even number. Participants in the gain condition were told that they would receive \$1 if they rolled an even number. Without the participants' knowledge, the die was rigged and all participants rolled an even number. Forecasters predicted how happy they would be about winning (losing) \$1 if they rolled an even number. They then rolled the die and were given or gave back \$1. Experiencers rolled an even number, were given or gave back \$1, and were asked to indicate how happy they were after learning the outcome. In line with our prediction, forecasters underestimated the impact of winning and losing \$1 on their experienced happiness.

The present research contributes to the existing literature on predicted utility by showing that forecasters are naturally more sensitive to quantitative outcome characteristics than experiencers. Furthermore this research reveals that participants overestimate the impact of outcome magnitude and outcome probability on experienced affect. As a result they exhibit a reversed impact bias whereby they underpredict the affective reactions towards small wins and losses.

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2.2 Symposium: Self-Control Failures: Pain of Payment, Perceptual Distortion, and Resource Depletion

Room: Pine Room

Chair: Manoj Thomas, Cornell University, USA

Discussion Leader: Klaus Wertenbroch, INSEAD

How Credit Card Payments Increase Unhealthy Food Purchases: Visceral Regulation of Vices

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The past two decades have witnessed a rapid increase in obesity among U.S. consumers. According to the Center for Disease Control, 34% of U.S. adults are obese, up from 23% in 1988. An additional 33% are overweight. These results suggest that the consumption of unhealthy food is increasing, and have prompted several researchers to examine the factors that influence consumers' decisions to buy unhealthy food. Intriguingly, this period has also witnessed an increase in relatively painless forms of payments such as credit and debit cards. The share of cash in consumer payments has fallen by a third, from 31% in 1974 to 20% in 2000. Cards are replacing cash as the preferred mode of payment; about 40% of purchases in 2006 were made using credit and debit cards. The average American carries 4.4 cards in his/her wallet. These trends raise important, but hitherto unaddressed, questions: Does the mode of payment

influence consumers' ability to control their impulsive urges? Are consumers more likely to buy unhealthy food products when they pay by credit or debit cards than when they pay in cash? We address these questions from a psychological perspective in this research.

Our conceptualization and hypotheses draw on two distinct streams of research: the literature on impulsive consumption and the literature on the psychological effects of different modes of payments. Based on the first stream of literature, we suggest that some unhealthy food products trigger impulsive purchase urges because of the desire activated by emotive imagery and associated sensations. Consumers impulsively buy such products even though they consider them to be unhealthy and experience regret after their purchase. Following Wertenbroch (1998), we characterize such food items as vice products. Based on the second stream of literature, we propose that mode of payment can influence decisions to purchase these vice products. Specifically, paying in cash feels more painful than paying by credit or debit cards. This pain of paying in cash can curb impulsive responses, and thus reduce the purchase of such vice products.

The notion that mode of payment can curb impulsive purchase of unhealthy food products is substantively important. The epidemic increase in obesity suggests that regulating impulsive purchase and consumption of unhealthy food products is a steep challenge for many consumers. Several factors contribute to this: the automatic nature of visceral responses to vice products, the depletable nature of cognitive resources that override these visceral responses, the chronicity of impulsive goals, the belief in the "unhealthy = tasty" intuition, and biases induced by contextual factors. Given that many consumers struggle to regulate their impulsive responses, the finding that mode of payment could serve as a self-regulation tool has substantive relevance for consumer welfare.

We report four studies that include a field study and three experiments to test the hypothesis about the influence of payment mode on purchase of unhealthy food products and the underlying mechanisms. In **Study 1** we analyze scanner panel data from a large retailer that operates 120 stores and serves more than two million customers stores in the Northeastern region of USA. The data has information about every transaction involving every single item that the chain sells including data about price, promotion, margin, and mode of payment for each transaction. We used a random sample of 1000 highly loyal single member households who primarily purchase from the chain's stores for our analysis and examined the purchases in 100 major food categories which account for 73% of the total basket size of consumers in our sample. The time period of our analysis was six months (Jan to June) in 2003 (latest period for which mode of payment information is available). Results of regression analyses, after controlling for several shopping and demographic variables, confirmed our hypothesis that consumers using credit cards are more likely to purchase impulsive and unhealthy products.

Studies 2 – 4 replicated this effect using samples from different populations, and offered insights into the underlying process. **Study 2** was a laboratory experiment wherein we examined whether participants assigned to the credit card vs. cash payment condition were more likely to buy unhealthy, impulsive food items. We specifically tested the hypotheses that the shopping basket will have a larger proportion of unhealthy food items when participants pay by credit card vs. cash and that mode of payment will have a larger influence on purchases of unhealthy, impulsive food but not on purchases of healthy, utilitarian food items (virtue products). To test this hypothesis, we presented participants with 10 utilitarian and 10 impulsive products and manipulated the mode of payment. Thus, this study used a 2 (payment mode: credit card vs. cash) x 2 (product type: vice vs. virtue) mixed factorial design with 10 replicates each of vice and virtue products. Findings from Study 2 supported both our hypothesis as well as the postulated mechanism. There were more unhealthy items in the cart when the mode of payment was credit cards ($M_{\text{CreditCard}} = 2.8$) than when the mode of payment was cash ($M_{\text{Cash}} = 1.9$; $p = .01$). However, the mode of payment did not affect the number of utilitarian items in the cart, $M_{\text{CreditCard}} = 3.9$ vs. $M_{\text{Cash}} = 3.8$, $F < 1$. Similarly, subjects spent more on unhealthy items when the mode of payment was credit card vs. cash. In

contrast, the mode of payment did not affect the amount spent on number of utilitarian products in the cart. Finally, consistent with our conceptualization, participants took less time to respond to unhealthy, impulsive (vs. healthy, utilitarian) food products.

In **Study 3**, we measured the pain of payment caused by card and cash payments. The moderated mediation analyses in Study 3 offered direct evidence of the mediating effect of pain of payment. In **Study 4**, using the spendthrift-tightwad scale, we found that individual differences in sensitivity to pain of payment moderates the effect of mode of payment. Together, these studies persuasively implicate pain of payment as the mechanism that underlies the vice-regulation effect of cash payments.

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The Effect of Self-Control on Risk Construction

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Insufficient self-control is often considered to be at the root of impulsive, harmful, yet attractive consumption behaviors—e.g., unhealthy food choices, overeating, smoking, excessive alcohol consumption, or problem gambling. Although the prevalence and outcome of these impulsive behaviors are widely documented, precisely how reduced self-control leads to impulsive, self-destructive action is less well understood. A simple view of this result is that low self-control simply reflects a reduced ability to resist tempting but potentially harmful behaviors. The current research explores this relationship from a different direction: how low self-control may distort the fundamental perception of the riskiness of such behaviors, through systematically biasing how perceived risk is constructed. Risk perception can be deconstructed into two distinct components: perceptions of the probability of a negative outcome occurring, and the consequences of that negative outcome. We find chronic differences in the weighting of these basic risk-components by individuals varying in self-control. Specifically, we show that low-self-control leads to heightened focus on probability, but relative neglect of consequences, when threats are potentially attributable to one's own self-control failings (e.g., risks due primarily to one's own behavioral choices). By disentangling these individual components of risk from an overall conception of risk, our approach yields deeper insight into self-control and impulse-control, and their relationship to risk underestimation and behavioral regulation.

Study 1: This study tested perceptions of overeating-related risks. After completing a measure of self-control in eating (Karlsson et al., 2000), participants completed three risk perception measures for heart attack and diabetes due to overeating. Participants rated perceptions of the consequences, probability, and overall threat for each risk.

We conducted within-group analysis using an estimated log-linear model predicting overall threat as the product of probability and consequences dimensions (e.g., Stone & Gronhaug, 1993). For both heart attack and diabetes due to overeating, the interaction between consequences and self-control was positive and significant ($p < .05$), while the interaction between probability and self-control was negative and significant ($p < .05$). The results imply that the negative consequences of diet-related health problems were a more important component of perceived risk among high-self-control eaters than high-self-control eaters. In contrast, the perceived probability of the negative outcomes proved relatively more important for low-self-control eaters, in terms of influencing overall threat perception.

In addition, we observed that low-self-control eaters—those presumably most at risk of overeating-related health problems—reported lower overall perceived risk of diet-related health problems than high-self-control eaters. This overall threat perception was 30% lower among low vs. high self-control eaters for heart attack, as well as becoming overweight ($p < .05$), and 40% lower for diabetes ($p < .05$). Thus, the weighted risk construction bias amongst the very individuals who are most at risk of the negative outcomes occurring led to a reduced level of overall perceived threat.

Study 2: This study generalized Study 1's results to risks beyond overeating-related diseases. Participants completed the same risk elicitation procedures as in Study 1 for a broader range of risks, and completed a general self-control scale (Karlsson et al 2000). Results were analogous to Study 1. Relative to high-self-control, low-self-control led to overweighting of probability and underweighting of consequences in diverse domains characterized by a high self-agency—that is, risks whose occurrence or non-occurrence can be attributed to one's own behavioral choices. Specifically, we observed this pattern for the overeating-related problems from Study 1 ($p < .05$), car accidents due to reckless driving ($p < .05$), lung cancer due to smoking ($p < .01$), and illness from eating undercooked food ($p < .05$) or choosing to eat genetically modified foods ($p < .01$).

In contrast, risks with low self-agency (e.g., genetic-related cancer, avian flu, computer hard-drive crash due to a power surge) did not show any significant interactions between self-control and probability or consequence. Thus, when adverse consequences are not attributable to behavioral control failings, such as inability to resist a temptation, low self-control individuals do not underweight consequences when formulating overall risk.

Study 3: A important question unresolved by the first two correlational studies is whether distorted risk construction is a result of low self-control per se, or instead reflects a shift in emphases on different risk components across all levels of self-control. Study 3 manipulated perceived self-control to induce differential risk-components weighting. Differences were induced through an ease-of-retrieval paradigm (Schwarz et al. 1991) in which participants recalled two (easy) versus ten (difficult) instances in which they were able to exercise self-control (or, in the control group, did not complete this task at all). As confirmed by an independent manipulation-check, recalling only two instances of past success in exercising self-control induced increased perceptions of one's own self-control abilities, compared to others, whereas having to recall ten such instances reduced perceptions of one's own self-control abilities ($p < .01$).

Results again showed that low self-control led to increased focus on probability and reduced focus on consequences in formulating overall perceived risk. Compared to both the control condition, participants in the difficult-recall condition (low self-control) weighted consequences less and probability more for a range of (high self-agency) risks (e.g., heart attack and hypertension from overeating, speeding, excessive drinking, smoking). In addition, the easy-recall (high self-control) and control conditions did not differ, suggesting that distortion of risk-components weighting is a one-sided effect driven by reduced self-control in particular.

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Decomposing Automatic and Controlled Processes after Self-Regulatory Effort

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The self-control problem is often conceptualized as a conflict between an automatic, impulsive system that is focused on short-term gratification and a controlled, reflective system that is focused on long-term goal achievement (Hoch and Loewenstein 1991; Strack et al. 2006). In the last two decades, a large number of studies have found that prior exertions of self-control lead to more indulgent behavior (Vohs and Heatherton 2000). The dominant perspective underlying these studies is the self-control strength model, according to which the controlled system is fueled by a limited pool of resources that only restores slowly over time (Baumeister et al. 2000; Vohs 2006). By focusing exclusively on the impairment of controlled processes, this perspective largely ignores the possibility that prior acts of self-control may also (1) increase automatic short-term positive associations with regard to the tempting target, (2) intensify automatic short-term negative associations with regard to alternative options for the tempting target, (3) lower the accessibility of automatic long-term negative associations with regard to the tempting target, and (4) decrease automatic long-term positive associations with regard to alternative options for the tempting target. This is striking because changes with regard to these automatic processes may also lead to indulgence. We present two experiments examining to what extent prior acts of self-control alter the activation of automatic associations.

In the **first experiment**, participants performed one of two versions of a Stroop task. One version required participants to control their automatic response tendencies, while the other version did not (DeWall et al. 2007). Afterwards, participants engaged in a categorization task in which they were asked to classify pictures of food items as dessert or vegetable as accurate and as fast as possible. The pictures were preceded by a compatible short-term prime (e.g., “delicious” for desserts and “tasteless” for vegetables), an incompatible short-term prime (e.g., “tasteless” for desserts and “delicious” for vegetables), a compatible long-term prime (e.g., “unhealthy” for desserts and “light” for vegetables), or an incompatible long-term prime (e.g., “light” for desserts and “unhealthy” for vegetables). Reaction times in the compatible short-term (long-term) trials were subtracted from reaction times in the incompatible short-term (long-term) trials for vegetables and desserts separately. Higher values indicate stronger short-term positive associations for desserts, stronger short-term negative associations for vegetables, stronger long-term negative associations for desserts, and stronger long-term positive associations for vegetables. The results show that, relative to a control group, participants who were required to exert control in the Stroop task had stronger short-term positive associations for desserts, while there was no difference in reaction times with respect to the three other types of associations.

Although differences in reaction times across groups are often interpreted as resulting from differences with respect to automatic rather than controlled processes, no task is “process pure”, and it cannot be concluded from the previous study that prior exertion of self-control alters the activation of automatic associations per se (Sherman et al. 2008). The **second experiment** was designed to (a) replicate the effect observed in the first experiment using error rates instead of reaction times as a dependent measure, and (b) trace differences in error rates across compatible and incompatible trials to automatic and controlled processes. For this purpose, we slightly adjusted the procedure used in the first experiment. Specifically, we only allowed participants a very brief response window of 500 ms to make their responses (Lambert et al. 2003). With this small procedural adjustment, we were able to boost error rates considerably. Using error rates as a dependent measure, the second experiment yields exactly the same pattern of results as the previous experiment. Using a process dissociation model (Bishara and Payne 2009), we fitted several multinomial process models to estimate the following:

1) whether people follow a control-dominant (System 2) or automaticity-dominant processing (System 1) mode, 2) what is the likelihood of automatic activation of short- and long-term associations? 3) what is the likelihood that respondents can provide a controlled response? 4) what is the extent of guessing, that is likelihood that a response is given based on random guessing?

We find that the default method of categorization for virtues and vices when people are not depleted is to rely on automatic processes. When people engage in a prior act of self-control, they **shift** from an automaticity-dominant processing mode to a control-dominant mode, fully intending to try to determine the difference between a virtue and vice. However, ironically, this shift actually leads to a greater activation of automatic short-term positive associations for vices relative to the no-depletion condition while not affecting the activation of long-term negative associations. In sum, contrary to traditional models of self-control which suggest that indulgence is due to a failure of controlled processes, we find that depletion leads to increased attempts to use controlled processes, but the effect of depletion is not seen in reduced activation of long-term negative consequences but rather in increased activation of short-term positive consequences. Implications for controlled and automatic processes as well as those for consumer welfare will be discussed.

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2.3 Individual Papers: The Effects of Art, Music, and Aesthetic Design on Consumer Preference

Room: Birch Room

Chair: Michael Lowe, Texas A&M University

Leaving Something for the Imagination: The Effect of Visual Concealment on Preferences

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Marketers resort to different tactics in order to attract consumer interest. One of the most popular is the “peak-a-boo” ploy, which consists on deliberately withholding from view some of the key aspects or attributes of a product. The idea underlying this practice is to spark consumer curiosity when these are faced with an undetermined novel stimulus, something which would increase interest in the product, and hopefully, its probabilities of being purchased. Nonetheless, this type of marketing tactic may instead hurt consumer evaluations. A large literature in marketing has shown that when consumers are asked to evaluate products described by limited attribute information judgments, they often display uncertainty aversion, where options known to be average on all attributes are preferred to those with missing attribute values (e.g., Meyer 1981; Huber and McCann 1982; Johnson and Levin 1985; Jaccard and Wood 1988; Simmons and Lynch 1991; Sanbonmatsu et al., 1992). Likewise, research that has examined how individuals make inferences about the attractiveness of whole visual images from fragments suggests that these judgments are highly sensitive to the affect triggered by the fragments when viewed in isolation—implying that a poor choice of which product or service parts to reveal--and how much to reveal--could easily doom a persuasive campaign designed to lure consumers through curiosity (Zhao and Meyer 2007).

In this research we help explain the circumstances under which visual concealment of a whole stimulus can help or hurt consumer decisions to learn more about and subsequently choose a novel product. We propose that visual concealment can trigger two interrelated psychological forces that drive the effectiveness of a product fragment: a curiosity effect (see, Loewenstein 1994) that draws consumer interest toward objects that are incompletely portrayed, and an inference effect that conditions the level of curiosity on projections about the likely value of the completed whole based on observed fragments. This indicates that consumer assessments of partially-concealed product images often—but not always—act as an inverted-U shaped function of the percentage of the object that has been revealed. Moreover, we demonstrate that the relationship between the size of a product fragment and consumer interest in and preference for the whole product is moderated by the valence of the whole product, such that the inverted-U shaped relationship exists only when the whole product is positively as opposed to negatively evaluated.

We found support for our predictions across four laboratory experiments using different product stimuli and procedures. Experiment 1 tested the hypothesized inverted U-shape relationship between fragment size and preference for a whole by using abstract stimuli such as word fragments in a setting similar to that of “The Hangman game”. This study showed that participants had a higher interest and preference towards a moderate size word fragment as opposed to a large one, which demonstrates that “more is not always better”. Experiment 2 provided further evidence for the hypothesized U-shape relationship between fragment size and preference towards it by using marketing related stimuli such as futuristic car images. Experiment 3 demonstrated the generalizability of the results by using male and female human faces. Given that studies 1 and 2 employed within-subjects designs, experiment 3 also used a between-subjects setup to rule out alternative explanations for the results of the previous two experiments such as boredom, satiation and demand effects. Moreover, this study further demonstrated the effect of curiosity on preference and choice by using varied dependent measures. Experiment 4 employed attractive and unattractive human faces to demonstrate that the hypothesized inverted U-shape relationship between fragment size and preference will not exist in the case of unattractive stimuli. Finally, Experiment 5 provided support for curiosity as the underlying mechanism behind the effect by demonstrating that this is only significant for participants’ that have high need for cognitive closure, a construct that highly correlates with curiosity.

A paradoxical consequence of our findings is that the products or visual images that benefit the most from concealment are those that have the least to hide; the more attractive the completed whole, the more it may pay to leave something for the consumer’s imagination. Moreover, laboratory results suggest the existence of an unexpected empirical regularity in the “ideal” level of revelation of an image: across a variety of stimulus domains we find that curiosity in seeing more of objects is maximized when about two-thirds of the object has been revealed—a percent large enough for the bulk of the object to be identified, yet small enough for uncertainty to still exist about the appearance of the completed image. This research informs marketers about the sensitive role that fragment size may play in consumer preference for aesthetic products in cases where these are partially revealed as part of a marketing campaign.

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Thinking Styles Moderating the Spillover Effects of Visual Art on Persuasiveness

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Visual art images have been displayed in advertisement to infuse intended connotations into products (Hoffman 2002). Hagtvedt and Patrick (2008a) have shown that perceptions of luxury associated with high art spill over from the artwork to products regardless of the specific content of the artwork.

Extending their work, we theorize that an individual difference stemming from cognitive thinking style (Nisbett et al. 2001, Choi et al. 2003, Peng and Nisbett 1999) moderates the influence of high art through the spillover of luxury perceptions. Holistic thinkers attend to whether all elements of the product blend harmoniously with each other and with the context (Nisbett et al. 2001, Norenzayan et al. 2002, Choi et al. 2007), so they evaluate a commercial product using an acknowledged high art image less favorably. Combining transcendent and ideal images of high art with the mundane commercial product appears incongruent, ruining the prestigious image of high art, and thus the effect of luxury perception spillover on the product diminishes. In contrast, analytic thinkers would perceive the high art image used in the product as one of its discrete attributes and use the luxury cue of high art as a rule of assignment for categorizing it as high quality, which leads to positive brand evaluation. Through 3 experiments, we find that holistically thinking customers perceive the product using high art images as less luxurious than analytic customers, and thus evaluate the product with high art images less favorably.

In study 1, we examined how chronically different thinking styles affect the spillover effects of a positively or negatively valenced art image. 106 undergraduates were asked to review a new soap dispenser with a positive (Monet's *Palazzo Mula*) vs. a negative (Turner's *the Building of the House of Lords and Commons*) art image on the surface (drawn from Hagtvedt and Patrick 2008b), and provide their opinion on it, and then indicate the extent of agreement with the ten statements of holism scale (Choi et al. 2003). Regressing brand attitude (7 point scale; positive, like, favorable, interesting; $\alpha = 0.918$) on holism and valence revealed a significant holism \times valence interaction ($\beta = -0.628$, $t = -2.279$, $p = .025$) and a main effect of art valence ($\beta = 4.106$, $t = 3.040$, $p = .003$, $M_{positive} = 4.408$, $M_{negative} = 3.327$). Separate regression analyses conducted for each valence condition confirmed that holistic thinkers' preferences decreased when the high art image was positive ($\beta = -0.538$, $t = -2.294$, $p = 0.026$) and thinking style was not significant in the negative condition ($p = 0.471$).

Study 2 replicates the results for more actionable dependent variables: buying intention (BI) and willingness to pay (WP) using a positively (Van Gogh's *Starry Night* borrowed from Hagtvedt and Patrick 2008a) vs. a negatively valenced image (Munch's *the Scream*) presented in a print advertisement for a new MP3 player. The data from 106 undergraduates confirmed significant main effects of art valence ($\beta_{BI} = 3.799$, $t_{BI} = 2.653$, $p_{BI} = 0.009$, $M_{BI,positive} = 3.19$, $M_{BI,negative} = 2.86$; $\beta_{WP} = 4.239$, $t_{WP} = 3.373$, $p_{WP} = 0.001$, $M_{WP,positive} = 3.65$, $M_{WP,negative} = 3.41$) and holism \times valence interactions ($\beta_{BI} = -0.718$, $t_{BI} = -1.124$, $p_{BI} = 0.016$; $\beta_{WP} = -0.833$, $t_{WP} = -3.249$, $p_{WP} = 0.002$). The slopes of holism at each condition of valence confirmed that holistic thinkers were less positive towards the influence of art when exposed to a positive image ($\beta_{BI} = -0.679$, $t_{BI} = -2.968$, $p_{BI} = 0.004$; $\beta_{WP} = -0.450$, $t_{WP} = -2.373$, $p_{WP} = 0.021$) and thinking style did not moderate when the image was negative ($p_{BI} = 0.416$; $p_{WP} = 0.168$).

In Study 3, we provide further evidence of moderating role of thinking style by manipulating cognitive load (Monga and John 2008, Choi et al. 2003, Gilbert, Pelham, and Krull 1988). 154 undergraduates were randomly asked to memorize a list of 1 (low) vs. 10

(high cognitive load) word(s) and instructed to recall the word(s) at the end of the study (Drolet and Luce, 2004; Monga and John 2008). After being exposed to a new smart phone advertisement with a positively valenced art image (Renoir's *Jeanne Samary in a Low-Necked Dress*), the participants responded to questions about brand attitude, buying intention, willingness to pay, perceived luxury, and holistic tendency. A regression using brand attitude as a dependent variable (7 point scale; positive, like, good, favorable, attractive, and interesting; $\alpha = 0.957$) revealed significant main effects of holism ($\beta = -0.469, t = -2.727, p = 0.007$) and cognitive load ($\beta = -3.171, t = -2.355, p = 0.020$) along with a significant holism \times cognitive load interaction ($\beta = 0.674, t = 2.803, p = 0.006$). The slope of holism at each condition of cognitive load revealed that brand attitude is not influenced by holism under high cognitive load ($\beta = 0.205, t = 1.195, p = 0.236$), but declined under low cognitive load as holistic tendency increased ($\beta = -0.469, t = -2.779, p = 0.007$). Regressions using BI and WP also led to the same conclusion.

We regressed luxury index (7 point scale; high quality, high class, luxurious, and prestigious; $\alpha = 0.929$) on holism, cognitive load, and a holism \times cognitive load interaction and found significant main effects of holism ($\beta = -0.445, t = -3.017, p = 0.003$) and cognitive load ($\beta = -3.016, t = -2.615, p = 0.010$) along with a significant holism \times cognitive load interaction ($\beta = 0.641, t = 3.110, p = 0.002$). The slope of holism was significant and negative under low cognitive load, ($\beta = -0.445, t = -2.693, p = 0.009$) and insignificant under high cognitive load ($\beta = 0.195, t = 1.606, p = 0.113$). A series of regression analyses showed that (1) holism \times cognitive load interaction was significant for luxury index ($\beta = 0.066, t = 2.455, p = 0.015$); (2) luxury index on brand attitude was significant ($\beta = 0.692, t = 13.725, p = 0.000$); and (3) the direct effect of holism \times cognitive load interaction on brand attitude was originally significant ($\beta = 0.075, t = 2.522, p = 0.012$) and became insignificant ($\beta = 0.030, t = 1.256, p = 0.210$) after the luxury index was included ($\beta = 0.683, t = 13.416, p = 0.000$). The Sobel test confirmed that the perception of luxury fully mediated the influence of the holistic tendency under high/low cognitive load on art spillover on brand attitude ($z = 2.407, p = 0.016$), BI ($z = 2.379, p = 0.017$) and WP ($z = 2.373, p = 0.018$).

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Gender Differences in Responses to Contrast Elements in Product Designs

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The design of the product is often the first point of contact for consumers with the product. It influences whether the product is actively considered for purchase (Bloch 1995) and can also have a pervasive effect on the desirability of a product, its fit with the parent brand and, eventually, the satisfaction consumers derive from its use (Noble and Kumar, 2010).

Fundamentally, design conveys visual information that evokes aesthetic responses in individuals. One of the major elements in the visual appearance of objects is contrast (Hekkert 2006), and the goal of the present research is to examine how consumers respond to high and low levels of contrast in product designs. To this end, we integrate research on gender differences in information processing with the concept of processing fluency and propose that aesthetic responses to different levels of contrast in product designs will depend on one's gender. Specifically, we suggest that males will perceive high-contrast product designs as more pleasant than low-contrast product designs, and no differences are expected for females. Next, we briefly present our theoretical arguments and summarize the results of two experiments which provided support for the gender by contrast interaction effect hypothesized in present research.

Contrast and Fluency of Processing. Contrast is a compositional strategy which involves the comparison of objective and measurable attributes, such as directions or curvature of a line or surface, shades, colors, or textures that differ from each other. It is often seen as the opposite of unity and is used to break it by unevenness, individuality or novelty (Coates 2003).

In addition to informational value, contrast can be characterized by a certain degree of processing fluency (or ease). There is a general agreement among psychologists that easy processing is hedonically marked and experienced as positive (Winkielman, Schwarz, and Nowak 2002). Furthermore, pleasant feelings evoked by easy processing of the stimulus feed into aesthetic responses to the stimulus because people draw on their subjective experiences in making attitudinal judgments (Ramachandran and Hirstein 1998).

Consequently, factors such as contrast that facilitate processing also lead to higher evaluations of the stimulus being processed. In particular, empirical support for the influence of figure-ground contrast on liking comes from the research by Reber, Winkielman, and Schwarz (1998). They presented participants with circles varying in contrast, and found that circles with high contrast were judged more positively. The authors argued that perceptual fluency was the key to preference for high-contrast objects over low-contrast ones. In the present research, we extend this idea by positing that the relationship between level of contrast and aesthetic responses to stimuli is moderated by gender differences in information processing.

Contrast and Gender Differences in Information Processing. Our work builds on the research by Meyers-Levy and her colleagues. In one study, Meyers-Levy and Sternthal (1991) found that females elaborated on the message items that were inconsistent with a prototype and incorporated these discrepancies into their judgments, to a greater extent than males. In another study, Meyers-Levy and Maheswaran (1991) found that males were less accurate than females in recognizing topics that were not mentioned in the ad. The authors suggested that this difference occurred because females employed a more effortful processing strategy and, therefore, were more likely to discriminate correctly between foil and true items. Taken together, the results of these studies suggest that compared to males, females were more willing to invest substantial cognitive resources in message processing and considered information in more detail.

In yet another study, Meyers-Levy and Zhu (2010) demonstrated gender differences in the domains of music and graphic art design. The researchers proposed that each of these stimuli conveyed two distinct types of meaning. Consistent with expectations, they observed that females discerned and used in their perceptions both meanings, whereas males based their responses only on one meaning. The authors argued that this difference occurred because females processed the stimuli comprehensively, while males employed a selective strategy. Interestingly, the findings were consistent across the contexts of music and graphic art design, which suggests that gender differences in information processing are not limited to verbal messages, but rather extend to other domains. Based on the above research, we anticipate that a similar pattern of gender differences will emerge in processing contrast elements in product designs. Specifically, we expect that females will use a detailed processing strategy and hence will exhibit sensitivity to and apprehension of low-contrast stimuli. They will process both high- and low- contrast designs with relative fluency and, as a result, should judge them as equally pleasant. For males, on the other hand, the level of contrast will be an important predictor of aesthetic responses. Males will employ a less effortful processing strategy and, therefore, should prefer high-contrast stimuli over low-contrast designs. The rationale for this proposition is that high-contrast stimuli are easier to process whereas low-contrast designs impose larger cognitive demands which may exceed the resources that males are willing to allocate for stimulus processing. Thus, we hypothesize:

H₁: Males will rate high contrast product designs as more pleasant than low contrast designs

H₂: There will be no differences in females' ratings of pleasantness between high and low contrast product designs

Summary of Results. To test the hypotheses, we conducted two contrast (low vs. high) by gender (males vs. females) between-subject experiments. In both studies, interaction effects were significant, and the simple effect tests were in the predicted direction. In the first study, males rated a high-contrast model of Blackberry phone as more pleasant than a low-contrast model; and in the second experiment, males preferred a high-contrast version of an office phone over a low-contrast version. No differences were observed for females in either study.

To summarize, in this research we proposed that males would judge high-contrast product designs more favorably than low-contrast designs and that the level of contrast would be immaterial for females' aesthetic responses. Empirical evidence supported our theorizing. From the practical point of view, these findings are informative because they may help managers target male and female segments with more appealing designs of products and packages. From the academic point of view, it would be interesting to examine gender differences in aesthetic responses to other design elements, such as unity, symmetry, and others.

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“I’ve got this song in my head”: How Music Influences Identity and Product Preference

Michael Lowe, Texas A&M University*

Kelly Haws, Texas A&M University

A recently released study on media usage in the United States revealed that youth between the ages of eight and eighteen are now listening to over 2.5 hours of music every day (Kaiser, 2010). This figure does not include the music that accompanies the additional 7.5 hours they spend absorbed in television, movies, the internet, or video games, or the music that permeates from retail spaces or other public areas. The study reveals that no other media type, *not even the internet*, has experienced more growth in usage over the past five years than music. Music has a widespread presence in marketing efforts, so what, if anything, does this music-saturated society mean for marketers?

While the communicative properties of music are profound (Koelsch et al., 2004), Tekman and Hortascu (2002) contend that the most vital role of music might be its social role as “music defines societies and groups.” Specifically, music aids in the management of self-identities and interpersonal relationships (North & Hargreaves, 1999) and the defining of group membership (Tekman & Hortacsu, 2002). Other research suggests that society shapes the self (Stryker & Burke, 2000). Therefore, we can infer that music plays an important role in shaping the self. In support of this relationship, a strong tie between music preference and personality is illustrated in Rentfrow and Gosling’s (2003) study of music in everyday life.

How individuals perceive themselves, their “self-concept” or “self-view”, is a strong behavioral motivator (Swann, 2009). For example, Aaker (2001) showed how consumption can be driven by a sense of congruency between self-views and product qualities. It is possible to cue the salience of certain maintained “identities” (Reed 2004); however, these “selves” are not immutable and our attitudes and behaviors may change with our self-views (Aaker, 1999).

Is the shaping of identity one of the roles of music in marketing? Zhu and Meyers-Levy (2005) confirm that music can indeed alter product perceptions, but no literature has addressed (1) the possibility that music alters self-perceptions, (2) the marketing/behavioral

implications this may have, or (3) how learned social-musical associations alter attitudes. Therefore, we examine how music as a social communication tool alters self-views and behaviors through a process we call “trait impression”.

A product category, example products, music, and adjectives that could relate to both music and the product were all carefully selected through a series of pretests. Clothing provided an excellent category to test the potential for trait adoption because of its centrality to both personality and music. First, assortments of 36 articles of clothing were assembled separately for males and females. The assortments intentionally reflected a variety of clothing styles and were pretested to ensure that no articles evoked extreme opinions or preferences. Next, we used the four general musical categories (i.e., intense and rebellious, reflective and complex, etc.) from Rentfrow and Gosling (2003) to guide the selection of four songs from the current Billboard Top 100. Finally, a list of adjectives suitable for describing both human and musical qualities was created with input from separate study participants.

In study 1, participants were randomly assigned to a musical treatment in which they were asked to indicate a level of perceived congruency between the song and each of the 36 articles of clothing in the (gender specific) array on a 7 point scale. This same exercise was repeated with the prepared list of adjectives, with the participants scoring each adjective according to how well it described the song. Finally, participants were asked to provide their own evaluation of each of the clothing articles, the song, and their personal musical preferences.

Mixed-model regression uncovered a significant positive relation between the participants’ perceived level of congruence between clothing article and song and the product evaluation. This effect was moderated by the level of preference for the song. Furthermore, main effects of the perceived social acceptability of the song, and measures of personal importance of music to the identity of the individual and their social groups were also positively correlated with product evaluation. It is important to note that no music was present while participants evaluated the products. This confirms the importance of music-product congruence and begins to illustrate the social role of music in marketing.

In study 2, participants were told they would be taking part in a study designed to examine online shopping environments. Background music (or no music for a control group) was played and it was explained that this was to control for extraneous effects not of interest to this particular study. Participants were then asked to provide evaluations of the clothing articles as if they were shopping online. The music then ceased and participants were asked to provide some information about their own personality, at which time they were asked to rate themselves along each of the same adjectives used in study 1. Finally participants were asked specific measures about the song and their musical preferences.

Results reconfirmed that participants demonstrated a preference for clothing articles that “fit” the music. This effect was again moderated by preference for the song. More importantly, however, is the significant relationship between the songs and self-views. Self-scores along the provided adjectives were compared to the measures taken from study 1 for each song. In short, participants viewed themselves as being more similar to the song they had just heard in the background. This effect was enhanced in participants that expressed a high personal identity attachment to music and those who felt that music was an important element of their close social groups.

The demonstrated preference for product-music congruence is clear. That this is driven in part by social associations and malleable self-views is important to consider both theoretically and managerially. These studies support Merriam’s observation that music can,

in fact, reach into and shape human behavior, and emphasize the need to consider additional roles of music in marketing.

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2.4 Symposium: Grounded Cognition and Consumer Psychology

Room: Oak Room

Chair: Aradhna Krishna, University of Michigan, USA

Mental Simulation from Product Depiction: When Visual Stimuli Facilitate Sensory Experience

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We utilize the theory of grounded cognition (Barsalou 2008) to explicate the effects of mental simulations on consumer behavior. One main component of grounded cognition is that our initial perceptions of an object are simulated or played back upon subsequent encounters with not only the object itself, but also representations of that object, such as verbal and visual depictions in advertisements. For example, when we use a mug, the brain encodes and integrates all of the different sensory perceptions related to the mug (e.g., how it looks, how it feels to grasp it, etc.). When we later produce knowledge of a mug, we mentally simulate prior perceptions associated with the mug, leading to neural activation of many of the same sensory regions of the brain active during perception (Goldberg et al., 2006; Simmons et al., 2005).

These simulations also include motor activity and the connection between vision and motor response. As supported by the literature, visual perceptions lead to simulations of the actions they afford (Tucker and Ellis 1998; Symes et al. 2007). For example, an object that appears to be graspable leads to mental simulations of grasping the object. We propose that the amount of mental simulation that this perception-action link affords should lead to differential consequences on behavioral intentions. With the present research, we propose that visually depicting a product which facilitates more (vs. less) mental simulation will result in higher (vs. lower) purchase intentions.

The pilot, as well as studies 1a and 1b was designed to provide support for our initial hypothesis. The stimuli used in the studies were images of coffee mugs, bowls of yogurt, and hamburgers. The visual depictions were manipulated by flipping the image of over a vertical axis, such that the handle (mug), spoon (yogurt), or hand (hamburger) was oriented toward the right or the left. Participants saw one of the two images of the stimulus, and then proceeded to the questionnaire. The specific measure of interest is how likely the participant would be to purchase the item depicted. We also capture the participants' gender and handedness.

Prior to analysis, we coded the data to reflect whether the visual depiction of the stimuli matched or mismatched the participant's handedness. This was done in all subsequent studies. As hypothesized, when the visual orientation matched the participant's dominant hand, purchase intentions were significantly higher than the mismatch condition.

The initial findings from study 1 are supportive of a mental simulation account, however, an alternative account for the results is simply that the depiction makes it appear easier to interact with, therefore allowing for a processing fluency account.

Prior literature on fluency has shown a strictly hedonically positive effect of fluency on evaluations (Reber, Winkielman and Schwarz 1998). We posit that the process underlying our results is mental simulation as opposed to fluency. These two accounts make differing predictions when the stimuli are negative in valence. In particular, fluency should make a negative stimulus more positive; however, mental simulation should make a negative stimulus more negative, as the simulated experience is aversive. Thus, the prediction for study 2 is that the initial positive effect of the visual depiction on purchase intentions will be reversed for a negatively valenced stimulus.

In order to test our hypotheses, we created two sets of stimuli: one positively valenced (Asiago Cheese and Tomato Soup), and one negatively valenced (Cottage Cheese and Tomato Soup). The manipulation of visual depiction used in study 2 is made by simply altering which side of the bowl the spoon is on. This study is thus a 2 (orientation: match, mismatch) x 2 (valence: positive, negative) between subjects design. The procedure and measures follow from the prior study.

The results from study 2 add further support to our hypotheses. The analyses yield a significant main effect of valence. More importantly, we get a significant interaction between orientation and valence. Follow-up contrasts reveal that within the positively valenced condition, the match condition leads to significantly higher purchase intentions than the mismatch condition. However, within the negatively valenced condition, the results are reversed. The findings from study 2 are supportive of a simulation account, as opposed to a pure fluency account, such that the visual depiction facilitates mental simulation, which in turn drives behavioral intentions.

With study 3 we seek to further explore the underlying process. As we propose that it is mental simulation underlying the results, restricting the ability to mentally simulate should attenuate the effects. Recent research shows that blocking the ability to perceive has consequences on conceptual knowledge (Oberman, Winkielman, and Ramachandran 2007). As our studies examine motor simulation, we have participants engage the senses used for such simulation. We operationalize this by having participants hold an object in their hand while viewing an advertisement. We posit that this simulation blocking will attenuate the effect of visual product orientation on purchase intentions.

The design for study 3 is a 2 (orientation: match, mismatch) x 2 (sensory block: dominant, non-dominant, none) between subjects design. In the sensory block conditions, participants either held a clamp in their dominant hand, non-dominant, or did not hold a clamp while viewing the advertisements. Participants viewed four advertisements, including the target advertisement which showed a cake with the fork either on the left or right. Following the advertisements, participants reported their purchase intentions for the cake.

Our analysis revealed neither the main effect of orientation nor the main effect of sensory block. However, we do get a significant interaction between the two factors. Follow-up contrasts reveal that within the no sensory block condition, the match condition leads to significantly higher purchase intentions than the mismatch condition, replicating the findings from the prior studies. Additionally, when the non-dominant hand is blocked, the pattern of results replicates the no-sensory block condition. However, within the dominant sensory block condition, the results are reversed. Thus, when participants' actual perceptual experiences are blocked, mental simulation is impeded with consequences on behavioral intentions. The findings from study 3 are again supportive of visual stimuli facilitating mental simulation and add behavioral evidence to the connection between perception and imagination.

Greed or Green? The Impact of the Color Green on Conservation of Monetary and Natural Resources.

Nina Mazar, University of Toronto, Canada*

Eugene Caruso, University of Chicago, USA

Chen-Bo Zhong, University of Toronto, Canada

Green signifies life and nature and has become synonymous with the movement to raise awareness and concern for the environment (Mazar & Zhong, 2010). In fact, manufacturers even use green packaging just to create the impression that their products are environmentally friendly (Chandler & Schwarz, 2010). Incidentally, green is also the color of paper money in the U.S., and is associated with greed and envy. Thus, the same color can be associated with both conscientious and selfish behaviors.

The present research explores whether priming the color green can elicit different behaviors depending on the context in which the prime-relevant associations are activated. A large literature on priming has reported that social behaviors can be elicited by subtle contextual cues. For example, exposure to pictures of exclusive restaurants can improve manners in a subsequent eating task (Aarts & Dijksterhuis, 2003). These results are often interpreted as due to contextual cues activating associated norms and goals that lead to consistent behaviors. For instance, because the Apple brand tends to be associated with originality, briefly exposing consumers to the Apple logo increases their creativity on a subsequent idea generation task (Fitzsimons, Chartrand, & Fitzsimons, 2008).

More recently, researchers have attempted to gain a better understanding of the mechanisms by which these effects operate (e.g., Bargh, 2006). Factors that influence the effect of primes include personal characteristics of the people exposed to the prime (e.g., novices vs. experts; Mandel & Johnson, 2002; see also Wheeler & Berger, 2007) as well as the features of the judgment target (e.g., level of ambiguity; Higgins, 1996) or the situation (e.g., desirability of the behavior; Macrae & Johnston, 1998). Building upon these ideas, we suggest that the same prime can activate different behaviors depending on the context. Specifically, exposure to green color in the context of environmental decisions might make the eco friendliness association salient and prime environmentally friendly, conscientious behavior, whereas exposure to green color in the context of financial decisions might make the money and greed association salient and produce behaviors that aim to promote self interest. We test this prediction in three studies.

In Study 1, 146 visitors to a museum engaged in a hypothetical dictator game in which they were given \$20 to divide with another anonymous participant. Some of the participants completed this questionnaire in a room with a green floor and green walls, whereas others completed it in an adjacent room with a black floor and off-white walls. Participants who made their allocation decision in the green room kept more of the money for themselves ($M=\$12.26$, $SD=4.16$) than participants who made their allocation decision in the non-green room ($M=10.29$, $SD=3.46$), $t(144)=3.11$, $p=.002$.

In Study 2, 72 students seated in individual cubicle desks in a lab participated in a product test study, in which they were asked to mix their own powder-drink by adding water to it and then rate the attractiveness of the color of the drink and how quickly the powder dissolved. Participants were given a measuring cup and were instructed to go to a water station and take as much water as they felt they needed for the task. Participants were randomly assigned to one of two color conditions. Those in the green prime condition had a green placemat on their desk and a green screensaver on the computer screen, whereas participants in the control condition had a white placemat and a white screensaver.

Participants primed with the green color took significantly less water ($M=265.3$ ml, $SD=123.5$ ml) than those in the control condition ($M=355.7$ ml, $SD=179.5$ ml), $t(66)=2.49$, $p=.015$. The color prime did not affect how appealing the color of the drink looked nor how fast participants thought the powder dissolved.

In Study 3, 144 participants seated in a lab engaged in a hypothetical variant of a public goods game in which they were asked to imagine they were part of a 100-person community that was going through a challenging period. Participants were randomly assigned to one of two color conditions (green vs. control-black) and one of two context conditions (money vs. water) in a between-participants design. We manipulated the color of the screensaver and mousepad to be either both green (green condition) or both black (control condition). Those in the money condition read about a challenging economic period that limited “the amount of money available, for example, to cover utility bills,” whereas participants in the water condition read about a challenging draught period that limited “the amount of water available, for example, to take showers.” Participants then had to face a social dilemma, in which they were asked to indicate how much money [water] they would take for themselves, leaving less resources available for the public good.

Consistent with our prediction, we found a significant color X context interaction on the amount of resources taken, $F(1, 140)=4.48$, $p=.036$. In the money condition, participants primed with green ($M=61.49$, $SD=32.21$) took more money than participants in the control condition ($M=54.58$, $SD=27.08$); in the water condition, participants primed with green ($M=52.30$, $SD=24.74$) took less water than participants in the control condition ($M = 65.21$, $SD = 27.68$).

Across three studies we show that, compared to a neutral color, green can increase selfishness in the context of money but decrease it in the context of natural resources. These results shed further light on the processes by which nonconscious primes can elicit different patterns of behavior within the same group of people depending on which of its associations are relevant in a particular context.

Something Smells Fishy Here: Suspicion Enhances Identification of a Fishy Smell, a Fishy Smell Increases Suspicion.

Spike Lee, University of Michigan, USA*

Norbert Schwarz, University of Michigan, USA

Across languages, suspicion can be expressed metaphorically as dislikeable odors (Soriano & Valenzuela, 2008). In English, the specific odor is fishy; if something smells fishy, it creates “doubt or suspicion” (Merriam-Webster, 2010). Extending grounded social-cognition research beyond its current focus on visual and tactile perception and on conceptual metaphors presumed to be universal (e.g., Affectionate=Warm; Moral=Pure; Important=Heavy; Powerful=High), we explore the grounding of suspicion in smell as instantiated in the English language.

Does social suspicion affect smell identification? In Experiment 1, participants were asked to close their eyes, sequentially open five test tubes wrapped in aluminum foil, sniff the content, and identify each smell. After giving instructions about this task, for half of the participants ($n = 40$), the experimenter hurriedly took away a form underneath the response sheet as if it was something participants were not supposed to see, and she remarked, “we’re not trying to hide anything here.” For the other half, she did not act or make the remark ($n = 40$). Next, all participants completed the smell identification task by identifying the smell of five consumer products (“autumn apple” fragrance oil, onion flakes, “creamy caramel” fragrance oil, “orange nectar” fragrance oil, and fish oil). Responses that included the item’s name or any one of its ingredients were coded as *identified*. As predicted, participants induced to feel

suspicious showed higher accuracy in identifying fish oil; suspicion did not affect accuracy in identifying any other smell. This pattern suggested a metaphor-specific effect of social suspicion on smell identification.

What is the psychological process that underlies this metaphor-based influence? Using an experimental causal-chain design (Spencer, Zanna, & Fong, 2005), Experiments 2-4 tested each step of our hypothesized causal chain: “Feeling suspicious → Accessibility of suspicion concepts → Accessibility of fish concepts → Identification of fishy smell.”

In Experiment 2, participants were induced to feel suspicious ($n = 25$) or not induced ($n = 24$), and did a word-completion task. Of the 20 items, 10 could be completed with suspicion-related words (e.g., *doubt*, *dubious*, *suspicious*). As expected, participants induced to feel suspicious wrote more suspicion-related words; thus, a feeling of suspicion increased the accessibility of suspicion concepts.

In Experiment 3, participants were primed with suspicion concepts in a scrambled-sentence task (based on the suspicion-related items in the word-completion task of Experiment 2; $n = 57$) or primed with unrelated concepts ($n = 59$). Next, they did a word-completion task with 20 items, 10 of which could be completed with fish-related words (e.g., *fishing*, *gills*, *fin*, *tuna*). As expected, participants primed with suspicion concepts wrote more fish-related words; thus, suspicion concepts increased the accessibility of fish concepts. In Experiment 4, participants were primed with fish concepts in a scrambled-sentence task (based on the fish-related items in the word-completion task of Experiment 3; $n = 19$) or primed with unrelated concepts ($n = 15$). Next, they completed the smell identification task used in Experiment 1. As expected, participants primed with fish concepts showed higher accuracy in identifying fish oil. There was no effect on any other smell. Thus, priming fish concepts specifically enhanced identification of fish oil.

Results from Experiments 2-4 suggest that the metaphor-specific effect of social suspicion on smell identification is mediated by a process of metaphoric concept association. Recognizing the unconscious nature of this process, we tested for the reversed causal effect in Experiment 5: Does incidental exposure to a fishy smell increase social suspicion? Participants were individually approached by an experimenter in a campus hallway and asked to complete an “investment decision task” (the trust game) together with another “participant” (a confederate). The participant and the confederate were each given 20 quarters. The participant first decided how much to give the confederate; any amount given would be quadrupled in value (e.g., \$0.25 would become \$1.00). The confederate could then decide to give any amount (all, some, or none) back to the participant. With trust, participants should give more money based on the expectation that the confederate would return a reasonable proportion of the investment; with suspicion, participants should give less money. Depending on condition, another confederate sprayed a segment of the hallway with one of three substances (fish oil, fart spray, water) while the experimenter recruited the participant (thus keeping recruitment unaffected by the smell). As predicted, participants who smelled something fishy (fish oil) invested less money than those who smelled another aversive odor (fart spray) or no odor (water). The last two conditions did not differ, indicating that the impact of a fishy smell is due to their metaphorical meaning, not mere negative affect. Thus, incidental exposure to a fishy smell increased social suspicion and undermined trust, as reflected in less cooperation in an economic trust game.

In sum, five experiments support the grounding of suspicion in smell. We find bidirectional effects, as social suspicion increases accuracy in identifying a fishy smell and exposure to a fishy smell increases social suspicion. Because the grounding is based on a metaphor, effects are specific to the metaphor and limited to a fishy smell. Our data further support the assumption that metaphor-based influences are mediated by nonconscious concept associations. These results extend grounded social-cognition research beyond the visual and tactile domains and shed light on the underlying mechanism. They also raise new questions about the operation of grounded concepts with identical structure (suspicion grounded in smell) but different cultural-linguistic instantiations (e.g., “fishy” in English).

Shifting Text Can Shift Thinking: The Effect of Subtle Changes in Text Presentation on Processing Style

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In this paper, we explore how impression formation can be impacted by subtle changes in the physical orientation of a message. Specifically, we propose that simply altering the angle of the text may impact one's tendency to process information more heuristically.

Previous literature has demonstrated that motivation and cognitive capacity influence information processing strategies. Heuristic processing increases when motivation decreases, as is the case for low involvement (Petty, Cacioppo and Schumann 1983; Chaiken 1980; Maheswaran, Mackie and Chaiken 1992) and positive mood states (Bless, Schwarz and Wieland 1996; Bodenhausen, Kramer and Susser 1994). Moods, for example, provide an informative function with positive moods signaling benign situations that require limited processing (Schwarz 2002). Similarly, heuristic processing increases when cognitive capacity is reduced, as in situations with high cognitive load (Gilbert and Hixon 1991; Drolet, Luce, and Simonson 2008). Both motivation and cognitive capacity affect judgments by influencing how information (individuating and categorical) is used in the impression formation process (Blessum, Lord and Sia 1998; Gilbert, Pelham and Krull 1988). The present research builds on extant literature by demonstrating how a minor—and nearly unnoticeable—change in text orientation can decrease cognitive capacity and increase reliance on heuristic processing strategies.

In two studies we demonstrate that text orientation can affect impression formation. More specifically, we show that reading misaligned text reduces one's reliance on individuating information, leading to evaluations more in line with categorical information. We propose that misaligned text deviates from the normal processing conditions, creating a challenge that reduces the cognitive capacity available for thorough processing. As a result, perceivers process the incoming information more shallowly, using heuristics to guide their judgments.

One hundred and twelve students participated in exchange for class credit. The subjects were randomly assigned to one of the four conditions in a 2(alignment: aligned vs. misaligned) x 2(cue: positive vs. negative) between subjects design. Participants were told the purpose of the study was to evaluate online business articles. The stimuli presented a fictitious article describing a product recall. Details in the article both supported and challenged the company's claim of safe manufacturing practices. The aligned condition presented the article as a block of text in an upright orientation as is typically viewed on a computer (i.e. text lines parallel to the top of the computer screen). The misaligned condition presented a block of text that was slightly tilted (1.5°) in relation to the top of the computer screen. To manipulate cue presentation the company name was varied, described as CanadianKitchen (positive cue) or ChenXie (negative cue).

After reading the article, participants were asked whether they believed the company knew production materials were potentially dangerous. This measure was completed on a seven-point scale anchored at 1=*Definitely knew* (i.e. guilty) and 7=*Definitely did not know* (i.e. not guilty). This measure was reverse coded as a measure of perceived guilt. We hypothesized that individuals' in the misaligned condition would be less (more) suspicious of the company with a positive (negative) name, whereas individuals' in the aligned condition would rate the two companies similarly.

Results support the hypothesis, indicating that text alignment influenced judgments of the company. A 2x2 ANOVA on perceived guilt revealed a significant interaction ($F(1,90) = 6.06, p < 0.02$). The main effects of cue and alignment were not significant. Planned contrasts revealed that subjects in the misaligned condition gave more favorable guilt assessment when presented with a positive cue ($M = 3.92$) than when presented with a negative cue ($M = 4.83; t(91) = 2.52, p < 0.02$). Within the aligned condition, guilt assessments did not differ between the negative cue ($M = 4.23$) and positive cue conditions ($M = 4.59; t(91) = 1.01, n.s.$), suggesting subjects in the aligned condition were relying more on the details of the story to make their assessments.

One hundred and forty-one students participated in exchange for class credit. The subjects were randomly assigned to one of the eight conditions in a 2(alignment: aligned vs. misaligned) x 2(cue: positive vs. negative) x 2(individuating information: positive vs. negative) between subjects design. Subjects were asked to read a person description and offer an impression of the target person.

The story described a normal day in the life of a David, a manager of operations at a large firm. Manipulation of text orientation was the same as Study I. Cue was manipulated by describing David's firm as either Greenpeace (positive cue) or Texaco Oil (negative cue). The firm name was mentioned three times. Individuating information was included to vary whether David's actions were or were not environmentally friendly and thus consistent or inconsistent with the cue. For example, David was described as investing primarily in green energy either because it made him rich (negative individuating information) or it made a helpful impact (positive individuating information). Three similarly valenced statements were included amidst other neutral information. The neutral information remained constant across conditions.

After reading the description, participants rated their perceptions of the target on six seven-point scales (from 1 to 7): *unfavorable-favorable*, *not environmentally friendly -environmentally friendly*, *negative-positive*, *not socially responsible-socially responsible*, *bad-good*, and *not likable-likable* ($\alpha = 0.93$). We predicted that participant judgments from the misaligned condition would be less affected by the individuating information presented in the stories, whereas participant judgments from the aligned condition would show greater influence of the individuating information.

A 2x2x2 ANOVA on attitudes revealed the expected significant two-way interaction effect of alignment and individuating information ($F(1,137) = 4.22, p < 0.05$). The pattern of means supports the hypothesis with negative individuating information leading to more negative attitudes for the aligned condition ($M = 3.98$) compared to the misaligned condition ($M = 4.08$), and positive individuating information leading to more positive attitudes for the aligned condition ($M = 6.16$) compared to the misaligned condition ($M = 5.58$). Within the positive individuating information, the simple contrast between aligned and misaligned was significant ($t(137) = 2.44, p < 0.02$).

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2.5 Symposium: More than Birds of a Feather: New Mechanisms for Social Influence

Room: Spruce Room

Chair: Cait Poynor Lamberton, University of Pittsburgh, USA

Social Treatment and Its Impact on Consumer Behavior

Monica Popa, University of Alberta, Canada

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Small-talk, ridicule, compliments, or insults are all types of social treatments that consumers commonly experience. In the present research we demonstrate that receiving a social treatment from one individual has implications for how the recipient of the treatment reacts toward other people in subsequent interactions. Furthermore, we find that the outcomes of social treatment are often counterintuitive. For example, we show that ‘pay-it-forward’ (the notion that a person who is treated well by someone should be nice toward others and conversely, a person who is treated badly may treat other people badly in turn) does not always occur; in fact, consumers often behave in the opposite manner. We offer a general theoretical framework that integrates previously fragmented investigations of social treatment (e.g., flattery, Campbell and Kirmani 2000; threat, Heatherton and Vohs 2000; teasing, Keltner et al. 2001) and reformulate context-specific explanations in terms of underlying dimensions.

Two dimensions of social treatment (affiliation: friendliness vs. hostility; and relevance for self-assessment: high vs. low) are predicted to interact in influencing consumers’ behavior, and in particular consumers’ socially-elevating behavior (i.e. behavior that requires a personal sacrifice and enhances the welfare of another person by providing material or psychological benefit). Receiving friendly versus hostile treatment is hypothesized to increase, through positive affect, consumers’ likelihood to engage in socially-elevating behavior, but only when the treatment has low relevance for self-assessments. When relevance is high, social treatment’s friendliness influences both affect and perceived self-efficacy in society. Affect and social efficacy act as opposing forces, because self-efficacy in society is predicted to have a negative effect, decreasing socially-elevating behavior. Furthermore, this research argues that the role of social efficacy becomes more prominent when the salience of the need for social connectedness is increased. The proposed relationships are tested in three studies.

Study 1 used a scenario-based methodology to examine the impact of receiving a social treatment from one shopper on a consumer’s likelihood of helping another consumer pick up bags of scattered groceries. The social treatment was either compliment (friendly/high-relevance), small-talk (friendly/low-relevance), threat (hostile/ high-relevance) or grumble (hostile/ low-relevance). As predicted, in the case of low relevance the friendly treatment generated a higher likelihood to help than the hostile treatment. However, when social treatment was highly relevant, friendliness did not motivate consumers to be more helpful and in fact the opposite tendency was observed. Two follow-up experiments provided process evidence for affect and perceived social efficacy.

Study 2 used a field experiment to study how many people would pick up the tab for another shopper after receiving a social treatment. In the study each participant was given money to buy and consume products at a mall together with another participant (in actuality a confederate). During the purchase, the real participant received a social treatment from a customer standing behind them in the line-up. A significantly higher percentage of participants picked up the tab for the confederate after being treated with small-talk versus grumble. However, a significantly lower percentage of participants picked up the tab after being complimented versus threatened.

In study 3, also conducted at a mall, participants first received a task which primed either the need for social connectedness or the need for independence. They then made an individual purchase and were either complimented or threatened by a customer. When receiving cash back from the vendor, participants were overpaid by \$1. The dependent variable was participants' reaction to the seller. As expected, consumers primed with social connectedness were significantly more willing to return the dollar after receiving the hostile (versus friendly) treatment. However, this effect was eliminated when the need for independence was primed.

Overall, this research extends the literature regarding social influences on consumer behavior. We show that social treatment (i.e. how the influencer treats the influenced person) is important and can have far-reaching behavioral consequences.

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Beyond Informational and Normative Influence: Social Influence on Choice under Uncertainty

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People are highly susceptible to others' behaviors (Childers and Rao 1992). Such conformity has been explained as resulting from two deliberate processes: people conform to others either because they believe others' behavior to provide diagnostic information (informational influence) or because they desire to meet the expectations of their in-group (normative influence). In the current research, we argue that social conformity in choice (i.e., choice mimicry) can also occur as a result of automatic (System 1) processes. Specifically, we propose that others' choices act as automatic default options. Under uncertainty, when consumers do not have pre-existing preferences, they adhere to these default options.. This choice mimicry vanishes when consumers exert cognitive effort in making a decision.

In Experiment 1, we tested our basic premise that choice mimicry would occur under uncertainty but not under certainty (Sunstein and Thaler 2003). The experiment employed a 2 (prior choice: prior choice vs. no prior choice, between-subject) x 2 (product type: uncertain products vs. certain products, within-subject) design. All participants chose one tea bag from two Korean teas (which served as our uncertain products, as our participants could not read the labels) and from two English breakfast teas (certain products, as participants could read their labels). In the prior choice condition, participants followed a Caucasian confederate to the next room where the confederate first chose one tea from each set of tea bags and left the room. Participants then chose one certain and one uncertain tea bag in private. In the no prior choice condition, participants did not observe another participant's choices before making their own choices. As hypothesized, choice mimicry differed across conditions. 79% chose the Korean tea that was also chosen by the confederate compared to 56% who chose this tea in the no prior choice condition ($\chi^2(1) = 4.66, p < .05$). No choice-mimicry was observed for English teas (58% vs. 51% in control, $\chi^2(1) = .35$). Post-choice ratings revealed that participants did not appear to mimic the confederate's choice under uncertainty because they believed that she was more knowledgeable as participants did not think that they would enjoy the Korean tea that they chose more than the Korean tea that they did not choose. However, participants thought they would enjoy the English tea that they chose more than the English tea that they did not choose. Thus, the observed choice-mimicry under uncertainty is not due to informational influence whereby participants believe that the confederate's choice conveys information about the chosen options' utility.

In Experiment 2, we tested whether the observed choice mimicry in Experiment 1 was due to normative influence. If normative influence causes mimicry under uncertainty, participants should be more likely to mimic the confederate's choice if the confederate is present than absent while making their choice. To serve as a baseline, participants in a control condition chose a tea without observing the confederate's choice. Consistent with Experiment 1, more participants chose the Korean tea that was chosen by the confederate when the confederate was absent than in the control condition (80% versus 48%, respectively, $\chi^2(1) = 3.86, p < .05$). This pattern, however, was reversed when the confederate was present (17% vs. 48%, respectively, $\chi^2(1) = 4.18, p < .05$). These results suggest that normative influence, which would have predicted *more, not less* choice mimicry in the present condition cannot account for this form of choice mimicry.

Experiment 3 serves as a direct test of our default account for the observed choice mimicry in Experiments 1 and 2. If the confederate's choice serves as an automatic default option, choice mimicry should be reduced when participants have to justify their choice, as they should be unaware of why it is the default option (Nisbett and Wilson 1977). Experiment 3 employed a 2 (justification: justify choice vs. no justification, between-subject) x 2 (prior choice: prior choice vs. no prior choice, between-subject) x (product type: uncertain products vs. certain products, within-subject) design. In the justify-choice condition, participants were told that they would need to justify their choices by providing reasons for their choice. In the no justification condition, participants received no instructions about justifications. We replicated choice mimicry for uncertain products in the no justification condition (83% vs. 56% in control, $\chi^2(1) = 5.98, p < .01$). As hypothesized, choice mimicry did not occur when participants had to justify their choices (56% vs. 53% in control). No choice mimicry was found for certain products. If choice mimicry is an automatic process that does not require effort, participants who make a choice after witnessing the confederate's choice should think of fewer reasons than those who make a choice without witnessing the confederate's choice. Consistent with this prediction we found that for uncertain products, participants who made a choice after observing the confederate's choice thought of fewer reasons than did participants in the control condition. Furthermore, participants were unaware of the impact of the confederate's choice on their own choice, as none of the participants listed the confederate's choice as a reason for their choice.

Experiment 4 uses a different method to test if mimicry instills a choice default. The tendency to automatically choose a default option should decrease the higher the stake in the outcome. After pretesting to find high and low stakes situations, we tested this hypothesis in a 2 (stake of choice: high (choose Korean crackers and eat them in the lab) vs. low (choose Korean crackers to take home) x 2 (prior choice: prior choice vs. no prior choice) between-subject design. As in the previous studies, we observed choice mimicry in the low-stake conditions (78% vs. 45% in control, $\chi^2(1) = 6.36, p = .01$), however, no choice mimicry was observed in the high stake conditions (41% vs. 48%)

Concluding, our current research demonstrates that choice-mimicry not only occurs due to deliberate processing but can also occur because consumers automatically treat others' choices as defaults when they are not willing (or able) to exert mental effort to decide for themselves.

After the “Like” Button: Exploring the Effects of Mere Virtual Presence on Brand Liking and Choice

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The rise of social media has empowered consumers to publicly demonstrate their affinity for brands in previously impossible numbers. For example, as of spring 2010, Starbucks has been “liked” by 12.8 M Facebook fans, Coca-Cola’s adherents number 10.8 M, and Target has amassed a total of 1.6 M supporters. We focus on one key aspect of such online social forums: the information they easily provide about the identity of other product users or “fans”. While traditional perspectives such as social influence theory would predict that “mere virtual presence” created through incidental exposure to other fans would have negligible effects, we show that, in fact, its influence is substantial: Observing other products supporters via social media can resolve ambiguity regarding the range of target market for a given product. The way in which this ambiguity is resolved, in turn, has a substantial impact on potential new consumers’ response to the brand.

Study 1 compared participants’ liking for an unknown brand when they observe fans that are similar to themselves, fans that are dissimilar to themselves, a mix of both similar and dissimilar fans, or when they observe no identifying information about fans (i.e., when fan’s identities are left ambiguous). We also captured perceptions of how much the participant believes that they have in common with the typical buyer of the target brand. Importantly, in study 1 and all subsequent studies, we hold product and brand information objectively constant.

Participants were asked to view an excerpt from a simulated version of a real brand’s (Roots clothing) Facebook page and respond to the dependent measures. The only difference across the conditions was that the pictures of the six “fans” shown were either similar, a mix of similar and dissimilar, or dissimilar to the participant or no pictures were shown (i.e., fans were ambiguous). Participants in the mixed fans condition liked Roots ($M = 4.75$) as much as participants in the ambiguous fans ($M = 4.48$) and similar fans conditions ($M = 4.74$), $F(1, 109) = 1.12, p = .29$. Participants in the ambiguous fans and similar condition also liked Roots clothing an equal amount, $F(1, 109) = 0.30, p = .58$. Roots clothing was liked significantly more in the no fans and similar condition than in the dissimilar condition ($M = 3.78$), $F(1, 109) = 4.89, p < .05$, however. These effects on brand liking were completely mediated by inferences regarding inferred commonality with the typical Roots shopper.

Study 2 used a similar experimental setup, but replaced the “no fans” ambiguous condition with a new ambiguous condition in which generic silhouettes were shown, in order to rule out the possibility that the absence of any pictures raised skepticism in the prior study. In addition, we collected perceived attractiveness ratings for the fans whose pictures were shown, to address the alternate explanation that attractiveness, not perceived similarity, drove our results. Finally, we also collected a measure of purchase intention. Results replicated study 1’s findings and also showed that attractiveness ratings did not mediate effects on brand liking or purchase intentions.

Study 3 employed a within-subjects design where all participants saw the Facebook pages for what were supposedly three distinct clothing stores, called Store A, Store B, and Store C in the stimuli. The clothing items shown for each store were pretested to be equally liked by the participant population so that any differences observed in participants’ responses to the three stores would be driven by the differences in fans shown, which were either similar, dissimilar, or the same silhouettes used in study 2 (similar and dissimilar fans were the same fans used in both prior studies). The same clothing set was always shown with the same store name, but whether this store name and clothing set was paired with similar, dissimilar, or ambiguous fans was counter-balanced.

Consistent with studies 1 and 2, participants were more likely to choose the store with the ambiguous or similar fans than the store with the dissimilar fans ($\chi^2 = 52.40$ (1, 130), $p < .0001$). However, we also found that participants were more likely to choose the store with the similar fans than the store with the ambiguous fans ($\chi^2 = 12.89$ (1, 130), $p < .001$), which did not align with our prediction that ambiguous and similar fans evoke the same consumer response. Instead, it appears that in a within-subjects context where participants can see multiple types of fan sets, there is a cost to ambiguity compared to similarity, although ambiguous fans still lead to greater store choice than dissimilar fans. This cost of ambiguity is also reflected when one examines the frequencies of store choice; 76 participants chose the store with the similar fans, 37 chose the store with the ambiguous fans, and 18 chose the store with the dissimilar fans. We also found similar patterns of effects for measures of purchase intentions and plans to continue the relationship with the brand through later communications. A fourth study is currently underway which will identify boundary conditions for these effects.

Taken together, these results provide important theoretical and managerial insights. Importantly, we show that even the “mere virtual presence” of consumers in online forums has substantial impacts on brand liking and choice. We also show that diversity among consumers appears to create equivalent effects as does homogeneous similarity, and that the effects of viewing ambiguous fans depends on whether a single or multiple brands is under consideration. As such, our work suggests that managers may wish to alter the way in which a brand’s fans are displayed, depending on their market’s heterogeneity or shopping habits.

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iPhone for Friends, Volvo for Family: The Network Signaling Power of Products

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People use different products to signal desired identities to different social networks – iPods to impress their friends, briefcases to impress their employers. We suggest that this behavior causes those products to become linked to specific social networks, such that mere exposure to products can prime different social networks, making some relationships more salient than others. We furthermore explore how people perceive the closeness of these salient networks as a possible mechanism to examine subsequent WOM intentions. Previous research has demonstrated that situational and environmental cues or primes can activate associated representations, making them more accessible (Berger and Fitzsimons 2008; Higgins, Rholes, and Jones 1977). As priming a given construct leads to the activation of related constructs in memory, it can also have impact on the perceptually-related objects, and furthermore on the product choice and evaluations (Lee and Labroo 2004; Whittlesea 1994). In this project, we use products belonging to different categories as our primes, and explore whether exposure to these primes makes certain social networks more accessible.

The literature on goal instrumentality showed that active goals lead to the activation of different relationship partners, specifically of those who are goal congruent (e.g., Fitzsimons and Shah 2008). We, however, look at the salience of relationship partners in relation to product categories rather than personal goals or motivations. Moreover, we argue that the products as primes influence social perceptions and as a result offer people’s changing perceptions of network closeness as a mechanism for following WOM behavior. To examine this linkage of products to networks to WOM, we ran three studies.

In Study 1, we investigated whether exposure to products belonging to various categories make related networks more salient than others in the minds of people. One hundred and thirty-five participants were randomly assigned to one of four conditions: *family*, *friends*, *co-worker priming* and *control* conditions where they were presented with products belonging to family, friends, co-worker categories respectively, and asked to indicate their preference in a set of four. Those in the *control condition* didn't see any products. Subjects went through a total of twenty trials, viewing eighty different options. Afterwards, participants were asked to write down the initials of the first five people that came up to their mind and subsequently, instructed to indicate their relationship to each of the five people they listed.

The dependent variable was the number of family members, friends and co-workers listed in each of the four conditions. Our results showed that participants in the *family priming* condition listed significantly more family members than those in the *friends priming*, *co-worker priming*, and *control* conditions. These results were parallel for the *friends* and *co-worker priming* conditions, such that when primed with *friends* related products, people thought of their friends more so than when they saw *family* or *work* related products. Finally, those people in the *co-worker priming* condition reported significantly more number of colleagues than the participants in the other conditions.

Having shown the increase in the salience of networks as a result of being exposed to related products, next we wanted to examine whether exposure to products from different categories impacts people's perception of network closeness, and as a result who they think of passing on information to. In Study 2, one hundred and eight participants were again randomly assigned to one of the four (*family*, *friends*, *co-worker priming* or *control*) groups and exposed to the same product priming tasks as in Study 1. After the priming tasks, participants were randomly presented with five print ads and asked "Who would you forward this ad to?" With this question, we aimed to capture word of mouth intentions. Participants were furthermore instructed to specify the relationship of the person.

We predicted that the priming categories would impact who participants listed as possible recipients of print advertisements. In line with our previous findings, participants who were in the *friends priming* condition listed more friends who they would forward the ads to than those in the *family priming*, *co-worker priming*, and *control* conditions. Our results again held in the *family* and *co-worker priming* conditions as participants in those groups listed many more family members and co-workers, respectively, than those in the other conditions.

So far, we showed that exposure to different product categories increases salience of category-related network members, who are then considered more accessible in word of mouth considerations. Next, we tested whether product categories influenced the salience of network members in WOM considerations via changing the perception of network closeness. In Study 3, one hundred and twenty seven participants were randomly assigned to *family*, *friends* or *no priming* conditions where the products task was the same as in the previous two studies. Following the priming task, they were shown three products they had not seen before. Participants were presented with announcements about a new model of each of the three products (printer, MP3 player, coffee maker) and were asked to indicate three people to whom they thought of passing this info. In order to understand whether the WOM intentions were mediated by network closeness, we asked subjects how close they perceived their family and friends networks.

Replicating our previous findings, participants in the *family priming* condition listed significantly more friends and those in the *friends priming* condition significantly more friends when asked about their WOM intentions than the listings in the other conditions. Additionally, our results showed that people in corresponding priming conditions feel their networks to be both closer to themselves and also closer to each other. Further analysis showed that the relationship between *family priming* and preference for sharing

information with family members was mediated by the perception of family network closeness. Perception of network closeness was also a significant mediator for the *friends priming* condition.

These experiments provide insights about how products can influence people's perception of and interaction with various networks they are a part of. Our investigation demonstrates that the self can be linked to specific networks, which can subsequently alter WOM intentions. We hope to engage in further conversations with SCP members about extended implications of our findings as well as new research directions.

2.6 Individual Papers: Nonconscious and Neural Effects on Buying

Room: Maple Room A

Chair: Darlene Walsh, Concordia University

Familiarity Hijack: Imperceptible Celebrity Facial Cues Influence Trust and Preference

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Recent technological advances have enabled researchers interested in the automatic evaluation of facial cues to digitally blend the faces of different individuals. For example, Bailenson et al. (2009) morphed the faces of politicians with the faces of experimental participants in a ratio of 65% politician, 35% participant. With this ratio, participants still believed they were viewing unaltered pictures of the politicians. However, attitudes toward the composites revealed consistently stronger liking for the morphed images than the original politicians.

This fascinating finding could be explained by a number of theoretical mechanisms. First, Bailenson et al. suggest perceptions of similarity drive their results, which would be consistent with research on phenotype matching, which is the ability of organisms to detect the outward manifestations of their own genotype (Hauber and Sherman, 2001). Second, as Bailenson et al. concede, the use of participants' own faces confounds similarity (to the self) with familiarity more generally, and the mere exposure and perceptual fluency literatures (Zajonc, 1968) would suggest that familiarity alone could underlie the observed results. Third, participants might have actually recognized themselves in a nonconscious fashion. Such implicit recognition could occur on two possible levels. First, it might have been sufficient to enable participants to automatically access specific trait information from memory; since most individuals are positively self-disposed, this could explain the positivity toward self-morphed images. Second, an intermediary level of implicit self-recognition might have occurred, sufficient only to access a basic approach/avoid judgment. This latter possibility is consistent with work in neuroscience that suggests the brain is hardwired to automatically provide broad valence-based evaluations of agents prior to interacting with them (Amaral 2002).

The current work was envisaged to begin to tease these competing explanations apart. In particular, to address the similarity vs. familiarity confound, we explore the effects of morphing the faces of celebrities (which are familiar but not similar to our participants) with unfamiliar faces. Of note, the question as to whether a similarity or familiarity mechanism underlies morphing effects has potentially important implications for marketers. While morphing customers own faces into marketing materials is probably not scalable to the mass market (and may cross privacy lines), doing so with celebrity images has considerably more potential.

In Study 1, 109 participants rated the trustworthiness of two faces on a -5 to +5 scale. We focused on trust because it is a key component of source credibility. Face one (“Tiger-morph”) was a stock model face morphed with 35% of the face of Tiger Woods, while face 2 (“control-morph”) was the same stock face morphed with an individual of similar age and attractiveness to Woods. We used a morphed control image to ensure that any effects could not be attributable to the effect of morphing alone, since composite faces (which are more symmetrical) are perceived as being more attractive than their source faces (Langolis and Roggman, 1990). Both morphed images were then pretested to ensure they were perceived as being similarly attractive.

Results indicated that the Tiger-morph was perceived as being more trustworthy ($M = 1.75$) than the control-morph ($M = 0.95$, $t(107) = -2.2$, $p < .05$). This result pertained despite no participants expressing recognition of Tiger in the composite image (this lack of conscious recognition also held in both subsequent studies). While inconsistent with a pure similarity mechanism (since Woods is not on average similar to our participants), this result is consistent with both the familiarity and implicit recognition (full or intermediary) accounts. In study 2 we explored the full implicit recognition account.

In study 2, 179 participants rated the trustworthiness of either a George Bush-morph, a control-morph (morphed with a face of similar age and attractiveness to George Bush), or the original model face. Participants subsequently rated the trustworthiness of George Bush on the same 11-point scale. Consistent with study 1, we observed an overall effect of face condition on reported trust ($F(2, 176) = 4.56$, $p < .02$). A planned comparison revealed that this effect was driven by the Bush-morph being rated as more trustworthy ($M = 2.16$) than either the unaltered model face ($M = 1.27$) or the control-morph ($M = 1.30$; $t(176) = -3.02$, $p < .01$). However, this effect did not appear to be driven by implicit recognition, as ratings of trustworthiness in the Bush-morph were uncorrelated with actual (consciously held) ratings of the trustworthiness of George Bush ($r = .07$, $p = .62$).

With studies 1 and 2 ruling out the similarity and full implicit recognition accounts, study 3 pit the fluency vs. intermediary implicit recognition accounts whilst also exploring a more marketing relevant DV, namely likelihood to buy from a salesman (-5 to +5 scale). 319 participants were assigned to either a Tiger-morph or control-morph condition. The data was collected in two tranches, both before and during the Tiger Woods scandal.

Results indicated no main effect of face presented or timing, but a significant interaction between the two ($F(1, 318) = 12.01$, $p < .001$). While pre-scandal participants indicated they were more likely to buy from the Tiger-morph ($M_{\text{Tiger-morph}} = 1.46$, $M_{\text{control-morph}} = 1.04$), this pattern reversed itself post-scandal ($M_{\text{Tiger-morph}} = -.11$, $M_{\text{control-morph}} = 1.02$). Thus, despite a complete lack of conscious recognition of Tiger Woods, reported likelihood to buy from the Tiger-morphed salesman appeared to be influenced by the precipitous decline in Woods’ reputation. This result is hard to reconcile with a pure fluency account as Tiger’s image dominated media during the scandal (leading to many exposure repetitions) which should have only served to increase processing fluency of the Tiger-morph. However, it is consistent with the idea that the scandal acted as an evaluative conditioning mechanism (Houwer, Thomas, and Baeyens 2001) sufficient to change broad valence judgments of Tiger, and with implicit recognition of him then being sufficient to access this valence judgment.

We conclude by noting that while further work on the exact mechanism remains to be done, the possibility that markets can influence consumer behavior by digitally manipulating the familiarity of the faces of otherwise unfamiliar decorative models is highly intriguing.

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Can I Reduce My Errors without Knowing? The Effect of Nonconscious Priming of a Target Attribute on Judgmental Biases

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Attribute substitution (Kahneman & Frederick, 2002, 2005) has been used to explain why people rely on heuristics and show biases. Attribute substitution occurs when people substitute a target attribute that is necessary to make a rational judgment with a heuristic attribute which comes more readily to mind. Substituting the target attribute with the heuristic attribute inevitably introduces systematic errors because these two attributes are different. What would happen if the target attribute is more accessible by nonconsciously priming words related to the target attribute? We expect that people are less likely to show the errors because the target attribute is made more accessible. The purpose of the present research is to examine whether and how nonconscious priming of a target attribute can reduce judgmental biases and whether this process elicited by the nonconscious priming requires cognitive resources, which implies the involvement of reasoning.

Experiment 1 examines whether the nonconscious priming of a target attribute can reduce judgmental biases by using the Kirkpatrick and Epstein (1992)'s jelly beans task. This task shows the *ratio-bias phenomenon* which refers to "the perception of the likelihood of a low-probability event as greater when it is presented in the form of larger (e.g., 10-in-100) rather than smaller (e.g., 1-in-10) numbers" (Pacini & Epstein, 1999, p303). This phenomenon is attributed to a tendency to focus on the frequency of the numerator (i.e., heuristic attribute) instead of the overall probability (i.e., target attribute). Selecting one of two trays that offer equal probabilities is, in itself, not a judgmental error. However, the preference for a 9% over a 10% probability is (Denes-Raj & Epstein, 1994).

In experiment 1, participants were asked to choose one of two trays from which they could participate in a lottery where they could win \$50 if they drew a red jelly bean: tray A (10% tray) containing 1 red and 9 white beans and tray B (9% tray) containing 9 red and 91 white beans. Since the target attribute is the 'objective probability' of drawing a red bean, if participants choose a tray based on the target attribute instead of the number of red jelly beans, they should be more (less) likely to choose the 10% tray (the 9% tray).

Participants were randomly assigned to either a control or a target attribute priming condition. The priming task was disguised as a perception task. Words related to the objective probability (e.g., probability, proportion) were *subliminally* (i.e., 20 ms) shown to participants depending on the conditions. The primed words were masked by a string of letters (e.g., addick). Participants were asked to identify whether each string of letters presented on a computer screen contained two vowels or not. After finishing the perception task, participants were asked to complete the next unrelated task—the jelly beans task. They were asked to indicate their own preference between the two trays on a five-point scale. Next, they were asked to choose which tray they wanted to draw from for a real drawing.

We found significant main effects of attribute priming in self-preference scale and tray choice. Participants primed with the target attribute were more likely to prefer the correct 10% tray than those who were not primed. Consistent with this result, participants primed with the target attribute chose the 10% tray significantly more than those who were not primed.

Experiment 2 extends the findings in Experiment 1 to a different judgmental bias, base-rate neglect by using an analogue of the engineer-and-lawyer problem (Kahneman & Tversky, 1973). In the engineer-and-lawyer problem, people are given the base rate of engineers (e.g., 30 engineers out of 100 individuals) and the description of a person (e.g., typical characteristics of an engineer such as having no interest in political and social issue and spending time in home carpentry). Although the base-rate of engineers in a given

sample is very low (e.g., 30%), people's estimation of the probability that a person is an engineer is much higher (e.g., 80%) than the base rate due to their tendency to rely on the description of the person rather than the base rate. The base-rate neglect in probability judgment is problematic because it induces people to violate the fundamental Bayesian rule of statistical prediction.

The procedures in experiment 2 are similar to those in experiment 1. We used Betsch et al. (1998)'s professor-and-non-professor item. Participants were randomly assigned to either a control or a target attribute priming condition. After finishing the same priming task, participants were given the description of the professor-and-non-professor item with other filler questions. They were told that this description was one of a survey sample which contained 17.6 % professors and 82.4 % non-professors. Their task was to rate the probability that the person is a professor given the description of the person and the base rate.

We found that participants primed with the target attribute were more likely to estimate the probability to be lower (closer to the base rate of professors) than those who were not primed. This finding provides further evidence that nonconsciously priming the target attribute reduced the judgmental bias.

Experiment 3 examines whether the process of reducing judgmental biases requires the involvement of System 2 by manipulating cognitive load. Since the processes of System 1 are automatic and effortless whereas those of System 2 are slow and effortful, if System 2 is involved in the process of reducing the biases, a high cognitive load should interfere with this process which is facilitated by nonconsciously priming the target attribute.

The procedures in experiment 3 are similar to those in experiment 2 except the manipulation of cognitive load. Participants were randomly assigned to a 2 (target attribute priming: no priming vs. target attribute priming) x 2 (cognitive load: low vs. high load) between-subjects design. We manipulated cognitive load by asking participants to memorize either a 2- or 9-digit number prior to the professor-and-non-professor item. To rule out the alternative explanation of mood effect, we measured their mood using PANAS scale (Watson, Clark, & Tellegen 1988).

Our manipulation check was successful in that participants found it more difficult to memorize the 9- than the 2-digit number. In the low cognitive load conditions, participants primed with the target attribute were more likely to estimate the probability to be lower (closer to the base rate) than those who were not primed. However, in the high cognitive load conditions, participants' probability estimates were equally high (far from the base rate). This finding implies that cognitive busyness impairs the process of reducing the bias (i.e., the base-rate neglect). We ruled out the alternative account by showing no differences in the PANAS scale as a function of cognitive load. The findings of experiment 3 suggest that System 2 is involved in the process of reducing judgmental errors.

These studies provide evidence for the idea that priming the target attribute *nonconsciously* can reduce judgmental biases. We believe that this research is important for two reasons: First, it contributes to extend our understanding of the underlying mechanism for reducing the judgmental biases by demonstrating that not only explicit/conscious methods but also *implicit/nonconscious method* (i.e., priming a target attribute) can reduce the biases. Second, it shows that the process of reducing the biases requires cognitive resources, which implies the involvement of System 2.

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The Shopping Brain: Neural Correlates of Buying under Different Promotional Formats

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Interest in neuroeconomic methods to study buying behavior underscores attempts to understand the processes by which consumers make these decisions. For example, using functional magnetic resonance imaging (fMRI), Knutson et al. (2007) showed that excessive prices were linked to increased insular activity and decreased activity in medial prefrontal regions. These findings confirm the interrelationship between affect factors and unfair prices that has been proposed elsewhere (Xia, Monroe, & Cox, 2004), and are largely consistent with Bechara and Damasio's (2005) somatic marking hypothesis that our brains map anticipated outcomes of purchases from interoceptive emotional signals prior to decision making, which guides choice. Concurrently, the metacognitive experiences literature suggests that interoceptive signals guide choices as early as perceptual processes (Reber, Winkielman, & Schwarz, 1998). So-called fluency signals, which are hedonically marked signals of processing ease, have been shown to then influence later judgments in which they are non-integral (Winkielman, Schwarz, Fazendeiro, & Reber, 2003).

Capitalizing on its temporal sensitivity, we utilized the event-related potentials (ERP) technique to dissociate conceptual and perceptual processes as high and low-fluency processing consumers made buying decisions for products under percentage-promotion formats or directly at offer price. Our low fluency group, those high in math anxiety (hereafter High MA), was contrasted with a high fluency group, those low in math anxiety (Low MA). Past research has shown that High MA results in reduced processing fluency, though accuracy is often left intact (Ashcraft & Kirk, 2001). Whereas past ERP studies of economic transactions have shown effects on reward processing magnitude and valence (e.g., Yeung & Sanfey, 2004), this has not been applied directly to consumer behavior.

We utilized data from forty introductory business students. These participants were paid volunteers who were placed into High MA and Low MA groups according to the Abbreviated Math Anxiety Scale (AMAS; Hopko et al., 2003) via an elaborate screening process. Data was recorded from 32 Ag/AgCl EEG electrodes fitted to the participants' scalps and was collected in single-subject experimental sessions. We analyzed neural responses to consumers' evaluations of the corresponding prices of 50 products presented to them. Prices were percentage promoted (\$13.13, 20% off) or not promoted. Participants were instructed to evaluate the prices presented to them and then to make choices. Because participants would not have enough time to ascertain exact answers we asked them to estimate after-discount prices within the promotion condition. Past research has shown that consumers do this spontaneously (Morwitz, Greenleaf, & Johnson, 1998). We instructed participants that they should only buy if they felt they could not get a better deal elsewhere locally relative to the screen offer. Off-line, we extracted several well researched and validated ERP components, which we analyzed statistically using SPSS 18.

Of central interest to us were the P200 and frontal N400 (FN400) ERP components during price evaluation and the P3 component during buying. P200, which is a positive deflection in the ERP waveform peaking at about 200 ms after stimulus presentation over the anterior scalp, has previously been linked to assessments of confidence (Paynter, Reder, & Kieffaber, 2009). A negative deflection in the ERP waveform peaking at about 400 ms after stimulus presentation, FN400 also peaks over the anterior scalp and has been linked to activation of conceptual processing routines (Voss & Federmeir, 2010). Likely the most widely reported on of the studied components, P3 is a robust and widely researched ERP component associated with complex cognitive processing. It is a positive component which peaks at about 300 ms (sometimes later) post stimulus presentation and which is widespread over the scalp. Past research indicates that P3 may be modulated by emotional or motivational significance (Nieuwenhuis, Aston-Jones, & Cohen, 2005).

Our results indicate that math anxiety interacts with promotional format to affect consumer purchases. For High MA, stronger conceptual activation as indexed by FN400 during price evaluation leads to non-buys under no promotions and buys under promotions. High MA consumers consequently seem to naïvely infer that complex processing indicates a bad or unascertainable price under no promotions yet a good price under promotions. A larger P200 to buys versus non-buys under no promotions among High MA bolsters our argument and suggests that a rapid assessment of price evaluation confidence under promotion drives price evaluation and ultimately buying decisions for High MA consumers. In contrast, strong conceptual activation only when needed under promotions reflects a more deliberative buying approach among Low MA. Thus, these findings echo recent work by Labroo and Kim (2009) on the “instrumentality” heuristic or the notion that during goal pursuit effort enhances subjective evaluation, but demonstrates neurally that this instrumentality effect emerges as early as the start of effortful pursuit enactment (i.e., at < 400 ms). Whether effort itself is required to achieve this effect is an open and unanswered question. These findings also raise questions about the causal emergence of subjective preference from positive feelings derived from an easy task – i.e., the fluency perspective. Knutson et al. (2007) argued that “pain of paying” drives consumer choice, and not subjective feelings of ease as purported by fluency theorists. This view is consonant with our finding that among our lowest fluency group (i.e., High MA), the strongest ERP findings of FN400 enhancement was tied to non-buys.

Significant only under no promotions, we observe opposite-pattern P3 effects. Among High MA, P3 is larger to buys, perhaps indexing expected reward when buying as they tend to buy only when confident. Absent an earlier rejection signal similar to High MA at FN400, Low MA elicit a larger P3 to non-buys, possibly a “painful pay” cue. Thus, P3 offers evidence Low MA might be more driven by painful paying when buying whereas High MA might be at least as sensitive to positive fluency feelings as to painful pay cues (e.g., FN400 to non-buys). Finally, we interpreted our P3 non-findings under promotions as due to cognitive load, and we explicitly call for future research to explore this further.

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Do Retail Store Brands Sate or Strengthen Consumer Goals? Examining the Influence of Goal Priming and Exposure to Retail Store Brands on Consumer Preference

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Understanding how brands can nonconsciously influence the decision-making process has recently become a hot topic in consumer behaviour (e.g., Bargh 2002; Fitzsimons, Chartrand and Fitzsimons 2008; Ferraro, Bettman and Chartrand 2009; Sela and Shiv 2008). For example, one set of researchers has found that retail store brands can activate consumer goals and influence consumer’s behaviour, all without the consumer’s awareness (Chartrand, Huber, Shiv and Tanner 2008). Specifically, participants subliminally primed with thrifty retail brands such as *Wal-Mart* were more likely to choose thrifty products relative to more prestigious products. Similarly, participants subliminally primed with prestigious retail brands such as *Tiffany* later preferred prestigious products over thrifty products.

Based on Chartrand et al.’s (2008) research, we know that subliminal exposure to retail store brands in isolation of other consumer goals can activate consumer goals and result in goal-consistent behaviour. However, we do not know the influence of retail store brands on goals and choice when consumers already hold a goal, such as to be thrifty. In other words, we do not know the influence of a retail store brand on choice when thrifty consumers are exposed to a thrift retail store brand (e.g., *Wal-Mart*) – does the retail store

brand maintain or strengthen the activation of the thrift goal, leading to thrifty behaviours? Or does it instead satiate the thrift goal resulting in less thrifty behaviours? And what about thrifty consumers that are exposed to a prestigious retail store brand such as *Tiffany* or *Holt Renfrew* – since the retail brand store cannot satisfy the thrift goal, does it cause an even stronger urge to behave thrifty? We sought to answer these questions by testing 1) whether retail store brands can satiate a previously primed goal in situations where the retail store brand and the primed goal are similar; and 2) whether retail store brands that obstruct a previously primed goal results in an even stronger desire to behave in a goal consistent manner.

To examine these issues, seventy-one participants were randomly assigned to one of four conditions in a 2 (*goal prime*: thrifty vs. neutral) x 2 (*retail store brand*: thrifty vs. prestigious) between-subjects experiment. We first manipulated goal prime using a scrambled-sentence task (Chartrand and Bargh, 1996), where participants were asked to make several four-word sentences from five words (e.g., him cat often they meet”, where the correct sentence is “they meet him often”). For participants randomly assigned to the neutral-prime condition, all the words were neutral. For participants randomly assigned to the thrifty-prime condition, words that invoked thrifty behaviours were embedded in the list.

We then exposed the participants to retail brands that would either satisfy or obstruct the goal prime. To keep the exposure nonconscious, we used a visual acuity task (Bargh and Chartrand 2000; Chartrand et al., 2008), where participants were required to recall the total of numbers flashed on the center of the screen. Participants were also told that random flashes would occur throughout the experiment, and that as soon as they saw the flash, they were to indicate whether the flash occurred on the right side of the screen by pressing the “/” key, or the left side of the screen by pressing the “z” key. Each flash actually consisted of the retail brand prime for 60 milliseconds followed by a backwards mask. Participants in the thrifty retail store brand condition were primed with large, discount department stores such as *Wal-Mart*, whereas participants in the prestigious retail brand condition were primed with large, upscale department stores such as *Holt Renfrew*.

Finally, the participants were told to imagine that it is time to throw out their cotton crew socks and buy new ones, and that they are considering the following two options: Nike socks priced at \$5 for one pair or Hanes socks prices at \$6 for 2 pairs. Participants indicated their preference on a 7-point scale, where the scale is anchored by 1/strong preference for Nike socks, 4/indifferent, and 7/strong preference for Hanes socks. Based on previous research (Chartrand et al. 2008), the pair of Nike socks is the more prestigious option, and the pair of Hanes socks is the more thrifty preference (Chartrand et al. 2008).

A two-way ANOVA with preference as the dependent variable, and goal prime and retail store brand as the independent variables, revealed a significant interaction ($F(1, 67) = 5.86, p < .01$). Specifically, when participants were primed with the thrift goal and then later exposed to thrifty retail brands, they preferred the more prestigious product ($M = 3.56$) relative to participants who were first primed with a neutral goal and then exposed to thrift retail brands ($M = 5.53; t = -2.91, p < .01$). This suggests that a retail store brand can satiate consumer goals.

However, when participants were primed with a thrift goal and then later exposed to prestigious retail brands, they later preferred the thriftier product ($M = 6.00$) relative to those who were first primed with a neutral goal and then exposed to prestigious retail brands ($M = 4.26, t = 2.76, p < .01$). This suggests that when a retail brand prime obstructs an initially primed goal, the desire to behave in a goal-consistent way intensifies.

Recent research has found that retail brands in isolation of other consumer goals can behave like goal primes (Chartrand et al. 2008). However, as our research shows, if consumers already have a goal in mind, retail brands also have the ability to satiate, or strengthen,

the goal. Although this research adds to the theoretical understanding of how brands can influence consumer behaviour, it is not clear whether these results apply to all consumer goals. For example, does a prestigious retail store brand, like Tiffany's or Holt Renfrew, satiate a prestige goal? If we assume that prestige is a high-level goal, then perhaps exposure to a prestigious retail store brand is not enough to satiate the high-level goal. Another interesting avenue to consider is how this applies to understanding self-control.

For example, can exposure to Subway restaurant cause dieters to break their diet? These are questions that we are currently trying to answer.

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2.7 Individual Papers: The When, Where, and Why of Judgment and Choice

Room: Maple Room B

Chair: Julian Saint Clair, University of Washington

When Surprising Consumers with Unexpected Benefits Backfires

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Surprising consumers with unexpected benefits leads to greater pleasure, than simply providing similar levels of (expected) benefits (Mellers et al, 1999). Also, unexpected gains provide greater pleasure than unexpected losses (Mellers and McGraw, 2001), indicating that greater the amount of unexpected benefits, the greater the pleasure. In this research, we argue that these results might not always hold. Although, in a consumption context, provision of unexpected benefits should lead to more positive perceptions of the seller, we posit that the above result is moderated by differences in the amount of benefit provided, with larger amounts of unexpected benefits not necessarily leading to more positive perceptions of the seller.

Specifically, we consider cases wherein (1) consumers purchase some item from the seller, (2) there is a post-purchase violation of the purchase contract, whereon (3) consumers are entitled to compensation from the seller. For example, luggagepros.com promises the lowest prices, and offers a low-price guarantee (LPG) to back this promise. If consumers find a lower price within 30 days of purchase, then luggagepros.com promises LPG compensation of 115% of the price difference.

The question we examine is whether adding unexpected benefits to such compensation has positive effects on consumers' subsequent perceptions about the seller. Consistent with past literature, adding small amounts of unexpected benefits to the compensation should have a positive impact on beliefs about the seller. However, Brehm and Cole (1966) indicated that receiving favors leads to two competing feelings in the receiver – the desire to reciprocate, and the (competing) desire to not reciprocate and preserve freedom of action. Hence we argue that adding large amounts of unexpected benefits prompts consumers to (also) think about what exactly is the seller's rationale for providing the unexpected benefits (e.g. are these unexpected benefits merely a mechanism to prompt future

purchase?). In turn, such thoughts dampen the positive effects of providing unexpected benefits, potentially reduce trust in the seller, and thus the overall impact of providing unexpected benefits on beliefs about the seller might not be positive.

Participants ($N=269$ undergraduates) were randomly assigned to one of five conditions. Participants were told that they had purchased a computer from a retailer. This retailer offered an LPG, i.e. a promise that if consumers subsequently found lower market prices for the purchased product, they would get LPG compensation. Depending on the condition they were in, participants were a priori promised different levels of LPG compensation.

Participants were then told that, after the purchase, they learnt that a friend had purchased the same computer for a lower price. Participants were told that they went back to the retailer and immediately received a refund. Depending on the condition they were in, participants received different levels of refunds.

In all cells, participants received at least what they were promised. In cells (iv) and (v), participants also got (either small or large amounts of) surprise benefits.

In cells (ii) and (iv), participants post-facto received same overall LPG compensation. But in cell (iv), participants were a priori promised less than consumers in cell (ii), but subsequently got not only what was promised, but also got small surprise benefits.

In cells (iii) and (v), participants post-facto received same overall LPG compensation. But in cell (v), consumers were a priori promised less than consumers in cell (iii), but subsequently got not only what was promised, but also got large surprise benefits. The two independent variables were (1) overall amount of LPG compensation, and (2) whether part of the LPG compensation was unexpected. We measured two dependent variables (DVs) (1) future purchase intentions (FUTURE PURCHASE), and (2) trust in the retailer (TRUST).

In Analysis 1, we compared cells (ii) – (v). The interaction between the two independent variables was significant ($F(1,213) = 5.35, p < 0.05$). Specifically, FUTURE PURCHASE was higher in cell (iv) than cell (ii) ($M=6.09$ vs. $M=5.58$; $t(264) = 1.92, p < 0.06$), indicating that incorporating a small surprise into the LPG compensation had a positive effect on beliefs about the seller. But FUTURE PURCHASE was not significantly higher in cell (v) than cell (iii) ($M=5.39$ vs. $M=5.79$; $t(264) = 1.39, p > 0.15$), indicating that incorporating a large surprise into the LPG compensation had no effect.

As suggested in Valenzuela et al. (2010), in Analysis 2, we also compared cells (i), (iv) and (v). First, we noted that FUTURE PURCHASE in cell (iv) was significantly greater than cell (i) ($M=6.09$ vs $M=5.43$; $t(264) = 2.43, p < 0.05$), indicating (again) that providing a small amount of surprise benefits had a positive effect on beliefs about the seller. Next, FUTURE PURCHASE was significantly lower in cell (v) than cell (iv) ($M=5.39$ vs $M=6.09$; $t(264) = 2.63, p < 0.05$), indicating that providing a large surprise in LPG compensation backfired, and had a negative effect on beliefs about the seller, and this was true despite those in cell (v) receiving LPG compensation which exceeded the LPG compensation received by those in cell (iv). Finally, the above result was fully mediated by differences in TRUST (mediation results available on request).

This research contributes to the literature on surprise, finding an interaction between (1) the presence of a surprise benefit, and (2) the amount of the surprise benefit. Specifically, providing larger amounts of unexpected benefits appears to backfire, and might not be beneficial to the retailer.

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When and Why People Delay the Search for Information

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In the present research we sought to clarify which situational factors (e.g., the nature of an upcoming event, timing of information retrieval) can temporarily suppress (vs. encourage) information search. We hypothesized that when potential negative information had the potential to interfere with an individual's future activities or events, he or she would temporarily avoid this information until after the activity or the event had ended. For example, if one believes that having definite negative knowledge about being infected with an illness could negatively influence one's upcoming vacation in Brazil (e.g., reduce pleasure or force rumination), one may want to postpone obtaining this information until after the trip.

Of course, one could also argue that *not having* information (i.e., maintaining uncertainty) may also hold negative consequences. In the example above, the individual might spend his or her time in Brazil ruminating about the possibility of being infected, thus spoiling the vacation. In such cases, individuals might prefer to quickly resolve uncertainty before engaging in future activities. We propose that when people weigh the costs of having definite knowledge versus the costs of ignorance, they incorporate *future events* into this equation. According to his or her future plans an individual determines whether uncertainty or certainty is worse. What is new about our perspective is the notion that a decision to search or postpone searching for information is influenced not only by the painful nature of the information but also by the potentially negative effects that this knowledge may have on *unrelated* future plans.

Overall, people may have good reasons to engage in information search. Learn from the information, use it to regulate negative emotions (Shani & Zeelenberg, 2007; Shani et al., 2009), avoid unpleasant uncertainty (Van den Bos & Lind, 2002), or satisfy curiosity (Loewenstein, 1994). Additionally, sometimes knowing something simply feels better than remaining uncertain (Sieff, Dawes, & Loewenstein, 1999). In fact, the drive to search for information is so strong that people are even willing to pursue information that is not useful for a decision at hand (Bastardi & Shafir, 1998; Tykocinski & Ruffle, 2003). Thus, in many cases avoiding negative information may be costly because uncertainty enhances negative feelings that people wish to alleviate (Frey, 1986).

If people are willing to search for information in order to regulate their negative feelings, is it also possible that they would sometimes avoid information for the very same reason? We propose that whereas people would generally be expected to search for reassuring information, even at the risk of finding the opposite, in situations in which people feel that having *definite knowledge* would hinder their ability to perform (i.e., enjoy a vacation, study for an exam), they may prefer to temporarily abandon information search and maintain their uncertainty. Thus, the decision to avoid or search for painful knowledge would rely on the *circumstances* under which the information is obtained (e.g., should one learn the results of an HIV test before a vacation or after returning?) and not only on how painful the knowledge is expected to be. Specifically, this decision should depend on the type of anticipated event (e.g., a vacation, an

exam, a painful medical procedure, a business trip), which may influence a person's confidence that he or she possesses the necessary resources to handle the negative knowledge (Linville & Fischer, 1991).

We conducted five experiments to examine how the circumstances under which information can be obtained are related to the decision to delay information search. In our experiments, participants were awaiting potential negative information and needed to decide between resolving uncertainty immediately before an upcoming event versus later.

Experiment 1A provides an indication for an evaluation process regarding whether or not one should search for potentially painful information (exam's results) before leisure time, depending on the level of ruminative thoughts expected when knowing and suspecting to have failed the exam. Experiment 1B provided initial behavioral indications for individuals' willingness to put off information search. Participants who were about to go on vacation rated themselves as better able to distract themselves from thinking about a potential failure, compared with participants who were about to begin a regular weekend. Thus, the former group was more inclined to postpone information search. Importantly, initial expectations to either pass or fail the exam had similar effects for the evaluation process (i.e., feelings associated with knowing versus suspecting a failure) and for the decision to temporarily postpone information search, implying that the decision to postpone the search of information has more to do with a desire to "protect" an anticipated event (i.e., feelings associated with the activity), and less with the outcome expected (i.e., passing or failing the exam).

Experiments 2A and 2B showed that a desire to ensure that the weekend would be pleasurable mediated the decision to postpone information search, even when people were highly curious regarding the value of the information (Experiment 2B). Finally, Experiment 3 offered motivations other than the need to protect a pleasurable event that may influence the decision to temporarily put off information search. In this experiment participants who were about to go on a business trip were more likely to postpone information acquisition until after the trip than to retrieve the information immediately, particularly when the information was coded as reversible (i.e., future refund was possible). This may have been because they expected to be heavily engaged during their upcoming business seminar. Participants going on a vacation trip preferred to postpone information search until after the trip, particularly when the information had no instrumental value (refund was not possible). This, we explained, was because the information could have interfered with their vacation (if it was revealed that the stereo's discounted price was indeed lower than the original price paid). Interestingly, when the information was reversible, it was possible to relinquish regret associated with a former bad purchase decision (Zeelenberg & Pieters, 2007); thus, participants in the vacation scenario were more likely to immediately search for the reversible information. The latter observation supports our conviction that a decision to search or postpone the search for information that is related to forgone opportunities is often the result of an affective goal.

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Delay-Based Discount of WOM Communication

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Substantial research suggests that negative information is more impactful than positive information. For example, in forming impressions of others, people tend to give more weight to others' negative attributes than positive ones (Fiske 1980; Skowronski & Carlson 1989). In consumer research, negativity bias is reflected in studies showing that negative product information is perceived to be more informative than positive product information (Herr, Kardes, & Kim 1991) and that negative ratings impact sales to a greater extent than positive ratings (Chevalier & Mayzlin 2006).

Research on Word-of-Mouth (WOM) communication shows that although consumers pay attention to message valence, they also take into account the reviewer's expertise (Feick & Price 1987), their similarity to the reviewer (Brown & Reingen 1987), their past agreement with prior recommendations from the reviewer (Gershoff, Broniarczyk, & West 2001), and inferences about reviewer motivations (Friestad & Wright 1994). In this paper, we argue that negativity bias may be affected by consumers' inferences about reviewers' motives.

A variable likely to influence attribution about reviewer motivation is timing of review in relation to consumption. For example, a diner might provide temporal proximity information (between consumption time and review time) in her review by stating "Just got back from Joe's." We hypothesize that consumers use this temporal proximity cue (i.e., same-day reviews) in judging reviewer motivation, which in turn affects the perceived helpfulness of the review. In particular, information that the reviewer just had an experience might suggest that they are motivated by helping others and so a positive review is credible; whereas a lack of information about when the experience occurred, or information that the experience occurred a while ago, might suggest to the reader that the review was written under ulterior motives (e.g. helping the firm, Mayzlin 2006). Using online review and experimental data, we find evidence of negativity bias. However, when temporal proximity cues (i.e., same-day reviews) were presented, negativity effect disappears.

As a test of our hypotheses in a real-world setting, we examined how temporal proximity information affects the perceived helpfulness of positive versus negative online reviews.

Over 65,000 reviews were extracted from the popular restaurant review website Yelp. In addition to review text, we collected information about review valence (1-5 stars, with 5 being best) and number of people finding the review helpful. We also collected review-specific (e.g. word count) and reviewer-specific (e.g. photo) control variables. Using a list of keywords, reviews texts were coded based on whether or not they included temporally proximate information. For example, reviews containing the words "just got back" or "today" were coded as temporally proximate. A research assistant manually coded 300 reviews and the results were identical to those found using the machine coding scheme in over 95% of the cases.

A negative binomial (NBD) regression, controlling for review- and reviewer-specific variables, with number of people finding the review helpful as the dependent variable, shows that the relationship between valence of the review (star rating) and the perceived usefulness of the review is moderated by temporal proximity cues.

When there is no temporally proximate information (panel 2), negative reviews were found to be more useful than positive reviews. However, when temporal proximity cues are provided (panel 1), negativity bias disappears. The online review results show that while people find negative reviews to be more useful in general, this negativity bias is not present when temporal proximity cues are provided. To see if these results would replicate in a controlled setting, and to test our motivational explanation, an experiment was conducted.

Participants were assigned to one of four between-subjects conditions in which they were asked to rate the helpfulness of reviews and assess reviewer motivations. Reviews were either positive (5/5) or negative (1/5) and either included a temporal proximity cue (“Just got back”) or was written without such cue. Review usefulness was measured using the average of two 9-point items ($\alpha=0.71$) adapted from Sen & Lerman (2007). In addition to rating the perceived helpfulness, respondents were asked to rate the likelihood that the reviewer was motivated by: altruism (concern for other), self-enhancement (positive projection), helping the company, venting (easing of anger), vengeance (against the restaurant), and other (respondent provided) using 100-point scales.

Helpfulness. As in Study 1, an interaction was found between the presence of temporally proximate information and review valence. Results indicate that the perceived helpfulness of negative reviews does not change with the addition of temporally proximate (i.e., same day) information. However, positive reviews that include temporally proximity cue are perceived to be more helpful than positive reviews without such cues.

Reviewer motivations. Analysis of motives indicates that the writer of the positive review, in comparison to the negative reviewer, is perceived to be more motivated by altruism and helping the company; vice-versa is true for the venting and vengeance motives. More interestingly, there is an interaction between review valence and temporal proximity information for self-enhancement motives. For negative reviews, the presence of temporal proximity information does not affect attributions of self-enhancement motives to the reviewer. However, writers of positive reviews without temporal proximity information are perceived to have significantly higher self-enhancement motivations. Regression analyses confirm that as inference of self-enhancement increase, perceived helpfulness of reviews decrease.

Results from the online review data and experiment provide insights into the negativity bias found in prior WOM research. When temporal proximity cues (i.e., same-day reviews) are not provided by the reviewer, positive reviews are viewed as self-enhancing, which leads to a decrease in the perceived helpfulness of those reviews. However, when the reviewer indicates that he just had the experience, self-enhancement attributions decreases to the level of those for negative reviews, increasing perceived helpfulness.

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Cognition vs. Motivation: Motivational goal pursuit drives the influence of discrete emotional state on risk seeking, but is moderated by Need for Cognition

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Consumer purchase decisions typically carry some risk because consumers are not 100% sure that they will be satisfied with their purchase. Marketers are aware of this and attempt to reduce risk by providing lenient return policies, satisfaction guarantees, and free trials. Importantly, consumers' emotional state has been shown to influence their willingness to take such risks (e.g. Johnson and Tversky 1983). Two alternative mechanisms have arisen to explain this influence: cognitive carryover and motivational goal pursuit (Pham 2004; Han, Lerner et al. 2007). The present research conducts a critical theory test to identify which of these mechanisms underlies the influence of discrete emotional state on consumer risk seeking behavior.

Under the cognitive theory account, the influence of a consumer's discrete emotional state is thought to be driven by its associated "emotional certainty." A highly "certain" emotion such as anger, compared to a highly "uncertain" emotion such as fear (Smith and Ellsworth 1985), leads to increased optimism (Lerner and Keltner 2000; Lerner and Keltner 2001; Han, Lerner et al. 2007). This increased optimism carries over to cognitively influence risk seeking behavior. For example, an angry (vs. fearful) consumer will be more risk-seeking, preferring high risk/high reward options due to increased optimism about their success.

In contrast, the motivational theory suggests that the influence is driven by the regulatory goal associated with the discrete emotion (Raghunathan and Pham 1999; Raghunathan, Pham et al. 2006; Chiou, Chang et al. 2009). Anger is associated with the regulatory goal of "mood repair" while fear is associated with "uncertainty reduction." As such, this theory also suggests that angry (vs. fearful) consumers will be more risk seeking, but due increased attractiveness of the high risk/high reward option rather than increased optimism. Although both theories cite alternative mechanisms, they predict identical risk seeking outcomes under negative emotions, which is the domain used in prior research. Looking at the domain of positive emotions, the two theories make competing predictions, which we test in the present research.

The positive emotions of happiness or pride are associated with emotional certainty while hope and surprise are associated with emotional uncertainty (Smith and Ellsworth 1985). Happy or proud participants should therefore be more optimistic than hopeful or surprised participants (Lerner and Keltner 2001). Thus, the cognitive account predicts that happiness or pride (vs. hope or surprise) should lead to increased preference for high risk/high reward options.

The motivational account makes competing predictions. The emotions of happiness and pride are associated with the regulatory goal of "mood maintenance". As such, happy or proud consumers are more likely to avoid risky options in an effort to preserve their state (Isen and Patrick 1983; Isen and Geva 1987; Isen, Nygren et al. 1988; Nygren, Isen et al. 1996). Meanwhile, the emotion of hope is associated with the goal of "yearning for goal-congruent outcomes" (MacInnis and de Mello 2005) while the emotion of surprise is associated with "expecting the unexpected" (Roseman, Antoniou et al. 1996; Schutzwohl and Borgstedt 2005). This leads to the prediction that participants experiencing hope or surprise will have an increased preference for high risk/high reward options. In summary, the motivational account predicts that happiness or pride (vs. hope or surprise) leads to decreased preference for high risk/high reward options.

We test these competing predictions in two experiments. In both experiments, participants were first primed by recalling an emotional event (E1: happy vs. hope, E2: pride vs. surprise). Participants then indicated risk preference by making a choice (E1) or by indicating the desirability of the options (E2). Participants then estimated the likelihood of the risky outcome occurring on a 7-point scale anchored by Very Likely and Very Unlikely. These dependent variables were adapted from prior research on risk seeking behavior (Kahneman and Tversky 1979; Tversky and Kahneman 1981; Nygren, Isen et al. 1996; Raghunathan and Pham 1999). In these risky gamble scenarios, participants may either gain something or gain nothing, but they will not lose anything. For example, participants may choose one of two options: gain \$4 for sure vs. a 40% chance of gaining \$10. The latter represents a high risk/high reward option relative to the small, sure gain of the former.

Across experiments we obtain results consistent with each other. Specifically, we find that participants feeling happy or proud (vs. hopeful or surprised) were indeed more optimistic about their chances of winning the high risk/high reward gambles. However, despite this increased optimism, happy and proud (vs. hopeful and surprised) participants had a *decreased* preference for the high risk/high reward options. Critically, this counter-intuitive finding supports the motivational account, and not the cognitive account.

Additionally, to identify when the aforementioned motivational effect is strongest, experiment 2 explores moderation by the personality trait Need for Cognition (NFC; Cacioppo and Petty 1982). Prior research shows that high NFC participants, being more analytical thinkers, actively engage in correction of prime-induced biases. This moderating effect has been replicated on *cognitive* influences of priming (DeSteno, Petty et al. 2000; Kuvaas and Kaufmann 2004; Petty, DeMarree et al. 2008). However, whether this effect extends to *motivational* influences of priming is understudied (for an exception see Lin, Yen et al. 2006). Experiment 2 finds that the motivational effect of discrete emotion is indeed moderated by NFC. Low NFC participants show effects in the expected direction while high NFC participants show effects in the opposite direction. This reversal is due to over-correcting for the bias (e.g. Forehand and Perkins 2005). This finding is ironic in that by attempting to correct for a bias, high NFC participants instead bias their likelihood estimations and preferences in the opposite direction.

In sum, this research produces two important findings. First, it fills an important gap in the literature by identifying motivation, rather than cognition, as the underlying mechanism by which discrete emotions might influence consumer risk-seeking behavior. That is, although optimism is influenced by cognition, actual behavior is driven by motivation. Second, this effect is shown to be strongest for low NFC participants. In contrast, high NFC participants show effects in the opposite direction, resulting from over-correcting for the prime-induced bias. This latter finding also extends the literature on NFC and priming by demonstrating that, in addition to cognitive biases, high NFC participants also correct for motivational biases.

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2.8 *Symposium: Visual Advertising: Paths to Persuasion*

Room: Maple Room C

Chair: Pragyan Mohanty, University of Missouri, USA

Discussion Leader: Laura A. Peracchio, University of Wisconsin–Milwaukee

The Persuasive Impact of Advertising Visuals: Thirty Years On, What Have We Learned?

Edward F. McQuarrie, Santa Clara University, USA

Barbara J. Phillips, University of Saskatchewan, CANADA*

This paper will begin with the Mitchell and Olson (1981) effort, and consider how theoretical and methodological approaches to the study of advertising visuals have evolved. Initial theoretical analyses were quite rudimentary. The assumption in this early era was that a picture could be used to inject a single semantic predicate into the viewer (kitten → soft), and also that pretesting could successfully generate picture-word pairs that were semantically indistinguishable. This early phase might be summed up as ‘pictures are a language’, or more properly, as investigation into the semantics of pictures.

The initial era ended with Scott’s (1994) critique, which can be read as a rejection of the semantic perspective. Key to this rejection was her differentiation of pictorial style. In her analysis, there proved to be no such causal entity as ‘kitten picture’. The causal properties of an image depended not so much on the object depicted, but on stylistic and other properties of the particular kitten image at hand. After Scott, pictures in ads could no longer be viewed simply as undifferentiated vessels for semantic content.

In the ensuing era, authors began to make differentiations internal to the pictorial domain. This second era saw a variety of experimental attempts to manipulate one and the same image into different variants, with each variant conceived as an experimental treatment with a predictable effect on ad outcomes (e.g., McQuarrie and Mick 1999). The unitary category ‘advertising visuals’ breaks down during this second era; the focus is no longer the ‘effects of pictures’ but now the ‘effect of different picture variants’.

As this second era proceeded, authors began to draw on disciplines outside of social and cognitive psychology to theorize the fundamental properties of pictures which could be varied within an experimental design. Key source disciplines were rhetoric and aesthetics. There was also a drive to systematize the possible variations among pictures, culminating in works such as Larsen, Luna and Peracchio (2004), Phillips and McQuarrie (2004) and Scott and Vargas (2007).

As an overlay on the research just described, historical work has revealed that the role of pictures in advertising is itself dynamic and evolving; in fact, that pictures have been gradually displacing words in ads. By 2010, in most magazine ads, words had become few in number, and reduced to a small portion of the ad’s real estate.

Where do we go from here? Two directions seem likely. The first is an intensification of the search for key theoretical properties of pictures when the goal is persuasion via mass-media advertising. We still know very little about how pictures can be differentiated among themselves, or the possibilities and modes of pictorial persuasion, relative to the more familiar verbal persuasion. As pictures become the dominant means of persuading consumers, it is imperative that consumer researchers spend more time developing new theories of pictures specific to persuasion contexts, and less time dotting the *is* and crossing the *ts* of decades-old theories of verbal persuasion, now become otiose.

The second direction is to take a step back and broaden our view of the range of pictorial variation in advertising. To help the audience glimpse what has been neglected thus far, the presentation will conclude with the presentation of selected ad images that seem to demand new theory, in part because they are not easily manipulated along the lines of the images in McQuarrie and Mick (1999) or Scott and Vargas (2007).

The pictorial examples to be displayed suggest the advent of an emerging third era of consumer research on the persuasive capacity of ad pictures. Just as pictures proved not to be simple vessels for semantic content—pictorial words, as it were—so also we may find that stated beliefs and attitudes, evolved to capture the impact of verbal persuasion, aren't so pertinent to understanding the impact of ad pictures. Consumer research methodology will have to change accordingly.

“I Did Not Get It”: Role of Incongruity, Type of Processing, and Need For Cognition in Comprehensibility of Visual Metaphors

Praggyan Mohanty, University of Missouri, USA*

S. Ratneshwar, University of Missouri, USA

A recent ad for Microsoft Office shows a female standing in an office setting with the head of a dinosaur. The ad copy reads “Microsoft Office has evolved. Have you?” This is an example of a visual metaphor, a type of rhetorical figure that is used extensively in advertising. Visual metaphors present two elements in relationship with one another such that one (i.e. the source, the dinosaur in the above example) is used to organize or conceptualize the other (i.e. the target, the female in the example; see also (Lakoff and Johnson 1980). The fusion of two elements from different semantic domains (e.g., female and dinosaur) makes a visual metaphor incongruous. Formally, we define incongruity in a visual metaphor as the degree to which, perceptually and semantically, the depiction of the source and/or target elements in the visual, deviates from prior expectations.

Incongruity in a visual metaphor renders an ad incomprehensible at first glance. This causes arousal and stimulates the viewer to try and reconcile the elements that produced the lack of comprehensibility. Resolution of incongruity proceeds only after a rather complex process of metaphoric comprehension. Because the message of the ad is not presented directly in a visual metaphor, the viewer has to make an effort to comprehend the message. Hence, the issue of ad comprehensibility in the context of visual metaphors is a very pertinent one. But unfortunately consumer research on comprehensibility of visual metaphors in ads or for that matter other non-literal styles of communication is dismally low. This thesis hopes to make a theoretical contribution by addressing two unanswered questions in regard to the comprehensibility of visual metaphors: (1) what is the effect of degree of incongruity in visual metaphors on ad comprehensibility? (2) when can the effect of incongruity in a visual metaphor on ad comprehensibility be attenuated?

In study 1, we investigated the relationship between incongruity in a visual metaphor and ad comprehensibility. Incongruity in a visual metaphor was manipulated by using different source elements to transfer the same property to the target element. Two ads were created for a fictitious brand of bottled water. The message of the ads was “the freshest bottle water in the store”. This message was communicated by either showing a spring coming out from the bottle or by showing bread on a baking tray coming out from the bottle of water. The bread ad was perceived to be more incongruous than the spring ad ($p < .001$), but did not differ on confounding measures. Incongruity in a visual metaphor ($\alpha = .88$) was measured by a six-item bipolar scale with items such as “expected-unexpected”, “relevant – irrelevant”, “usual – unusual”, etc. For the main study, subjects were randomly assigned to either low or high incongruity ad condition. They rated the ads on a two-item measure for ad comprehensibility ($r = .85, p < .001$). The items for ad comprehensibility were “to what extent did you understand the ad” and “how certain are you that you understood the ad”. Study 1

results showed that high incongruity visual metaphor lead to poorer ad comprehensibility than low incongruity visual metaphor ($F(1, 58) = 5.22, p < .03$).

In Study 2, we examined the role of incongruity, type of processing -- item or relational processing (Einstein and Hunt 1980) and need for cognition (NFC) in comprehensibility of visual metaphors. We used a 2 (type of visual metaphor: low incongruity vs. high incongruity) x 2 (type of processing: item vs. relational processing) x 2 (NFC: high vs. low) between-subjects factorial design. First, subjects were primed into either an item (or relational) processing thinking mode. Thereafter, they rated either a low (or high) incongruity visual metaphor on the ad comprehensibility measure and finally filled an 18-item measure for NFC. In study 2, we predicted and found a main effect of type of processing ($F(1, 211) = 5.4, p < .03$), i.e. ad comprehensibility scores were higher when subjects were primed to think relationally versus at an item level. Further, we predicted and found a three-way interaction ($F(1, 211) = 6.20, p < .02$), such that for high (but not low) NFC subjects the differences in ad comprehensibility scores between high and low incongruity visual metaphor was attenuated under relational (but not item) processing.

In sum, our research suggests that incongruity in a visual metaphor has an inverse relationship with ad comprehensibility. Relational (vs. item) processing helps improve comprehensibility of visual metaphors. Interestingly, there seems to be no main effect of NFC on ad comprehensibility suggesting that this trait by itself may not lead to better comprehensibility of visual metaphors. But, high (not low) NFC subjects may be able to resolve the incongruity in a high incongruity visual metaphor and comprehend it equally well as a low incongruity visual metaphor by thinking about it relationally.

The Impact of Ad Color on Brand Image Beliefs: The Role of Cognitive Factors

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Extant literature shows that color utilized within advertising can affect overall feelings (e.g., excitement or relaxation), which in turn affects attitudes toward the advertisement and the product therein (Gorn et al. 1997). Additionally, some studies examine the creation of brand meaning through the nonverbal properties of ads and brand names (e.g., Yorkston and Menon 2004; Peracchio and Meyers-Levy 2005). However, questions remain: to what extent are these nonverbal effects cognitively, rather than affectively, mediated? Are high cognitive resources required for both pathways? What must be the inferred source and timing of these nonverbal ad-evoked feelings, for them to influence judgment? We propose that the feelings generated from specific ad colors impact brand meanings and beliefs, and ultimately brand attitudes (A_b), through cognitive and affective routes. We anticipate that these nonverbal effects are largest when participants' cognitive resources are most limited (high cognitive load and low-NFC participants), and when attention is drawn early-on to the source of the feelings as being the ad, making them stronger and more diagnostic.

Design and Procedure. Study 1 used a 2 (*ad color*: red and gray, with the red being pretested as being more evocative of excitement feelings) x 2 (*cognitive load*: high, low) x 2 (*attribution of feelings*: from car ad, or your own feelings) design, with a fictitious convertible car as the product in the ad. We also capture need for cognition (NFC) as a fourth measured factor. To manipulate cognitive load, participants memorized a 10-character alphanumeric string. The attribution manipulation had participants rate "how the

color of the ad for the convertible car makes you feel at this moment,” early in the study, or “how are you feeling at this moment,” later in the study.

Results. We hypothesize that the effect of ad color on brand beliefs and A_b is greatest when participants low in cognitive resources consider the feelings with the car ad as the source (thus be most diagnostic) and when those feelings are measured earlier (salient). Therefore, we anticipate an interaction among the factors where conditions that motivate a heightened focus on feelings in evaluations (high cognitive load, low NFC subjects; feelings attributed to the ad seen early) yield the strongest effects of ad color. A four-way ANOVA with A_b as the dependent variable and involvement as a covariate reveals such a four-way interaction ($F(1, 310) = 7.69, p < .01$). Additional ANOVAs for image brand beliefs and excitement BP beliefs reveal similar four-way interactions. We next find that when image beliefs are included as a covariate with A_b as the DV, the interaction of ad color and cognitive load is no longer significant ($p > .14$), while the image effect remains significant, supportive of mediation by changed-beliefs on changed-attitudes. The results thus show that ad color affects brand beliefs and ultimately A_b in nonverbal ways. Effects are strongest when ad-evoked feelings are more salient and thus used as the dominant input to evaluations. However, teasing out the effects of source of feelings (ad, self) versus the timing of that feelings question (early, late) requires further analysis.

Study 2 explores the independent effects of the source attribution of feelings and the timing (salience) of the feelings question. We employ a 2 (*ad color*: red, gray) x 2 (*source of feelings*: car, self) x 2 (*timing of feelings*: question before, after evaluations) design, and collect similar measures as in Study 1. Significant effects emerge only when analysis is restricted to conditions where participants evaluate their feelings as resulting from the car ad (making it diagnostic), with the feelings question early (making it salient). The same mediation pattern of Study 1 again holds.

In summary, for the nonverbal effects of ad color on brand beliefs and attitudes to appear, cognitive processing must be minimal, and the ad-evoked feelings must be both salient and considered diagnostic for brand evaluations.

United We Stand: The Effects of Visual Composition on Perceptions of Complementary Products

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S. Ratneshwar, University of Missouri, USA

Marketers frequently launch new products designed for complementary consumption with existing products, and they often do so by extending a well-established brand name into a new product category. Examples of such complementary-consumption products are Crest toothpaste and toothbrush, as well as Barilla pasta and pasta sauce. When launching complementary products, marketing communications such as print ads and product packaging images on web sites regularly depict the two products next to each other visually. Indeed, showing complementary products in a visually adjacent manner intuitively seems the natural and right approach. But might such an approach actually have drawbacks, and is there a more effective way to do things when it comes to visual composition?

The present research draws on theory from art and gestalt psychology to examine this problem. It has been suggested in the art literature that the style of visual composition can promote a sense of togetherness (Arnheim 1974). Specifically, by overlapping the images of products, it may be possible to strengthen a perceived relationship between two entities. Thus, it has been proposed that mutual modification and sharing of contours via overlapping, interfering images can enhance togetherness (Arnheim 1974).

In a preliminary study ($n = 101$), we examined perceptions of an innovatively-designed dishwashing brush. Participants were shown either a picture with accompanying copy for the brush, or the same picture and copy for the brush with this purportedly new product visually adjacent to a bottle of dishwashing liquid. We anticipated that the latter condition would lead to an assimilation process such that the perception of newness of the brush would be undermined by the nearby presence of a familiar product. The results confirmed our prediction; participants in the “adjacent images” (AI) condition versus those in the brush only condition judged the brush to be less innovative and had lower purchase intentions.

So, might there be a more effective way to visually depict a new product along with the product for which complementary consumption is intended? We tested in a second study the AI condition against an “overlapping images” (OI) condition ($n = 121$). Drawing on the theory cited earlier, for the OI condition we had a professional graphic designer create a visual composition wherein the image of the brush partially overlapped and somewhat obscured the image of the dishwashing liquid bottle. In line with our predictions, the results showed significantly higher product evaluations and purchase intentions for the OI (vs. AI) condition.

In a third study, we examined the case of new products introduced for complementary consumption with a brand extension strategy. Specifically, the stimuli for this study were Bounty all-purpose cleaner (a new product), to be used with Bounty paper towels (an existing product); and analogously, Campbell’s crackers, to be consumed with Campbell’s soup. Two pretests were conducted to select these two brands and the extension products, and to verify that brand awareness, familiarity, and liking for both brands were high. A professional graphic designer created packaging shot images for the two extension products using the same logos, dominant colors, etc. of the existing products. Later, these images were used to create the AI and OI conditions of the study. The results of the study ($n = 95$) once again confirmed significantly higher product evaluations for the new (i.e., brand extension) products in the OI (vs. AI) condition.

In research that is currently in a data collection stage, we are examining the role of moderating variables such as individual differences. One promising line of inquiry is whether a chronic tendency to process information holistically (vs. analytically) might interact with the OI/AI effect observed in the previous studies. For example, it may be the case that consumers who are relatively holistic processors may judge the new product equally favorably in both OI and AI conditions, whereas those who are inclined to process analytically might be the ones to display a large OI (vs. AI) effect.

Taken as a whole, the implication of our research is that the manner of visual composition in a marketing communication can have subtle yet significant effects on how new products are perceived. More specifically, visual compositions with overlapping images of products appear to hold a lot of promise as an effective means of depicting products intended for complementary consumption.

3.1 Symposium: Dollars and Debt: Financial Decision Making and Consumer Welfare

Room: Grand Ballroom A

Chair: Abigail B. Sussman, Princeton University, USA

The Psychology of Perceived Wealth: The Twofold Impact of Debt on Financial Decision Making

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Eldar Shafir, Princeton University, USA

Perceptions of wealth are central to economic behavior and feelings of well-being. To date, research on wealth perception has mostly focused on relative wealth, namely, how well off people are when compared to those around them (e.g. Frank, 1999, 2007), and on conspicuous consumption, whereby people purchase visible status items to signal wealth (e.g. Veblen, 1899, Heffetz, 2010).

While these perspectives are important, they focus on features that, at best, act as correlates of wealth. People are influenced by the perceived wealth of others, but that, of course, does not fully correspond their actual wealth. Nor do the social motivations to impress others through financial extravagances. While important, these perspectives do not provide insight into a person's sentiments about her actual wealth. In contrast, the present studies look at wealth perception as it is influenced by factors directly related to wealth, namely, people's assets and debt. We explore how these factors shape perceptions of wealth, both one's own and others', as well as the willingness to engage in important financial transactions, including borrowing, lending, and spending, that emanate from such perceived wealth.

We first examine how full knowledge of total assets and debt enters into the perception of wealth. We find that keeping total net worth constant, people with positive net worth are seen as wealthier when they have lower debt (despite, consequently, having lower assets). In contrast, keeping total net worth constant, those with negative net worth are considered wealthier when they have greater assets (and, consequently, greater debt). Across a series of studies, we find that, when judging the wealth of people with equal positive net worth, approximately three-quarters of participants view those with lower debt and lower assets to be in a better financial position than those with higher debt and correspondingly higher assets. In contrast, when judging the wealth of people with equal negative net worth, approximately three-quarters of participants viewed those with higher debt and higher assets as in better financial position than those with lower debt and correspondingly lower assets.

We show this pattern to be robust to possible interpretations that appeal to liquidity constraints or to computational demands, and we find that it applies to participants' judgments both about themselves and about others. We also extend the findings to contexts where they yield counter-normative judgments, in which the perceptions described above persist when net worth differs by approximately 20% (e.g., where a person of \$10,000 net worth but lower debt is perceived as wealthier than a person of \$12,000 net worth but greater debt).

In follow-up studies, we extend these findings to several financial decisions, including reported willingness to borrow, lend, and spend. Specifically, we demonstrate that people with the preferred wealth distributions are more likely to take on additional debt, and that others are more likely to evaluate them as in a better position to borrow money. Furthermore, those with preferred wealth profiles (although equal or lower actual wealth) are willing to spend more to purchase luxury items.

To explain these results, we test the hypothesis of an attentional shift when subjects confront positive versus negative net worth scenarios. We first show a positive correlation between asset balances and perceived wealth for those with equal negative net worth ($r = .73$, $p = .017$), and an asymmetric negative correlation between asset balances and perceived wealth for those with equal positive net worth ($r = -.91$, $p < .001$). We then provide more direct evidence that in the positive net worth scenario, debt (rather than assets) draws subjects' attention, by coding participants' initial reactions to financial profiles. The burden of holding debt stands out as a salient negative relative to one's overall positive state, disproportionately affecting perception. Conversely, in negative net worth scenarios, the possession of assets attracts more attention as it stands out against one's overall negative state.

We discuss how the findings go beyond a prospect theoretic account, and we explore how they can be used to explain why some individuals are debt averse, avoiding financially wise low interest loans, while others are debt seeking, taking on economically questionable high interest loans. Finally, we consider several policy implications, with an emphasis on the consequences for borrowing among the poor.

Interestingly, the same general impulse for financial wealth and stability can trigger opposing behaviors: a striving for greater assets despite larger debt in some circumstances, and for lower debt, even if it means lower assets, in others. Such impulses, furthermore, may not always agree with what might be best financially. For example, it is likely that those with negative net worth who are eager to borrow (and may feel wealthier as a result) will only have access to high interest loans, thus exacerbating their already precarious finances. On the other hand, those with positive net worth who could benefit from taking on low interest debt, such as student loans, may be reluctant to make a profitable investment in their education, because of its negative impact on their perceived wealth.

Impressions of financial stability, assets, and debt have been shown to impact not only financial behavior, but also overall health and well-being (Miron-Shatz, 2009; Nelson, Lust, Story, & Ehlinger, 2008). Better insight into the perceptions and impulses that yield financial behaviors may enrich our understanding of the relevant psychology, and contribute to behaviorally informed financial design and policy.

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Perceived Fairness in Financial Decision Making

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Market regulators are very interested in the principle of "transparency" - the extent to which buying and selling prices, fees, and other transaction information is available to consumers in that market. One of the key concepts in definitions of transparency is the idea of fairness. Within the marketplace for consumer financial products such as mortgages and retirement accounts, perceived fairness (or perceived lack of fairness) may have substantial influence on which products consumers are willing to choose.

Perceived fairness can be affected by underlying costs (Kahneman, Knetsch, Thaler 1986; Baron, Maxwell 1996), bundled versus separate prices (Sheng, Bao, Pan 2007), and whether the underlying costs are variable or fixed (Nunes, Hsee, Weber 2004). Markets can be constrained when the actions within them are perceived as unfair (Roth 2007; Statman 2005), as participants attempt to punish unfair players. Compared to individuals, firms are perceived as more unfair due to larger wealth and power (Seligman, Schwartz 1997). This distinction between firm and individual issues of fairness has become even more salient as firms and individuals decide

whether to walk away from their financial obligations in the midst of the current housing crisis (Thaler NYT 1/23/10); the government has encouraged homeowners to keep up payments since walking away is “not honoring an obligation”, while banks are allowed to act in their financial best interest. These different expectations of fair behavior represent a “norm asymmetry” (White 2009) between firms and individuals. Finally, work on procedural fairness has demonstrated that the process by which outcomes are determined matters for fairness judgments (Bies, Tripp, Neale 1993). This suggests that transparency may be not only about prices and outcomes, but also about the actual process under which the market operates.

This paper addresses several research questions regarding consumer fairness perceptions. First, what assumptions do consumers hold about fairness norms for financial products? Second, will consumers be willing to punish firms perceived as unfair by not purchasing from them? Finally, can differences in how the underlying business process is described affect these fairness judgments? These questions are addressed through a series of studies that manipulate descriptions of both products and processes, measure perceived fairness, and then connect these fairness measures with product choice.

Study 1 focuses on mortgage decisions and investigates how individuals interpret the information they receive and judge the fairness of different loans. In this study, 281 participants evaluated one of four conditions varying on size and length of loan and on whether APR was explicitly provided. For both large and small loans, a majority of participants felt that the loans with higher interest rates were both financially better and more or equally fair for the consumer; this effect was attenuated (but not eliminated) when interest rates were clearly visible. They also felt that longer loans with lower interest rates were financially best for the bank. Additional questions found that the difference between nominal total payment amount and principal, which respondents perceive as profit, is the primary determinant of how they define an attractive loan for the bank (and conversely, a less attractive loan for the consumer). This overall pattern of responses suggests that consumers appear to value loan length and total payment amount over interest rate when evaluating financial advantage and fairness for the consumer and financial advantage for the bank. Judgments match their perception that the difference between the total payment amount and the principal represents profit for the bank, so a loan with a higher total payment amount must benefit the bank at the expense of the consumer. These perceptions stand in direct contrast to how interest rates are interpreted in financial markets, in which a higher rate loan is commonly judged as worse for the consumer and more profitable for the lender.

In Study 2, 103 participants were asked to compare one of two borrowing situations: either two credit cards or a credit card versus a bank loan. In the credit card condition, the APRs are only slightly different (16% vs 18%), and results show that participants see the lower APR card as financially better and more fair for the customer and financially worse for the bank, consistent with financial advice. In the second condition, a credit card loan is compared against a short loan (14 day textbook loan) that closely mirrors the design of most payday loans, with a much larger difference in APRs (16% vs 260%). Here, only 48% see the lower rate credit card as more fair for the consumer, even though they correctly identify that the short term loan has a higher APR. These results suggest that individuals may be relatively indifferent to the size of the difference in APRs when comparing between loan options, with the result that very high APR options are perceived as being similarly fair to lower rate options.

The final study focuses on how perceptions of both procedural and outcome fairness influence willingness to do business with a financial services firm. Study 3 presented 395 participants with one of twelve scenarios about a financial services product and asked them to judge the fairness of the offer for both the consumer and the firm, as well as willingness to do business with the firm offering the product. Scenarios varied based on product domain (housing, annuities, reverse mortgages, and retirement plans) and on how the business model was described in terms of how profits and losses are distributed among either customers or the firm. Significant results are found for domains and also for how outcome distributions are framed. For example, defined benefit retirement plans are

considered significantly more fair when described as individuals never running out of money rather than not being able to choose their investment (5.5 vs 4.5, $p < .001$). Overall, participants find options more fair when direct impacts on end consumers are more clearly explained, consistent with the transparency efforts of regulators. These findings have important implications for both financial services firms and the public policy experts who regulate them.

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Time Preferences, Mortgage Choice and Strategic Default

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A decade ago, the subprime mortgage industry appeared to offer a promising alternative to homeowners edged out from qualifying for traditional mortgage financing. That promising alternative has turned out to be a nightmare, both for the lenders and homeowners. After the housing market peaked, an increasing number of American homeowners found that the underlying value of their home was less than the amount they owed on their mortgage. These homeowners had negative home equity, a situation alternatively known as having an “underwater” home.

Both the design of financial products and public policy interventions must recognize that consumers are heterogeneous. This paper investigates how individual differences in time preferences (individual differences in tastes for outcomes across time) along with other factors affect mortgage choices that lead to and follow negative home equity such as the decision to “walk away” from a mortgage that is “underwater.” We focus on two related questions: First, who is more likely to have a mortgage that is larger than their current house value? Second, who is more likely to strategically default, i.e. to abandon the mortgage and move away? We are interested in mortgage choice and potential abandonment both because they are of substantial practical interest, and also because they are prototypical of many consumer choices that involve a stream of consequences across time.

In our inquiry, first, we review a traditional economic analysis of mortgage choice (Campbell and Cocco, 2003). Although that model does allow for some individual differences in tastes, we suggest some more behaviorally informed parameters of time preferences and risk taking will allow us to capture greater consumer heterogeneity in tastes, abilities, and knowledge. A quasi-hyperbolic discount function suggests that more present bias will cause decision-makers to overweight earlier consequences relative to those that may occur later (Angeletos et al. 2001; Benhabib et al. 2009; Laibson 1997). In particular, we expect present-biased respondents to tend to overweight immediate (vs. future) consequences such as increased later payments and the risk of housing equity loss.

When abandoning an underwater mortgage, most of the costs (particularly the non-economic costs) are immediate and without an accompanying immediate gain. Finding a rental unit, moving, potential changes of schools and loss of neighbors, might be offset by longer-term savings, because the rent may be lower than current mortgage payments. However, this choice represents more of an intertemporal tradeoff. We therefore expect individuals with more present bias to overweight these costs and be less likely to walk away. Thus present-biased individuals may face a form of economic double jeopardy: They are more likely to arrange a riskier mortgage, and are less likely to walk away from the consequences. In contrast, the delayed consequences of mortgage abandonment pit a near-term unattractive option (i.e. continued payment with no buildup of equity) against the longer-term benefits of potentially having positive home equity. In this case we expect people who are impatient to be more likely to abandon their current mortgage.

Our survey of 244 US homeowners who have mortgages (roughly half of whom were underwater) allows us to evaluate these specific hypotheses about how individual differences in values, abilities, and knowledge may be related to mortgage choices and the intentions to strategically default. The homeowners answered questions about themselves (including debt literacy, and cognitive reasoning), their home, their financial stake in the home, and about financial conditions that would prompt walking away from their mortgage. Notably, we elicit individual-level quasi-hyperbolic discounting and prospect theory parameter estimates as the first application of the adaptive method developed by Toubia et al. (2010). We then use this data in a set of regression analyses of the relationships between consumer differences in values, ability, and knowledge, home equity status and preceding mortgage decisions. We also relate consumer heterogeneity to willingness to walk away from their mortgage. Finally, we discuss the implications of our results for the study of household financial decision-making.

In mortgage choice we find that the two separate components of time preference work in similar directions. We find that consumers who weigh immediate outcomes more heavily (more present biased), are more likely to be “underwater” with their mortgages. Similarly, those who discount the future more are also more likely to be underwater. Importantly, consumers with stronger present bias are also more likely to have initially borrowed more, a second mortgage and an adjustable interest rate. These findings do not appear to be driven by the “reverse” effect of underwater status on time preferences, nor by changes in the stringency of mortgage standards.

The importance of modeling these two components of time preferences separately is illustrated by our analysis of walking away from a mortgage. Here present bias and discount rates work, as predicted, in opposite directions. Because the costs of abandoning a mortgage are mostly in the near term, present-biased households are more likely to continue paying a mortgage, even with negative equity. In contrast, more general (i.e. exponential) time discounting was associated with a greater willingness to walk away. The findings are robust to the inclusion of several preference controls including probability weighting, sensitivity to value changes, loss aversion, debt literacy, cognitive reasoning, and demographic factors.

The present findings might appear to endorse the view that time preferences have an almost trait-like status. However, we see the discounting parameters as convenient summaries of more complex cognitive processes. That is, they reflect constructed as well as revealed values. Such a constructive process view suggests possible interventions, particularly combined with the observation that present bias has different roles in mortgage choice and in walking away. Finally, our analysis of mortgage choice and abandonment suggests principles that can be applied to many consumer decisions that, in economics, are the province of life cycle models. These include balancing savings and retirement across the lifetime, the choice to rent or to own, and the decision to insure against longevity risk through annuities.

Axe the Tax: Taxes are Disliked More than Equivalent Costs

Abigail B. Sussman, Princeton University, USA

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Tax collection is critical for maintaining an organized society including roads and schools, as well as a broader range of government programs. However, consumers dislike paying taxes. Previous research shows that several heuristics and biases affect behavior surrounding taxes (McCaffery & Baron, 2006; Kirchler, 2007; Reimers, 2009), and that members of different political parties respond differently to tax framing (Hardisty, Johnson, & Weber, 2010). Standard economic models assume this dislike of taxes is a rational reaction to monetary costs.

Although a distaste for paying taxes could be rational on economic grounds, we show that this aversion extends beyond simply disliking the costs incurred and affects consumer behavior in counter-normative ways. We demonstrate the phenomenon of *tax aversion* in which the desire to dodge taxes exceeds the rational economic motivation to avoid a cost. Across two studies, we provide evidence that consumers have a stronger preference to save money when savings are related to taxes compared to when they are unrelated to taxes. Furthermore, we show that this tendency is most prevalent among those identifying with political parties that generally favor less taxation. In a third study, we show that the greater tendency toward tax aversion among participants identifying with “anti-tax” parties disappears when they consider positive uses of tax dollars. In contrast, considering either positive or negative uses has no effect on those identifying with “pro-tax” parties.

In Study 1, 187 US residents participated in a between-subjects design. 56% of those asked were willing to travel 30 minutes for an 8% discount on a television when the discount was labeled as “tax-free” compared to only 26% who were willing to travel for a 9% discount when taxes were not mentioned ($\chi^2(1, N=187) = 5.50, p < 0.02$). This held true despite the higher absolute savings for the tax-unrelated discount.

In Study 2a, 196 US residents participated in a between-subjects design that examined whether this irrational desire to avoid taxes differed across political parties. We asked:

*Imagine you have been working for an American company and your yearly salary is \$50,000 (before taxes). One day, you are offered the chance to lead one of the company's two European branches, each of which is located in a different European country. Regardless of which country you choose to live in, your duties will be the same and your salary will be raised to \$75,000. However, in Country A, your daily commute will be 30 minutes shorter each way. On the other hand, while most expenses are the same in both countries, **[food is more expensive/ taxes are higher]** in Country A, and you would have to **[spend \$5,000 more on food/ pay \$4,000 more in taxes]** there, each year, than you would in Country B. The two countries are similar in every other respect. Which country would you choose to live in?*

Those identifying with anti-tax parties (Republican or Libertarian) demonstrated tax aversion: they were more than twice as likely to prefer living in the country with a longer daily commute when it enabled them to avoid a \$4,000 tax (64%) than when it enabled them to avoid a \$5,000 food cost (28%, $\chi^2(1, N = 57) = 7.34, p = .007$). This preference held despite the \$1,000 lower absolute savings amount in the tax condition. In contrast, the preferences of pro-tax party members (Democrat, Socialist, or Communist) showed no significant effect of condition. Moreover, they demonstrated a directional preference for the longer commute when it meant avoiding the higher food cost than the lower tax cost (53% vs. 35%, $\chi^2(1, N = 75) = 2.33, ns$).

In Study 2b, we extended findings to a separate population with a different political system: UK residents. Right-leaning respondents showed the strongest display of tax aversion, and were more likely to accept a longer commute to avoid a £4,000 tax (63%) than a £5,000 food cost (41%, $\chi^2(1, N = 167) = 8.07, p = .005$). Those in the Centre showed no significant difference across conditions, but directionally showed a greater tendency to exert effort to avoid the tax (49% vs. 36%, $\chi^2(1, N = 95) = 1.54, ns$). Left-leaning respondents showed no difference in willingness to commute to avoid a tax (49%) or food cost (47%, $\chi^2(1, N = 125) < 0.07$).

Finally, in Study 3, we examined a potential mechanism underlying tax aversion; namely, the salience of agreeable or disagreeable uses of tax dollars and its variation across political lines. We also sought to understand how deeply ingrained tax aversion is among members of anti-tax parties. Would it be possible to make members of anti-tax parties less tax averse, thereby bringing their preferences closer to those of pro-tax party members? We investigated these questions by asking participants to list either positive or negative uses of their tax dollars prior to responding to a question that forced participants to choose between a longer commute and higher taxes, similar to that used in Study 2.

Following the negative prime, members of anti-tax parties were significantly more likely than members of pro-tax parties to choose the longer commute over the higher tax (68% vs. 49%, $\chi^2(1, N = 176) = 6.41, p = .011$). A similar result was obtained in the no prime condition (59% vs. 47%, $\chi^2(1, N = 208) = 2.74, one-tailed p = .049$). However, the effect of party affiliation disappeared in the positive prime condition, where members of anti- and pro-tax parties were equally likely to prefer a longer commute over higher taxes (51% vs. 48%, $\chi^2(1, N = 181) = .10$).

These findings have implications for consumers who may be economically biased when considering tax-motivated spending, saving, or investment decisions, for marketers who can effectively lure customers through “tax-free” sales, for economists and policy-makers interested in accurately forecasting revenue generated or lost through changes in tax-policy, and for the government, focused on increasing taxpayer compliance.

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3.2 Symposium: Like Sands through the Hourglass: How Temporal Perspective Affects the Way We Think, Feel and Choose

Room: Pine Room

Chair: Zoë Chance, Harvard Business School, USA

How the Experience of Happiness Shifts Across the Life Course

Cassie Mogilner, University of Pennsylvania, USA*

Sep Kamvar, Stanford University, USA

Jennifer Aaker, Stanford University, USA

From Ancient Greeks and Buddhists to modern philosophers and politicians, thinkers have queried the nature of happiness. Psychologists have contributed to this discussion by empirically investigating measures, behavioral correlates, determinants, and consequences of happiness (Diener & Seligman, 2002; Dunn, Aknin & Norton, 2008; Kahneman et al., 2004, 2006; Lyubomirsky,

Sheldon & Schkade, 2008; Van Boven & Gilovich, 2003). This work has largely focused on people's levels of happiness, while little empirical work has studied the meaning of happiness—what is being experienced when an individual proclaims, "I feel happy"?

Some research has implied that the experience of happiness is similar across individuals (Meyers & Diener, 1995); others have suggested that its experience is highly subjective and idiosyncratic (Gilbert, 2006). In the current work, we explore the possibility that the answer lies between the two, proposing that there is a dynamic and predictable shift in the meaning of happiness and how it is experienced over one's life course. Specifically, we find that in their youth, people are more likely to associate happiness with excitement, and as they get older, they become more likely to associate happiness with peacefulness.

What might cause this shift in the experience of happiness as people age? Research on the psychological consequences of age has shown that age-related differences in the amount of time one has left in life has significant consequences, impacting individuals' goals and social decisions (Carstensen, 2006). In light of this body of work, we reasoned that because older adults (compared to young adults) have a more limited future extending out in front of them, their experience of happiness may be more focused on the present moment—and thus more closely associated with feeling peaceful than excited.

What are the implications of these findings? We reasoned that the shifting experience of happiness would influence behavior, such as how individuals choose to spend their money.

To test these predictions, we used both computational and traditional empirical methods. First, a computational analysis of over 12 million feelings extracted from 4 years of personal blogs uncovered the gradual age-related shift in how happiness is experienced. We then complemented this online empirical tool with the more traditional methodologies of laboratory experiments and surveys to establish the initial finding's robustness, generalizability, underlying mechanism, and implications for choice.

We began our investigation by examining millions of personal blogs containing the phrase "I feel" or "I am feeling" along with the word "happy" (Kamvar & Harris, 2009). The words that co-occurred with happy reflected two primary experiences of happiness: excited happiness and peaceful happiness. An instance of peaceful happiness was identified as a feeling sentence that contained the word "happy" along with a peaceful word (i.e., peaceful, relaxed, calm, and relieved), and an instance of excited happiness was identified as a feeling sentence that contained the word "happy" along with an excited word (excited, ecstatic, giddy, and elated). An examination of the ratios of excited happiness to peaceful happiness for successive 10-year age groups revealed the experience of happiness to shift steadily over the course of life. Expressions of excited happiness decreased with age, whereas expressions of peaceful happiness increased with age.

We then conducted a survey amongst 380 eighteen to seventy-eight year olds corroborating this effect: happiness was more closely associated with feeling excited amongst younger people, whereas happiness was more closely associated with feeling peaceful amongst older people.

As a further test of whether feeling excited and peaceful differentially translate into experiences of happiness depending on age, we next conducted a laboratory experiment in which the excitement and peacefulness felt by participants was manipulated and subsequent happiness was measured. Specially, participants were made to feel excited or peaceful by listening to either an exciting or peaceful version of the song, "Such Great Heights." The results revealed that younger adults felt happier when they felt excited than when they felt peaceful, whereas older adults felt happier when they felt peaceful than when they felt excited. This suggests that happiness is indeed derived from distinct emotional experiences that depend on where one is in his or her life course.

To test for the underlying mechanism, we next conducted an experiment manipulating whether participants were focused on the present moment. We then measured the extent to which they define happiness as feeling excited and the extent to which they define happiness as feeling peaceful. In line with the findings in the previous studies, the results in the control condition revealed that younger adults defined happiness more as feeling excited than feeling peaceful, whereas older adults defined happiness more as feeling peaceful than feeling excited. Supporting our hypothesis that an increased focus on the present moment causes the shifting experience of happiness, younger adults in the present-focus condition defined happiness more as feeling peaceful than feeling excited, much like the older adults.

Finally, to explore the implications of this shifting experience of happiness on consumer behavior, we conducted a survey assessing the purchases younger and older adults reported to have made them happy. Research assistants blind to the hypotheses coded for whether each reported purchase was exciting (e.g., soccer shoes, Mountain Dew, Nintendo Wii), calming (e.g., yoga pants, Teavana herbal tea, bubble bath), or neither. The results showed that changes in how individuals experience happiness influence which purchases are deemed happy: younger adults were more likely to state exciting purchases than older adults, whereas the older adults were more likely to state calming purchases than the younger adults.

Giving Time Gives You Time

Zoë Chance, Harvard Business School, USA*

Cassie Mogilner, University of Pennsylvania, USA

Michael I. Norton, Harvard Business School, USA

Many of us feel we are victims of a “time famine” (Perlow, 1999), having too much to do and not enough time to do it. For example, parents are spending both more time working and more time with their children, yet still feel they are falling short (Bianchi, Robinson and Milkie, 2007)...if only there were a few more hours in a day. Given that our time is objectively constrained by a 24 hour day, and ultimately mortality, one important question is whether there are ways to feel like we have more time. We examine one way in which doing more can result in feeling less busy. In a series of experiments, we find that giving time to another person counteracts the time famine, making time feel more expansive and the future full of possibilities.

Volunteering time can benefit givers in multiple ways, from reducing depression (Musick, 2003), to improving physical health (Thoits and Hewitt, 2001), to delaying death (Oman, Thoresen and McMahon, 1999). Giving support to others lessens anxiety over one’s own troubles (Krause, 1986) and giving a massage can lower stress even more than receiving one (Field et al, 1998). In short, volunteering can make people healthier and happier. But no studies have yet explored the effect of giving time on time perceptions. One might expect that since adding obligations reduces the time available for other things, any additional activities, including volunteering, would amplify time-related stress. We anticipate the reverse outcome for two reasons: if giving time is meaningful, it could encourage a long-term perspective; also, precisely because donating time is indicative of a surplus of time and energy, one might infer such a surplus even when volunteering is obligatory.

In our first study, participants spent five minutes either giving time or wasting time, then answered a series of time perception questions. Those in the giving time condition selected one of four gravely ill children, read a short biography written by the child’s mother, then wrote a letter to that child—which we subsequently mailed. Those in the wasting time condition counted the “e”s in a long passage of nonsense text. Our dependent variable was endorsement of the time-focused statements from Carstensen and Lang’s

(1996) Future Time Perspective scale, e.g. “Most of my life lies ahead of me.” Consistent with our hypothesis, we found that individuals who had given time felt they had more time than did those who had wasted it.

Study 2 was conducted in two parts. In the morning, participants completed an online, between-subjects questionnaire which included instructions to either spend time doing something for themselves or for any other person at some point during the day. We gave no further directions regarding how this time should be spent. In the evening, participants completed a follow-up survey asking how they had spent their time, how much time they had spent, and how they felt about it, as well as measuring future outlook. We found that regardless of the amount of time spent, those who given time to another person felt that they had more time in general than those who spent time on themselves. They also reported the experience was less relaxing and enjoyable, but more meaningful and loving. These findings suggest that experiences which reduce time-related anxiety do not necessarily need to feel relaxing or fun. Additionally, those who gave time to someone else were more inclined to say it didn’t feel like much time at all. This result dovetails with our finding that they also reported that the future feels longer—if you have plenty of time ahead of you, then an hour isn’t much at all.

In a follow-up study, we asked participants to remember a previous instance in which they had spent time doing something for someone else or for themselves. As our dependent variable, we used a resource slack measure (Zauberman and Lynch, 2005) of perceived free time. We found that, consistent with our previous results, those who remembered investing an hour or two felt they had more free time if they recalled time spent on another. However, those who remembered investing months or years (e.g. going to college or caring for a sick relative) reported having more free time after remembering something they had done for themselves. We confirm in this experiment that spending time on others can increase the amount of time you feel you have available, but that this effect is limited to small amounts of leisure time, rather than major volunteer commitments which constrain other important obligations and pursuits.

In our next study, we tested the boundaries of our effect by comparing giving time to getting time, and we explored a behavioral consequence of feeling like you have more time. In this experiment, participants either gave ten minutes (editing a high school student’s senior essay) or received 10 minutes (leaving the lab early). We then asked how much time they might want to devote to participating in future studies, and we followed up by measuring actual time spent. Those in the giving time condition reported having more spare time, intended to participate in more future surveys, and were marginally more likely to actually spend more time on surveys a week later. In a follow-up study, we showed the cyclical nature of the volunteering/busy-ness relationship. We first asked participants to complete a writing exercise that primed being busy or not being busy. Next, we offered them the opportunity to leave early or to spend fifteen minutes editing an essay, as in the previous experiment. Those who had been primed with being busy were less likely to give time to help someone else.

In sum, we find that spending time on another another person can make one’s life feel less busy, and that feeling less busy increases the likelihood of helping out. The converse is true as well: when feeling the pressure of a time famine, we are less likely to engage in socially supportive activities that could alleviate this stress.

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Instant Rationality: Reframing Intertemporal Choices

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Shane Frederick, Yale University, USA

Many anomalies in intertemporal choice have been observed, and these are often used to justify interventions in the marketplace, such as restrictions on what financial services are permitted. In this paper we argue that the evidence for these anomalies largely relies on a limited range of ways of asking intertemporal choice questions – or framings. As we show, in the vast majority of studies people make tradeoffs between *amounts* of money available at different delays, as in choosing between \$100 now and \$150 after one year (what we call a *Amount/Total* frame). This is not the only way to ask such questions, nor necessarily the most natural one. In the financial marketplace, for instance, tradeoffs are typically made in terms of interest rates (e.g., invest at 8%). Different frames naturally draw attention to some features of the choice task, and divert attention from others.

We conduct several studies in which people make tradeoffs framed in terms of (a) rates of interest earned (e.g., “receive 6% for each year you wait,” called the *Interest/Rate* frame), (b) total interest earned (“receive 12% in total,” *Interest/Total*), (c) amount earned per year (“receive \$20 for each year you wait,” *Amount/Rate*) as well as total amount (“receive a total of \$20,” *Amount/Total*). Within the studies several factors were varied such as discounting interval (ranging from 6 months to 10 years), magnitude (ranging from a few euros to \$70,000), and whether frames were presented singly or in combination (some were given two frames, to determine which is dominant).

We make four major observations. First, discounting is sharply reduced whenever information is given using an *Interest* frame relative to an *Amount* frame. The implied discount rate in the Interest frames is *much* closer to that obtaining in the financial marketplace, and in this way the Interest frames make people “more rational.” Second, the magnitude effect (the finding that the discount rate is higher for smaller amounts of money) is also sharply reduced in the Interest frames. For small-to-moderate amounts of money, people are much more patient in rate frames, but as amounts of money grow, Rate and Amount frames converge. Third, there is no hyperbolic discounting in the *Rate* frames. Instead, the pattern is either constant or even reversed (in the *Interest/Rate* frame). In general, the *Interest/Rate* frame shows people being more “rational” than any other frame, and the *Amount/Total* frame (the one typically employed in experiments) shows people being the least rational.

When comparing two-frame conditions to single frame ones, the results are nuanced (and our research is ongoing). The overall result, however, is that when the *Interest/Rate* frame is combined with either *Amount/Total*, or *Interest/Total* the resulting preferences are intermediate between the conditions making up the combination, but closer to the *Interest/Rate* frame. This suggests that the *Interest/Rate* frame is the “preferred one” which appears most reasonable to respondents. It is clear, nonetheless, that respondents are drawn to the secondary framing as well.

These studies are part of a larger series of studies investigating framing effects in intertemporal choice. We propose that one of the fundamental bases for irrationality in intertemporal choice is an *Amount* bias. When making intertemporal choices, people consider the amount to be returned at least partly independently of the rate of return. Because amounts grow with delay, and are greater when larger amounts are being discounted, this draws people towards the large rewards from large “investments.” This is a major determinant of the magnitude effect, and this effect is sharply reduced when any non-Amount frame is used. Moreover, since the amounts involved in the Total conditions grow with time, this also increases patience with longer intervals and produces hyperbolic discounting. When the amounts do not grow, as in any of the Rate conditions, hyperbolic discounting is virtually eliminated and often

even reversed. Finally, since people are familiar in their everyday life with Interest descriptions as the currency of intertemporal choice, these descriptions enable them to compare what we offer to what is offered in the financial marketplace, and so are much more likely to take a good financial decision.

Our results have implications for how such choices can be effectively framed to enable consumers to make the best choices. It is commonplace to treat the results from experiments as telling us about the “pure rate” of time preference, which is the rate at which consumers prefer to discount future utility. If this were the case we would expect that rate to be seen regardless of how discounting is assessed. Large variations as a function of framing suggest that no single frame can be treated as “correct,” and that by giving people information in different ways we can influence their preferences.

The Impact of Perceived Temporal Scarcity of Life on Perceived Temporal Distance to a Time in the Future

B. Kyu Kim, University of Southern California, USA*

Gal Zauberman, University of Pennsylvania, USA

James Bettman, Duke University

People often think about how they spend their time in terms of budgeting a valuable resource. We ask, do they also treat time as a finite resource when they perceive time? In this research, we suggest that when people anticipate the subjective duration of a specified length of time, they conceive of time as a finite resource; perceiving time duration in the context of an upper bound of their remaining lifespan. That is, just as limited resources are perceived as more valuable (Dai, Wertenbroch, & Brendl, 2008; King, Hicks, & Albdelkhalik, 2010), subjective perception of future duration (e.g., one month) depends on how many more years a person expects to live. Given the role of subjective perceptions in intertemporal choices, we further investigate the implications of such relationship between expected lifespan and time perception for consumer impatience in making intertemporal tradeoffs. Specifically, we examine whether people who anticipate a shorter life span will be more impatient, because future duration (e.g., waiting time until the receipt of delayed rewards) is perceived to be longer, relative to their total years of life remaining.

In Study 1, participants' perceived lifespan (long vs. short) was manipulated by providing information on the life expectancy of people living in the U.S. (age 80) versus informing them of when brain function begins to deteriorate (age 40; Bartzokis et al., 2009). Participants then marked the point where they are currently in life on a continuous line representing their life-span (from zero to either age 80 vs. age 40). Results indicated that perceived life-span (how much of the line participants already ‘used up’) significantly influenced anticipatory time perception (i.e., those who perceived a longer life-span judged 1-month and 3-month durations to be shorter than those who perceived a shorter life-span) and impatience in intertemporal decisions (i.e., those who perceived a shorter life-span discounted the value of delayed outcomes at a higher rate).

In Study 2, perceived life-span was manipulated by asking participants to fill out space on a pie chart (reflecting either age 80 or 40) rather than to place a mark on a continuous line. This change was designed to control for a possible response scale artifact (i.e., the life-span manipulation and the time perception response scale share the same physical nature and could have induced consistent results). The impact of perceived life-span on anticipatory time perception and impatience was replicated. Participants' self-reported anxiety and affective states were also assessed and did not explain the results.

In sum, by focusing on the construction of anticipatory time as a resource, we demonstrated that perceptions of the maximum amount of one's resource, their life-span, influenced anticipatory time perception and impatience in intertemporal decisions. These findings shed light on the intriguing nature of anticipatory time perception and its role in intertemporal preferences.

3.3 Individual Papers: Effects of Differing Mindsets on Emotions and Experiences

Room: Birch Room

Chair: Alison Jing Xu, University of Toronto, Canada

Abstract Mindsets Promote Sensitivity to Affect

Clayton R. Critcher, University of California, Berkeley, USA*

Melissa J. Ferguson, Cornell University, USA

As a consumer peruses an ad for a cruise vacation, is his attention captured by the affect-rich depictions of tropical beaches, or does he focus on the less evocative details of the package? As a restaurant patron progresses down the buffet line, is she driven by her affective reaction to the food as she decides how much to pile on, or is she sensitive to the steep by-the-pound price or other such concerns?

The answers to these and related questions require an understanding of when people are sensitive to affect. Most researchers who have approached this question have focused on the affective state of the consumer. For example, Niedenthal, Halberstadt, and Innes-Ker (1999) found that when people are experiencing an affective state, they are especially likely to attend to and categorize stimuli in more affective terms.

In this research, we suggest and find evidence that a non-affective, purely cognitive variable—the level (abstract vs. concrete) at which one construes the world—influences people's sensitivity to affect.

Although no past research has tested the impact of level of construal on sensitivity to affect, a number of literatures have hinted at a connection. First, according to Construal Level Theory (Liberman, Trope, & Stephan, 2007), desirability—an affective feature—guides decisions about psychologically distant stimuli, which tend to be construed more abstractly (e.g., Sagristano, Trope, & Liberman, 2002). Second, in the clinical psychology literature, abstract thinking has been associated with breadth, self-reflection, and emotional awareness, whereas low-level strivings are associated with concrete, non-affective goals (Emmons, 1992; Pennebaker, 1989). Third, according to fuzzy-trace theory (Reyna, 2004), gist-based representations include evaluations of stimuli as good or bad. As Rivers, Reyna, and Mills (2008) stated, “The valence component of gist is a central component of meaning associated with a stimulus” (p. 123). These disparate literatures suggest that a causal link between abstract thinking and sensitivity to affect is plausible. That is, when one considers the world at an abstract level (“That vacation offers a chance to take a break from it all”) versus a concrete level (“That vacation offers a chance to visit three islands and eat lavish meals”), one may be more attentive to and influenced by affect.

In Studies 1a, 1b, and 1c, participants completed an emotional Stroop task—a cognitive psychology measure that assesses one's automatic sensitivity to highly affective information. In the task, participants are presented with words that are written in different

color fonts. The participant must identify the font color; thus, it is unnecessary to attend to the actual word. Some of the target words are highly affectively valenced (e.g., pleasure, gruesome) and some affectively neutral (e.g., container, pewter). The longer it takes a participant to identify the font color on the valenced versus the neutral trials is an indication of that participant's automatic attention to affect.

In a Study 1a, participants' responses on the Behavioral Identification Form (BIF)—indicating a dispositional tendency to construe the world abstractly (versus concretely)—predicted a tendency to have one's attention automatically captured by highly-affective stimuli, $r(60) = .36, p = .004$. For the remaining studies, we modified the BIF to create abstract and concrete mindset manipulations. Such generalized abstract or concrete mindsets were induced by having participants repeatedly construe stimuli (e.g., "cleaning the house") in more abstract terms (e.g., "showing one's cleanliness") or more concrete terms, (e.g., "vacuuming the floor"), respectively. Establishing that level of construal *causes* one's sensitivity to affect, those placed into an abstract mindset had higher emotional Stroop scores than those placed into a concrete mindset or no mindset (Study 1b). In Study 1c, we established that it was the affective component of the target words that captured the attention of those in an abstract mindset. Participants primed to construe the target words in non-affective terms no longer showed the effect.

The final two studies expanded on these findings to test whether abstract mindsets have a significant impact on consumers' mood and behavior. In Study 2, we relied on past findings that one's mood shifts to match affectively-charged stimuli in one's environment, even when observed non-consciously (Chartrand, van Baaren, & Bargh, 2006). Participants were first placed into an abstract or concrete mindset before being exposed—subliminally and thus outside of their awareness—to a series of either highly positive or highly negative stimuli. Afterward, participants reported their current mood. Although those induced to think concretely were not impacted by the subliminal presentations, the mood of those in an abstract mindset shifted to match the valence of the stimuli they had unknowingly observed. Thus, sensitivity to affect not only guided attention but impacted participants' experience.

In Study 3, we tested whether this greater sensitivity to affect would have behavioral consequences. We predicted that the consumption behavior of those in an abstract (versus concrete) mindset would follow from their affective response to the stimulus. Participants participated in what was ostensibly a study of "consumers' preferences." After being induced into an abstract or a concrete mindset, participants were asked to sample chocolate candies while completing an accompanying "product rating task." Unbeknownst to participants, the bowl of candies was connected to a scale, permitting assessment of how many candies participants consumed during the task. As predicted, consumption behavior was predicted by their affectively-based attitudes toward chocolate candies (measured on a pretest) when participants were in an abstract mindset, $r = .26$, but not while in a concrete mindset, $r = -.02$.

Across these studies, we found a consistent causal relationship between abstract thinking and sensitivity to affect. Given the great number of variables known to influence consumers' level of construal—such as physical distance (Fujita, Henderson, Eng, Trope, & Liberman, 2006), social distance (Livitan, Trope, & Liberman, 2008), temporal distance (Liberman, Sagristano, & Trope 2002), and power (Smith & Trope, 2006)—future research may find that many of these variables also impact consumers' sensitivity to affect. We hope our findings here are merely a first effort to bridge two major psychological literatures concerning *level of construal* and *affect*, which have heretofore developed largely independently.

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Shall I Tell You Now or Later? The Effect of Product Information Order on Experiential Product Evaluation

Keith Wilcox, Babson College, USA*

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Dhruv Grewal, Babson College, USA

Numerous studies have demonstrated that product information, such as its price or brand name, learned prior to experiencing a product can affect consumers' expectations, which can, in turn, influence their product evaluations (Klaaren, Hodges and Wilson 1994). Less is known, however, how learning such information after the initial product experience affects consumers' evaluations. This current research examines whether product information learned before or after sampling an experiential product will lead to differences in consumers' evaluation of the experience.

Experiential products have affective, sensory and informational components (Nowlis and Shiv 2005). Importantly, when consumers sample experiential products, the affective component carries more weight than the informational component (Biswas, Grewal and Roggeveen 2010). One of the key differences between these components is that the affective and sensory components are based on reactions that arise from the experience and occur automatically; whereas the informational component is based on controlled processes (Nowlis and Shiv 2005). Based on assimilation and contrast theory (e.g., Stapel and Winkielman 1998), we expect the automatic formation of affective evaluations to result in differences in affective evaluations when information is received before or after a product is experienced.

One of factor that decides whether contextual information results in assimilation or contrast is how distinct the information is from the target being judged (Stapel and Winkielman 1998). Distinctness is often determined by the extent to which the information is evaluated with the target being judged or presented separate from the evaluation. For example, Martin and Seta (1983) showed that if descriptions of two persons were given and participants were asked to read about both before forming their evaluations, the impression of the target person was assimilated towards the contextual person. In contrast, when participants were asked to form separate evaluations of the target person and the contextual person, the impression of the target was contrasted with the context. This is because the separate evaluations lead the context to serve as a comparison standard when judging the target.

For somatosensory experiences if information is received prior to experiencing the product, then we expect assimilation of the experience towards the product information. This is because, knowing that they will be experiencing the product immediately, people are not expected to judge the product on the product information alone. Instead, judgments are expected to occur after both the product information and the experience have occurred resulting in judgments being assimilated towards the contextual information. However, if product information is received after the experience, then we expect contrast to occur for affective judgments. This is based on the fact that affective judgments occur automatically (Nowlis and Shiv 2005). After experiencing the product, the consumer is expected to automatically think about how much they liked the taste. This will lead subsequent contextual information to be distinct from the experience and serve as a comparison standard.

More formally, we hypothesize that when product information is presented before sampling an experiential product, it will result in an assimilation effect such that consumers' affective evaluations of the experience will be more (less) favorable when the information signals a good (poor) experience. However, when the same information is presented after sampling, it will result in a contrast effect for affective evaluations such that consumers' affective evaluation of the experience will be less (more) favorable when the information signals a good (poor) experience.

We test this prediction in three studies. In study 1, participants were asked to sample a piece of chocolate before or after being told the chocolate was from either Switzerland (favorable experience) or China (unfavorable experience). Even though the sampled chocolate was the same in all conditions, consistent with an assimilation effect, participants' affective evaluation was higher when they thought the chocolate was from Switzerland (vs. China) prior to sampling. Interestingly, and in line with our prediction, when the country-of-origin was presented after sampling, but before the formal evaluation, participants' affective evaluation was higher when they thought the chocolate was from China (vs. Switzerland).

The second study replicated the findings using price as the product information. Specifically, we found that when price was presented prior to sampling, participants' affective evaluation was higher when they thought the chocolate was expensive (vs. inexpensive). However, when the price was presented after sampling participants' affective evaluation was higher when they thought the chocolate was inexpensive (vs. expensive). Interestingly, when participants were given a price discrediting cue, price had no effect on participants' evaluations.

In the third study, we only focused on the after sampling conditions. The study was a field experiment conducted in a liquor store where customers participated in a blind wine tasting. After tasting the wine, they were told that the wine had a favorable or unfavorable country-of-origin (Italy vs. India). Consistent with previous studies, participants evaluated the same wine more favorably when they were instructed after sampling that it was from India (compared to Italy). Interestingly, participants were more likely to select \$5 off the wine as a gift for participating when they were instructed that the wine was from India. Thus, we link our findings to actual purchase intent in a real-world setting.

These results have important implications for both retailers and market researchers who are actively engage in sampling programs in a host of sensory categories ranging from food, beverages, videos, music and perfumes. More specifically, for high-end products, our results suggest that it is important to convey that information (e.g., price, brand, country-of-origin) prior to the participant sampling the merchandise. The reverse order would be preferable for products that have less favorable cues (e.g., a wonderful tasting chocolate that is made in China).

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Happiness: How Different Dimensions of Happiness Are Affected by Different Attributes of the Purchased Good

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In the last decade, the relation between purchases and happiness has received increased attention from academics and the popular press (Flatow, 2009; Nicolao, Irwin, & Goodman, 2009; Pelletier, 2009; Weiner, 2008). A common finding is that experiential purchases (e.g., a vacation) are better at advancing happiness than are material purchases (e.g., a handbag) (e.g., Nicolao, et al., 2009; Van Boven & Gilovich, 2003). However, important questions remain—(1) Do experiential purchases *only* lead to happiness directly related to the product (i.e., product-related happiness), or do they also lead to more global (i.e., overall) happiness? (2) Are there conditions in which material purchases lead to more happiness than do experiential purchases?

Consumer researchers have used the term “happiness” rather loosely. Upon closer examination of previous studies, we observe that researchers (e.g., Nicolao, et al., 2009; Van Boven & Gilovich, 2003) have primarily focused on happiness that is directly related to the actual good (which we refer to as *product-related happiness*), as opposed to global, overall happiness. Given the many benefits of global happiness, (e.g., better health, longer life, success at work; see Seligman, 2002 for review), it is surprising that researchers have not examined the impact of experiential versus material purchases on global happiness.

We draw upon the happiness and social relationships literatures to argue that although experiential goods are better than material goods at cultivating *product-related happiness* (Van Boven & Gilovich, 2003), they are not superior at cultivating *global happiness*. We argue that consumers’ global happiness is impacted by the degree to which goods foster social connections between individuals (as opposed to simply being experiential vs. material).

We know that healthy social relationships are of utmost importance in the cultivation of global happiness. Specifically, Diener and Seligman (2002) concluded that healthy social relationships are necessary in generating happiness. Additionally, intimacy (McAdams & Bryant, 1987) and participation in social activities (Argyle & Lu, 1990) have been found to be associated with happiness. We also know that individuals place importance on the acquisition of goods (material and experiential) in their pursuit of happiness (e.g., Csikszentmihalyi, 1999; Pelletier, 2009; Richins & Dawson, 1992). What we do not know is how social connections/relationships might influence experiential and material goods’ ability to generate global happiness.

We argue that goods (whether they be experiential or material) can vary in the degree to which they encourage social connections. We refer to *social* goods as those whose consumption (in the case of material goods) or experience (in the case of experiential goods) foster social connections (e.g., tennis racket, family vacation), whereas *solo* goods are those that do not foster (or foster very little) social connections (e.g., book, vacation to soul search).

We hypothesize that (1) regardless of their nature (material or experiential), social goods will generate more happiness than solo goods, and (2) the level of social connections fostered by the good will mediate that effect.

To test our hypotheses, we conducted an experiment with 104 participants who were randomly assigned to one of four conditions: 2 (nature of purchase: material vs. experiential) x 2 (sociability of the good: solo vs. social). Participants were given instructions of what constitutes a material (or experiential) purchase that is consumed/experienced solo (or socially). They were then asked to recall and write about a personal purchase that reflected the condition they were in. Next, participants answered manipulation check questions (e.g., To what extent did you feel connected to other people because of that purchase?), questions related to product-related happiness (e.g., When you think about this purchase, how happy does it make you?), and global happiness (e.g., In general, I consider myself... (Not a very happy person – A very happy person)). Participants also completed a series of control measures (e.g., materialism, social desirability, desire for the purchase, satisfaction with the purchase, and quality of the purchased good.).

We performed two important analyses prior to testing our hypotheses. First, our manipulation check showed that participants in the social condition reported feeling more socially connected than did those in the solo condition ($M_{social} = 4.83$ vs. $M_{solo} = 4.04$; $F(1, 103) = 6.42$, $p = .01$). Thus, the manipulation was successful. Second, replicating findings from previous research, we found that experiential purchases generated significantly higher levels of product-related happiness ($M = 5.29$) than did material purchases ($M = 4.53$; $F(1, 103) = 14.95$, $p = .001$). No main effect was found for solo versus social purchases. This preliminary analysis shows that experiential purchases are superior to material purchases in generating product-related happiness.

Our results supported our hypotheses. Specifically, social purchases advanced global happiness significantly more ($M = 5.63$) than did solo purchases ($M = 5.19$; $F(1, 103) = 5.12, p = .03$). Moreover, as hypothesized, no effect was found for material versus experiential purchases. Importantly, we found that the degree to which a good fosters social connections fully mediated the effect of type of good (solo vs. social) on global happiness—the previously significant main effect of purchase (solo vs. social) on global happiness became nonsignificant when social connectedness was controlled for ($F(1, 103) = 2.57, p = .11$).

The following picture emerges from our research: Experiential purchases are better than material purchases at advancing *product-related happiness* (replicating Van Boven & Gilovich, 2003). However, experiential purchases have no advantage over material purchases in generating *global happiness*. In fact, not all experiential goods cultivate global happiness, and interestingly, not all material goods impede individuals' progress towards global happiness. The empirical evidence we presented shows that both experiential and material purchases can cultivate global happiness through their ability to foster social connections. In sum, purchases that foster social connections are more likely to advance global happiness than are those that are consumed/experienced in a solo manner.

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Bolstering versus Counterarguing Mindsets: Implications for the Effectiveness of Persuasive Messages

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People who encounter a persuasive communication might either (a) generate thoughts that bolster the communicator's point of view or (b) attempt to refute the implications of the communication. These dispositions could obviously depend on individuals' prior agreement or disagreement with the point of view being expressed. However, they could also be influenced by a mindset that is activated by the behavior that participants performed before the persuasive communication is encountered (Wyer and Xu 2010). We propose that making supportive elaborations in one situation will give rise to a bolstering mind-set, which increases people's disposition to generate supportive thoughts about an unrelated persuasive communication (e.g., a commercial advertisement) they receive subsequently and, therefore, increases the communication's effectiveness. In contrast, making counterarguments in one situation would give rise to a counterarguing mind-set, which increases people's disposition to generate arguments against the validity of a message they receive later and, therefore, decreases its effectiveness. However, when a persuasive communication is difficult to refute, a counterarguing mindset that increases participants' awareness of this difficulty could increase their perceptions of the communication's validity and, therefore, could increase its effectiveness rather than decreasing it. Three experiments evaluated these hypotheses.

Participants in experiment 1 performed two ostensibly unrelated tasks. First, they were asked to list their thoughts about each of three propositions. In one condition, the propositions were worded in such a way that led participants to agree with them (e.g., "Reading enriches the mind," etc.) In the second condition, they were worded in a way that led participants to disagree with them ("Reading is bad for the mind," etc.). Participants listed similar thoughts about the issue in these two experimental conditions regardless of how the propositions were worded. However, the thoughts were likely to support the propositions in the first case and, therefore, to induce a bolstering mind-set, but were likely to oppose the propositions in the second case and to induce a counterarguing mind-set. In the third, control condition, participants listed thoughts about neutral topics (e.g., the pyramids of Egypt). Then participants read a

commercial ad about a vacation spot that was either very favorable or moderately favorable. Participants then rated the attractiveness of the vacation spot and the persuasiveness of the ad. Finally, they wrote down the thoughts they had about the ad.

The effect of mindset was significant and independently of the favorableness of the vacation spot. Specifically, inducing a counterarguing mindset decreased participants' evaluations of the vacation spot and the persuasiveness of the ad, whereas inducing a bolstering mindset nonsignificantly increased their evaluations of the vacation spot and persuasiveness of the ad. Analysis of thoughts showed that participants who acquired a counterarguing mindset listed more negative thoughts and fewer positive thoughts than control participants did. However, participants who acquired a bolstering mindset listed nonsignificantly more positive thoughts and fewer negative thoughts. Moreover, the type of thoughts listed mediated the influence of mindsets on evaluations of the vacation spot.

Experiment 2 identified a boundary condition of the proposed mind-set effects. Bolstering and counterarguing mindsets were induced as in Experiment 1. Then, both participants in mindset conditions and control participants read an appeal from UNICEF for donations to help disadvantaged children in Africa get an education. Participants then reported their intentions to make a monetary donation and decided how much they would be willing to donate. Because (a) donation appeals usually urge individuals to engage in altruistic behaviors that have socially desirable implications, and (b) the communicators have no intrinsic self-interest in the success of persuasion, we expected that recipients would find it difficult to generate arguments against the appeal's validity. Therefore, we expected that inducing a counterarguing mindset would increase participants' perceptions of the appeal's validity and would consequently *increase* its effectiveness rather than decreasing it. Results confirmed these expectations. Participants who adopted a counterarguing mind-set reported higher donation intentions and were willing to donate more money than participants in the bolstering mind-set and control conditions, which did not differ from each other.

Experiment 3 examined whether covertly generate arguments for or against a message without expressing them overtly would be sufficient to activate a general disposition to elaborate or counterargue. Politically independent participants were randomly assigned to one of four conditions. In two *speech* conditions, participants first watched either (a) a 10-minute video of Barack Obama's speech on his economic rescue plan in the 2008 presidential campaign or (b) a comparable segment of a speech on economic policy by John McCain. In a third, *debate* condition, participants watched a 10-minute video of the third Presidential debate between John McCain and Barack Obama on their proposed economic plans. In *control* conditions, participants were not exposed to any video. Then, all participants watched a video-taped speech by the president of Toyota that was intended to increase consumers' confidence in Toyota products' safety. After receiving these materials, participants reported their attitudes toward Toyota.

Evaluations under the two speech conditions did not differ from one another and were combined and compared to evaluations under debate and control conditions. The overall effect of political TV programs on the evaluations of Toyota was significant, and was attributable to the fact that evaluations under debate conditions were appreciably less than evaluations under control conditions, whereas evaluations under speech conditions were nonsignificantly greater.

Analysis of thoughts towards Toyota showed that political TV programs indicated that these thoughts varied as expected. Specifically, the overall effect of the political TV program on the relative favorableness of thoughts (i.e., No. of positive thoughts – No. of negative thoughts) about Toyota was significant, and was attributable to the fact that participants generated relatively more negative thoughts about Toyota after hearing the debate, and relatively more positive thoughts after hearing a speech, than control participants did. A Sobel test confirmed the mediation role of thought favorableness on the evaluations of Toyota.

In summary, the studies reported above showed that generating counterarguments in one situation activated a mindset that disposed them to generate more negative thoughts towards subsequent persuasive messages that they received, and therefore, decreased its effectiveness. This effect was reversed when the persuasive message was difficult to refute. Moreover, covert counterarguing was sufficient to activate the mindset. Although the effects of bolstering mindset were in the expected direction, they were not significant. This suggests that making supportive elaborations was the default strategy that participants were likely to employ spontaneously in response to an ad (Gilbert 1991). As a result, inducing a bolstering mindset had little additional effect.

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3.4 Individual Papers: It's Not Me, It's You: Consumer Attributions

Room: Oak Room

Chair: Ayalla Ruvio, Temple University

The Content of a Brand Scandal Moderating the Effect of Thinking Style on the Scandal's Spillover

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Product-harm crises, or brand scandals, significantly decrease consumer preferences and purchases for the scandalized brands and their families (Ahluwalia, Unnava, and Burnkrant 2000, Dawar and Pillutla 2000) as well as their competing brands (Roehm and Tybout 2006). Given the devastating effects of product-harm crises and the increasing number of product recalls recently, we investigate how the specific content of a brand scandal moderates the effect that thinking style (Nisbett et al. 2001, Choi et al. 2003) has on the scandal's spillover. We propose that whether the nature of the brand scandal is extrinsic or intrinsic to the product's performance and quality (Zeithaml 1988, Huber, Vogel, and Meyer 2009, Pullig, Netemeyer, and Biswas 2006) determines the degree to which analytic and holistic thinkers pay attention to the negative information, thus resulting in mitigating or aggravating the effects of scandal spillover.

Across three experiments, we show that message content highlighting information consistent with a person's distinct thinking style receives more attention in evaluation, thus leading to a specific judgment bias (Petty and Wegener 1998, Lavine 1996, Wheeler, Petty, and Bizer 2005). We demonstrate that holistic thinkers are more susceptible to brand scandal spillover when the nature of the brand scandal is extrinsic to the scandalized brand (Experiment 1a), whereas analytic thinkers become more susceptible when it is intrinsic (Experiment 1b). In Experiment 2 and 3, we manipulate the scandal content as a factor and demonstrate its moderating role on the effect of thinking style on scandal spillover.

In Experiment 1a, 376 undergraduates were randomly asked to complete sentences in a short story about a trip to a city using independent pronouns to activate analytic thinking mode or interdependent pronouns to activate holistic thinking mode (Kühnen et al. 2001). After reading the brand scandal news story about McDonald's' misleading customers about the nutritional content of their burgers (Roehm and Tybout, 2006), the participants indicated their thoughts on the likelihood of a competing brand, Burger King, misleading its customers. One way ANOVA revealed a significant effect of thinking styles ($F(1,376)=6.402, p = .012$) on the

likelihood of the scandal spillover. Contradicting to the results of Monga and John (2008), these results show that holistic thinkers were more susceptible to the scandal spillover than analytic thinkers ($M_{\text{holistic}}=6.88$, $M_{\text{analytic}}=6.39$).

In Experiment 1b, 30 students were given a picture of a campfire sing-along and randomly asked to describe the scene of the picture to elicit a holistic thinking mode or find objects hidden in the same picture to elicit an analytic thinking mode (Mong and John 2008). After the thinking style prime was given, they read a fictitiously created Colgate's intrinsic brand scandal newspaper article (i.e., Antifreeze chemical found in Colgate toothpastes and severe injuries reported) and expressed their opinions on the likelihood of scandal spillover to a competing brand, Crest. Replicating the results of Monga and John (2008), one way ANOVA revealed that, with this intrinsic brand scandal content, students in the holistic condition were less susceptible to the scandal spillover than students in the analytic condition were ($F(1, 28)=3.918$, $p < .058$, $M_{\text{holistic}}=4.29$, $M_{\text{analytic}}=5.44$)

In experiment 2, 45 students were asked to read a fictitiously created Sony's intrinsic (Sony's laptops have battery problems causing severe burns from exploding) vs. extrinsic (Sony's frequent severe violations of environmental protection laws) brand scandal newspaper article, and expressed their opinions on the likelihood of spillover to a competing brand, LG. Then they were asked to indicate the extent of agreement to the ten item holistic scale that measures chronic differences in holistic tendency (Choi et al. 2003). A 2(content: intrinsic vs. extrinsic) \times 2(holism: low vs. high, median split) between-subjects design ANOVA yielded a significant content \times holism interaction ($F(1, 41)=20.839$, $p < .001$). Planned contrasts revealed that those with a low holistic tendency revealed a higher likelihood of brand scandal spillover with the intrinsic content ($F(1, 22)=15.625$, $p = .001$, $M_{\text{extrinsic, low holistic}}=3.00$, $M_{\text{intrinsic, low holistic}}=4.67$), whereas those with a high holistic tendency showed a higher spillover likelihood for extrinsic content ($F(1, 19)=6.942$, $p = .016$, $M_{\text{extrinsic, high holistic}}=4.75$, $M_{\text{intrinsic, high holistic}}=3.33$). Holistic tendency was significant on the spillover likelihood both for the extrinsic ($F(1, 25)=13.344$, $p = .001$) and intrinsic content ($F(1, 16)=10.667$, $p = .005$). Using a continuous measure of holism, the regression analyses confirmed the significant content \times holism interaction, and the subsequent regression also verified significant holism effects for both extrinsic and intrinsic content.

In Experiment 3, 347 undergraduates were randomly primed for holistic versus analytic thinking styles by filling in proper pronouns in a trip to a city story as in Experiments 1a. The news story used for intrinsic content is about a product defect of Nike's new shoes that can cause serious ankle and knee injuries. The participants in the extrinsic content condition read a water pollution scandal regarding Nike athletic shoe factories (Roehm and Tybout (2006)). After reading the articles, the participants revealed their opinion about the likelihood of a competing brand, Adidas, 'new shoes' having physically harmful product defects (intrinsic) or causing water pollution (extrinsic content). A 2(content: intrinsic versus extrinsic) \times 2(thinking styles: holistic versus analytic) between-subjects design ANOVA yielded a significant content \times thinking style interaction ($F(1, 342)=13.105$, $p < .001$). As hypothesized, follow-up contrasts showed that the extrinsic scandal spills over to the competing brand when people are primed to think holistically ($F(1, 108) = 9.244$, $p=.003$, $M_{\text{extrinsic, analytic}}=3.948$ vs. $M_{\text{extrinsic, holistic}}=4.635$). When the nature of the scandal is intrinsic to the product, the spillover is more likely to occur when people are primed to think analytically than holistically ($F(1, 234) = 4.174$, $p=.042$, $M_{\text{intrinsic, analytic}}=4.446$ vs. $M_{\text{intrinsic, holistic}}=4.121$). The scandal content effect was significant for both holistic thinkers ($F(1, 165)=6.063$, $p = .015$) and analytic thinkers ($F(1, 177)=7.090$, $p = .008$). Through Experiment 2 and 3, we confirmed the significant interaction effect of content and thinking style on scandal spillover.

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Uniform(ity)

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From schools to careers, the uniform has reached its standardized sleeve into countless social structures. However, there has been little research investigating the consequences of uniforms, especially from a marketing perspective. How does the presence of a uniform on an employee affect consumers' psychological and behavioral reactions to a service experience? Research on uniforms generally focuses on medical uniforms and school uniforms, and there is much controversy in both debates. In the business environment, it has been suggested that uniforms make services more tangible (Solomon 1985) and enact implicit service contracts (Rafaeli 1993) but there is an extreme paucity of research on more specific psychological and behavioral consequences. We address this paucity in three studies and find that employee uniforms have direct effects on responses to poor service, attributions of causality, and judgments of employees.

Study 1 sought to examine the consequences of poor service from a uniformed versus non-uniformed employee on attribution of causality, emotion, and behavioral intentions. Seventy-four participants were told to imagine themselves in a scenario where they are working with a group in a business school study room when a staff member removes them from the room because they did not have it officially reserved, despite the fact that the room would otherwise be empty. Following the scenario, participants were shown pictures of three people and were told that all were on duty as business school staff members that day, and that the staff member from the scenario is circled. The staff members were either all pictured wearing identical "Staff" polo shirts or wearing casual shirts. Participants were then asked a series of questions about their reactions. We first asked participants to attribute causality of the incident to the staff-member, the study-group, the business-school, and/or the circumstances. As expected, uniforms lead to more attributions of causality to the school than non-uniforms ($p=.02$) and less attributions to the staff member ($p=.01$). We then asked how angry the incident would make them and found that poor service from a non-uniformed employee would make consumers marginally more angry than the same poor service from a uniformed employee ($p=.07$). Last, we asked four behavioral intention questions about how likely they would complain and spread negative word-of-mouth ($\alpha=.69$) and found higher intentions to do so following poor service from a non-uniformed employee ($p=.02$). The effects of uniform presence on anger and behavioral intentions were both significantly mediated by attributions to the staff member (95% CIs = .05-.48, .02-.42 respectively; Preacher and Hayes 2008). These results show that consumers respond better to poor service from a uniformed employee but attribute more causality to the company, which may have larger long-term consequences. In the next study, we investigate how service from a uniformed versus non-uniformed employee affects judgments of other service experiences and other employees.

In Study 2, 72 participants read the same negative scenario but were then told to imagine themselves in a separate scenario of ambiguous valence, where they were students in a class and a staff member came and fixed a technology problem with some difficulty. Both scenarios were presented with identical sets of three pictures of employees wearing either uniforms or casual clothes but a different staff member was circled in each scenario. Participants were then asked how competent, unhelpful, pleasant, and nice they found the staff member circled in the second scenario. These items were reversed-coded when appropriate and combined into an index of staff-member positivity ($\alpha=.72$). Drawing from the inclusion/exclusion model of assimilation and contrast (Bless and Schwarz 2007), we hypothesized that participants whose original poor service experience involved a staff member wearing a uniform would then assimilate this negativity with the second employee pictured with a uniform. In the other condition, non-uniformed employees would be contrasted against each other as reference points. This would result in the ambiguous service being perceived as

more negative when the employees from both scenarios were pictured in uniform than pictured without a uniform. Data supported this hypothesis ($p=.012$). In the next study, we look at whether uniformed employees are dehumanized, a result that may be related to those observed in studies 1 and 2.

In Study 3, 66 participants saw pictures of three people and were told that they are typical support-staff employees, and the experimenters are interested in “impressions of them and others like them in general.” As before, the employees were either pictured in uniforms or casual clothes. Participants then completed the Haslam et al. (2005) dehumanization scale, where they were asked the extent that 32 traits are descriptive of the average business school employee. The 32 items were classified by Haslam et al. as either low or high in desirability, “uniquely human,” and “human nature.” For example, a trait that is high in all three categories is ambition and a trait that is low in all three categories is timidity. Haslam argues that although the uniquely human traits are useful for differentiating us from other species, it is the human nature traits that capture the true extent of our humanness, and people who are not judged as possessing them are “dehumanized”. As expected, employees pictured in uniforms were judged as less possessive of human nature traits ($p=.015$). In other words, they were dehumanized.

We find that uniformed employees are subject to dehumanization, assimilation of judgments amongst each-other, more attribution to the company, and less anger and behavioral intentions following poor service. These findings extend our understanding of the consequences of uniforms on judgments of service experiences and service providers. They imply that companies prone to service failures should consider abandoning the uniform, because it leads to long-term negative consequences in judgments of other employees and company-causality that probably outweigh short-term positive consequences of immediate emotional and behavioral reactions. We have several experiments planned for the next six months that will further explore the specific processes and interactions of these effects.

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Nice Guys Finish Last and Guys in Last Are Nice: Heuristic Clash of Altruism and Self-Benefit

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Formal rationality dictates a dissociation between actors' character and motives and the random or uncontrollable events that befall them. When two actors behave identically and one actor unexpectedly or randomly benefits from the act while the other does not, there are no rational grounds for attributing different qualities and motives to the two actors. The first actor is not better, kinder, or anything else—he is merely luckier. Several major religions, on the other hand, teach that good actions are related to good fortune. For instance, the phrase “you reap what you sow” appears in several major religious texts. If people believe these maxims, then they should perceive a positive relationship between goodness of heart and good fortune.

We challenge both these perspectives and theorize that people heuristically perceive a *negative* relationship between goodness of heart and good fortune, and this heuristic leads to two judgment biases. We predict that altruistically motivated prosocial actors are judged less likely to benefit from their acts compared with selfishly motivated actors (“Nice guys finish last”) and that prosocial actors who benefit from their acts are judged as less altruistically motivated compared with actors who do not benefit (“Guys in last are nice”)—even if the benefits are randomly determined, unforeseeable, or uncontrollable.

Our predictions are theoretically motivated by findings about the representativeness heuristic, also called the prototypicality heuristic (Cherniak 1984; Kahneman and Frederick 2002; Kahneman and Tversky 1972). Though these heuristics can be adaptive (Gigerenzer 2001), people's reliance on prototypes can lead them to ignore base rates and probability rules and to make erroneous causal judgments (Bar-Hillel and Neter 1993; Kahneman and Tversky 1972, 1973; Tversky and Kahneman 1983; Wells 1985).

We theorize that the prototype of altruistic acts invokes heuristic associations with sacrifice that render such acts incompatible with benefits to the actor. In other words, altruistically motivated prosocial actors help others without expecting or hoping for anything in return. If the actor benefits, it is not so altruistic after all. This may not be a poor heuristic in general, as most altruistic acts do involve sacrifice. We propose, however, that it can lead to irrational conclusions.

Four studies tested our predictions for both individual and corporate prosocial actors. In Study 1, participants read about a donor to a charity raffle held by a professional football team in which donors could win dinner with the team players. The donor was described as either altruistically or selfishly motivated. Charity raffles are randomly determined, so rationally, the altruistically and selfishly motivated donors are equally likely to win. However, participants judged the altruistically motivated donor as less likely to win than the selfishly motivated donor. It appears that participants had difficulty reconciling altruistic motivations with benefits to the actor.

Study 2 tested the reverse. Participants read about the raffle and were told that the donor either won or did not win. Rationally, one should not ascribe different a priori motivations to the donors based on the random outcome, yet participants judged the winning donor as more selfishly motivated than the non-winning donor.

The next two studies tested our predictions in a corporate context. In Study 3, participants read about a company that makes snow removal supplies. The company implements an environmentally friendly manufacturing change such that its yearly manufacturing costs are the same before and after the change, but implementing the change requires a significant one-time expenditure. Because of the costly change, the company could experience a profitable year if and only if snowfall in the area is unusually high the following winter, beyond what was expected. The company's decision to implement the change was described as either altruistic or selfish. Although snowfall is uncontrollable and unforeseeable, participants judged the altruistically motivated company as less likely to experience unusually high snowfall and thus less likely to profit.

Finally, in Study 4, participants were told that, in the winter following the snow removal supplies company's manufacturing change, snowfall in the area was unusually high, beyond what was expected, so the company still profited despite the cost of implementing the change; or that snowfall was unusually low. Participants judged the company as less socially responsible and ethically motivated when snowfall was unusually high and the company still profited.

In summary, four studies challenge both rational logic and widespread cultural and religious teachings that suggest a perceived positive relationship between goodness of heart and good fortune. For both individual and corporate prosocial actors, altruistically motivated actors were judged less likely to benefit from their deeds, and actors who benefitted were judged as more selfishly motivated, even when the benefits were randomly determined, uncontrollable, or unforeseeable. In other words, for prosocial acts, people perceive that nice guys finish last, and guys in last are nice.

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The Double Edged Sword: Consumers' Perception of Prideful Behavior and Product Evaluation

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Pride is an important emotion in consumer literature but has not been studied very much in this regard (Decrop & Derbaix, 2010). The little research that has been done has focused on pride as experienced by consumers. Within this context, consumers' pride was found to be associated with consumers' repurchase intentions (e.g. Louro, Pieters & Zeelenbrg, 2005; Soscia, 2007) and with and positive word-of-mouth behavior (Soscia, 2007). Louro and her colleagues, however, building on self-regulatory theory reported that consumers with high prevention pride were less likely to repurchase than those with high promotion pride, suggesting that the relationship between pride and repurchase intentions is contingent on the type of pride. Understudied are the effects of observed pride in others on the perceivers' evaluation of products. Research in sports contexts, for example, shows that seeing displays of pride in athletes is contagious for teammates and fans alike (e.g Decrop & Derbaix, 2010).

Our study explores the effects of different types of pride observed in others on the observers' evaluation of products. Further, we investigate various factors moderating the effects of observed pride on evaluation. Two broad categories of pride were primed: alpha pride (hubris) and beta pride (authentic pride). Hubris refers to pride based on the sense of self displayed in a self-aggrandizing or even arrogant way (e.g., "I am the best"), whereas authentic pride refers to the sense of self based on personal accomplishments (e.g., "I am proud of what I did") (e.g. Tracy & Robins, 2007). In Western society the former is regarded as a negative emotion, while the latter has a more positive connotation. Therefore, according to the valence approach to emotions (Bagozzi et al., 2000; Lerner & Keltner, 2000), one can expect that authentic pride would facilitate a positive product evaluation, while hubristic pride would lead to a negative evaluation.

Our experiment was conducted within the context of subjects processing experimental and control advertisements for the Apple Iphone 4G, six weeks before its launch. We presented 150 consumers with a description of a person using/owning the phone in one of three conditions (authentic pride, hubris, control) and asked them to evaluate the behavior of the protagonist as well as to evaluate the product themselves. In addition, the participants were asked to fill in a questionnaire that included the following constructs: envy, exhibitionism, self-esteem, and possessions as an extension of the self. These constructs were tested as moderators.

We found that authentic pride exists in two forms - - pride in achievements and feeling of self-worth - - and judged authentic pride in others mediates the effects of primed pride on product evaluations, but is moderated by self-esteem, the perception of possessions as an extension of the self, and exhibitionism. Mediated moderation effects were found for both forms of authentic pride. For hubristic pride, we found that judged hubris mediates the effects of primed hubris on product evaluations, but is moderated by envy, the perception of possessions as an extension of the self, and self-esteem. Mediated moderation effects were again demonstrated.

Among other findings, we note that either perceived authentic or hubristic pride leads to positive evaluations. Originally so-called deadly sins in literature and religion, in the sense of something considered a vice and to be avoided, both kinds of pride were shown to be virtuous in our study the sense of leading to positive product evaluations. Observed pride in others tends, in the West at least, to be a virtue, whereas observed hubris tends to be a vice in Western and Eastern cultures (e.g., Aaker and Williams, 1998). We find that both kinds of pride function to enhance product evaluation under certain conditions. Further, we found that self-esteem functions in opposite ways for pride versus hubris. Under pride, to the extent that self-esteem is enhanced, products are evaluated positively. Under hubris, the greater the fear or anxiety of failing in one's life projects, the greater the evaluation of products.

Our study demonstrates that observing pride in other people affects consumers' evaluation of products, contingent on the boundary conditions specified above. However, whereas under the pride condition consumers tend to associate positive evaluations of the product with positive evaluations of the protagonist in the prime (i.e., he was seen as accomplished, successful, confident), under the hubris condition, the evaluation of the protagonist in the prime becomes disassociated from the evaluation of the product. In other words, while the hubristic person was evaluated negatively (i.e., he was seen to be arrogant, condescending, snobbish) the product itself was evaluated positively.

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3.5 Individual Papers: Me and My Brands: Identity and Product Judgment

Room: Spruce Room

Chair: Pingping Qiu, Monash University

Sharing (Less-than-Ideal) Knowledge: Consumer Knowledge Self-Discrepancy and Word-of-Mouth

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People generally believe that people who share knowledge are knowledgeable. This belief is borne out in research demonstrating that the extent to which product knowledge is shared with others is positively related to the influencer's own knowledge (e.g. Feick and Price 1987; Jacoby and Hoyer 1981). A pilot study we conducted further suggests that people expect the "knowledge possessed = knowledge shared" relationship to hold with consumer-submitted online product reviews. Participants listed a person's level of product knowledge second only to product dissatisfaction among 12 frequently cited motives for sharing reviews and recommendations online.

This paper proposes that when beliefs about one's own knowledge have self-concept implications, this relationship may not hold. For example, it seems likely that consumers aren't always satisfied with their product knowledge. Perhaps a new parent feels behind the times when chatting about popular movies and music, or a man who drives an exotic sports car wishes he knew more about automobiles. When in a position to share their product opinions, do they present themselves as the consumer they are, or the one they aspire to be? That is, do they share their knowledge to an extent consistent with the influence they are due?

We apply theory related to possible selves (Markus and Nurius 1986) to this question. A perceived discrepancy between two self-states--here, a person's own *actual* and *ideal* selves--has been shown to be a strong source of behavioral motivation (Foote 1951; Higgins 1987). Extended to the domain of product knowledge, where a consumer is content with her actual knowledge, we predict the "knowledge possessed = knowledge shared" relationship holds. However, if that person is self-discrepant in her knowledge ($ideal > actual$), she may be differentially motivated to share her knowledge when doing so might enhance her self-concept. While empirical evidence is limited, word-of-mouth research supports generalized self-enhancement as a motivation for consumer social influence (Dichter 1966; Gatignon and Robertson 1986; Sundaram, Mitra and Webster 1998). Also supportive of our prediction is symbolic self-completion theory (Wicklund and Gollwitzer 1981), which finds that people under-endowed with ability in a self-relevant domain to which they are highly committed (e.g. a hobby) look for alternative symbols to demonstrate that ability.

We pursue evidence of an underlying self-enhancement motivation through moderators including psychological closeness, as people are particularly likely to self-enhance with people they know (Argo, White and Dahl 2006; Baumeister 1998), the consumer's symbolic involvement with the product category (Jain and Srinivasan 1990), and social comparison direction. Regarding the latter, people are said to self-enhance with audiences who represent slight downward comparisons to support their "drive upwards" toward personal ideals (Festinger 1954).

Four lab experiments and a quasi-field study tested the main effect and moderators. In the first two studies, subjective product knowledge was manipulated (low or high). Actual and ideal subjective knowledge beliefs for the category were measured (order counterbalanced) and differenced for the self-discrepancy variable. As both factors engage subjective knowledge beliefs, the order of the knowledge manipulation and discrepancy measurement were also counterbalanced across studies. Participants were then told they would be testing features of a retail website, including writing product reviews and sharing these with people they knew personally by email (study 1) and/or anonymously with other participants (study 2). The dependent measure was the number of people with whom the participant sought to share their reviews ("influence targets").

Study 1 revealed that the "knowledge possessed = knowledge shared" relationship was reversed given a self-discrepancy in product knowledge. Given a perceived discrepancy between one's actual and ideal movie knowledge, people with low (high) subjective knowledge sought to share their movie reviews with more (fewer) people they knew (study 1).

The second experiment assessed the social distance moderator in the context of music products. Consistent with study 1, a positive relationship between knowledge possession and sharing failed to hold given a self-discrepancy and psychologically close (known) influence targets. However, with psychologically distant (anonymous) targets, neither self-discrepancy nor category knowledge predicted the number of influence targets sought, providing a boundary condition consistent with a relative lack of opportunity for self-enhancement.

In study 3, we manipulated a generalized consumer knowledge self-discrepancy using a validated priming method. Participants in this study then provided product ratings in high (e.g. books) or low (e.g. toothpaste) symbolic category involvement conditions. To assess social comparison direction, participants were asked to estimate category knowledge for each of their influence targets. We found that a self-discrepancy in product knowledge increased (reduced) knowledge sharing in high (low) symbolic involvement categories, consistent with self-enhancement. In the high symbolic involvement condition, self-discrepant consumers pursued influence targets they believed held significantly less product knowledge than themselves, while all other conditions selected targets with knowledge they estimated to be no different to or higher than their own.

In the fourth study, participants provided actual and "ideal" values on Feick and Price's (1987) market maven scale, which identifies people who are both knowledgeable about products and are disseminators of that knowledge. Analysis indicated that a discrepancy between one's actual and ideal "market maven-ness" was more predictive of knowledge sharing intentions than the base scale score.

Finally, a quasi-field study observed the behavior of consumer participants in a retailer's online social network. Two proxies for a knowledge self-discrepancy were constructed using personal profile page postings and the consumer's actual purchase data. The proxies and covariates were regressed on the number of product reviews the consumer contributed at the social network website. We observed a significant, positive relationship between the self-discrepancy proxies and the number of online book reviews contributed.

Our research sheds new light on the relationship between subjective consumer knowledge and word-of-mouth. We challenge and extend prior research by demonstrating that an important consequence of consumer knowledge is subject to the motivational forces of “possible selves”. We hope these findings may encourage a more careful consideration of the credibility of word-of-mouth, suggest the managerial possibility of appealing to consumer ideals to encourage product-centered social interactions, and stimulate further academic research regarding self-concept in consumer knowledge and social influence.

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Object Self-Categorization and Egocentric Product Judgment

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Ample consumer research concludes that after consumers own a product they judge it more favorably, namely as more attractive (Huang, Wang, and Shi 2009; Kirmani, Sood, and Bridges 1999; Swaminathan, Page, and Gurhan-Canli 2007) or valuable (Kahneman, Knetsch, and Thaler 1990, 1991). Such findings has been often explained using motivational accounts such as mere ownership (Beggan 1992), motivated reasoning (Kunda 1990), and brand attachment (Park, MacInnis, and Priester 2008), whereby people do so in order to maintain or enhance the self.

While the positive effect of ownership on product judgment is ubiquitous, the present research demonstrates that, under certain conditions, ownership can also lead to lower product evaluations. Further, it puts forth a unifying cognitive framework, namely Object Self-Categorization (OSC) that accounts for both increases and decreases in judgment following product ownership. The framework postulates that a person categorizes objects he owns as part of his self, but classifies objects that he does not own as external to this category. As a result, he may intuitively include information about the self in the way he mentally represents possessions but exclude such information from the way he represents non-owned objects. Therefore, based on the inclusion/exclusion model for assimilation and contrast (Bless and Schwarz 2010), he may judge products in an egocentric manner. In particular, he may judge possessions in assimilation to the way he evaluates his own traits and abilities at the time of product judgment, but evaluate non-owned products in contrast to these very same self-evaluations. Accordingly, for example, a consumer who temporarily feels less innovative (e.g., due to a negative feedback) would judge a product as less innovative when he feels product ownership, but as more innovative when he does not.

Notably, OSC does not directly predict (positive nor negative) ‘ownership effect’ on product evaluation. Instead, it predicts that ownership moderates whether the judge’s self-evaluation affects product judgment directly (i.e., via assimilation) or inversely (i.e., via contrast). Further, a set of boundary conditions helps to pin down the underlying role of object-self categorization in the process. Specifically, we expect ownership to moderate the effect of self-evaluation on product judgment in the expected manner only for people who are sensitive to the role of ownership in categorizing products as part of the self, and those who are attuned to self-related information.

Categorization involves “treating two or more distinct entities as in some way equivalent...” (Medin 1989, p. 1469). Therefore, to provide initial confirmation to our object self-categorization framework, in a preliminary study, we induced individuals to feel product ownership and examined the implications on how they categorize the product relative to themselves. As expected, we found that they

categorize it as part of themselves (1) more than others do, (2) closer to the way they classify a product they already own, and (3) further away from how they classify a product that they do not own.

Next, to examine the predicted egocentric evaluation implications, participants in Study 1 were induced to feel either more or less creative using an ease of retrieval manipulation (adapted from Schwarz et al. 1991). Moreover, half were randomly induced to feel ownership (via usage imagery, see Peck and Shu 2009) over a pen that was portrayed as moderately creative (e.g., writes in zero gravity). As predicted, among respondents in the high (low) creativity condition, those in the psychological ownership condition evaluated the pen as more (less) creative, but those in the no ownership condition evaluated it as less (more) creative.

The same pattern of results was replicated in Study 2, whereby self-evaluation was measured and actual product ownership was manipulated by randomly promising participants either the evaluated pen or a comparable mechanical pencil. This Study also tested our assertion that product self-categorization is the underlying mechanism. Specifically, product ownership is assumed to lead individuals to categorize products with respect to the self, which in turn determines how self-evaluation affects evaluation of product characteristics (i.e., directly or inversely). Nonetheless, some individuals may be less sensitive to the self as a category for owned objects, and may feel that a product is part of the self to the same extent, low or high, regardless of whether they own it. Therefore, we predicted and found that such individuals are less likely to exhibit the predicted interaction between product ownership and self-evaluation (i.e., a three way interaction). Product self-categorization sensitivity was assessed by an original scale that measures the difference between the extent to which individuals report that an owned item (e.g., the shirt they were wearing), and a non-owned one (e.g., their lab seat), is part of their self. Small difference indicates on lower sensitivity to the self as a category for owned objects, since ownership does not affect the extent to which objects are categorized as part of the self.

The same pattern was also replicated in Study 3, whereby the dependent variable was recommendation likelihood to creative individuals (i.e., ones with creative professions such as artist or journalist). We expect and find that higher creativity evaluations translate into higher recommendation likelihood to creative individuals, (but not to uncreative individuals, e.g., teacher or clerk). Study 3, also helped to pin down the underlying mechanism. Since categorization with the self is proposed to determine the way self-evaluation affects product evaluation, if self-evaluation information is not readily available in consumers' mind, ownership should not affect evaluation of product characteristics. However, individuals who are low on self-awareness (the state) or private self-consciousness (the trait) are less attuned to information about their self (Duval and Wicklund 1972; Fenigstein, Scheier, and Buss 1975). Accordingly, we asserted and found that, when individuals are more (vs. less) self-conscious, they are more likely to exhibit the predicted interaction between product ownership and self-evaluation (i.e., a three way interaction). Finally, Study 4 supports the generalizability and robustness of the results by replicating them with a different product category and a respective evaluated characteristic (i.e., headphones and authenticity) as well as manipulating self-awareness (using a small mirror). We discuss the theoretical and practical importance of our findings.

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Looking into Consumers' Feelings of their Past: the effectiveness of Nostalgia Advertising

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Even though the use of nostalgia as a promotional tool is on the rise, research on the topic – especially nostalgia in an advertising context – remains scarce, and the effectiveness of such marketing practice is not well understood (Muehling and Sprott 2004). Some research has found that nostalgic cues are capable of triggering positive thoughts in consumers and may result in positive attitude toward the advertised brand. Nevertheless, others have viewed the use of nostalgia ads as a minefield, noting that although nostalgia may be a useful approach for advertising, it has the likelihood of potentially alienating consumers and may even cause boomerang effects if nostalgic appeals are not accurately matched with target consumers.

We seek to study one such consumer characteristic, namely, viewers' affective states, especially, their chronic affect related to the self (i.e., their general feelings about personal experiences; their general state of mind in thinking themselves). Research has shown that individuals differ with respect to their chronic self-related affect; some people have a more positive feeling of themselves in the past, whereas others have a less positive feeling (Watson, Clark, and Tellegen 1988). Given that nostalgia ads are expected to evoke consumers' memory of the "good old days," we propose that their effectiveness at arousing positive feelings may be impacted by viewers' chronic positive self-related affect. For viewers who have a more positive chronic self-related affect, nostalgia ads are expected to match consumers' affective states and, therefore, be more effective at arousing positive feelings, which in turn should boost advertising persuasiveness. For viewers who have less positive chronic self-related affect, nostalgia ads are expected to mismatch with their affective states and should be less effective at arousing positive feelings and being persuasive.

In Experiment 1, viewers' chronic self-related affective states were measured. We used an experimental study with a 2 (Ad appeal: nostalgia ad vs. control) x 2 (viewers' positive affect state: high vs. low) between subject factorial design. 137 undergraduates participated in the study. Ad appeal was manipulated by developing two fictitious ads for Kodak digital cameras from the literature: one nostalgia ad and one non-nostalgia ad (i.e., control) (cf. Muehling and Sprott 2004). Participants' positive self-related affect state was measured using the positive affect sub-scale of the PANAS Scale (Watson, Clark, and Tellegen 1988). They were then placed into high and low chronic positive affect groups via a median-split procedure. The primary dependent measures in this study included: purchase intention, brand attitude, ad attitude, and ad-aroused positive emotion.

Statistical analyses indicated that our manipulations of ad appeal were successful. Our hypotheses were supported. A two-way ANOVA on intention to purchase revealed a significant interaction effect between ad appeal (nostalgia ad vs. non-nostalgia ad) and viewers' positive affective state (high vs. low). Subsequent pair-wise comparisons showed that when participants were in a high positive affect, those who viewed the nostalgia ad had a higher intention to purchase the advertised product than those who viewed the non-nostalgia ad. On the other hand, when participants were in a low positive affect, those who viewed the nostalgia ad reported an intention to purchase the advertised product comparable to those who viewed the non-nostalgia ad. Similar results were found on other dependent measures including brand attitude, ad attitude, and ad-aroused positive emotion.

In Experiment 2, viewers' affective states were primed (instead of measured) before viewing stimulus ads. Ad appeal was manipulated as in Experiment 1. Participants' positive affect state was primed by instructing them to recall and write down: three personal successes in past five years to prime positive affect and three personal failures in past five years to prime negative affect (Gebauer, Broemer, Haddock, and Hecker 2008). The primary dependent measures were the same as in Experiment 1.

Our hypotheses were supported again. A two-way ANOVA on intention to purchase revealed a significant interaction effect between ad appeal and viewers' primed affective state. Subsequent pair-wise comparisons showed that when participants were in a positive self-related affect, those who viewed the nostalgia ad had a higher intention to purchase the advertised product than those who viewed the non-nostalgia ad. On the other hand, when participants were in a negative self-related affect, those who viewed the nostalgia ad reported an intention to purchase the advertised product comparable to those who viewed the non-nostalgia ad. Similar results were found on other dependent measures including brand attitude, ad attitude, and ad-aroused positive emotion.

In summary, in two experiment studies, we demonstrated that the effectiveness of nostalgia advertising may be largely contingent on the ad's efficacy at evoking positive emotional resonance among viewers. To this end, among others, advertisers should strive to tailor their nostalgia advertising to a particular segment of consumers to connect with them in a unique way and also at a more intimate and meaningful level.

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Won't Buy Because Product Promises Are Threatening: Defensive Reactions to Self Threat in Consumption

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Consumers constantly receive information posing threat to self in advertising and consumption contexts. For example, exposure to idealized images in media may pose threat to one's own physical attractiveness (Richins, 1991). However, little research has been done to examine whether dampened self views on physical attractiveness would enhance or impede the chance that attractiveness enhancement products will be adopted.

Psychology research has evidenced that once self view is threatened, individuals can react in a *defensive* way, such as acting aggressively (Baumeister, Smart, and Boden, 1996), derogating the threatening source (Fein and Spencer, 1997) or even reporting a more favorable self evaluation (Wan et al., 2008). Alternatively, individuals may cope with self threat in a *compliant* way (Eisenstadt, Leippe, and Rivers, 2002; McQueen and Klein, 2006), i.e., seeking ways to address the threatened self domain and to repair self worth. However, emerging consumer research on this topic only evidenced the compliant reaction to self threat (e.g., Gao, Wheeler, and Shiv, 2009, Rucker and Galinsky, 2008), indicating that consumers whose self views were threatened tended to show favorable attitude toward products that can implicitly repair the threatened self domain.

The first goal of our research is uncover consumption contexts where self threat activates self defense mechanism, leading to defensive consumption. We employed research contexts from prior research where defensive mechanism to self threat has been reported and examine whether these defensive mechanism leads to defensive consumption mode, dismissing products and brands that can improve their well-being (exposure to idealized images for female subjects, in Study 1; masculinity threat for male participants, in Study 2). Furthermore, we examined the boundary conditions of defensive consumption mode. Study 3 examined how *mode of threat* and *symbolic meaning of products* would affect whether consumers adopt defensive consumption mode. Prior research demonstrated that blatant threat (e.g., bogus negative feedback) can arouse more defensive reactions than subtle threat (e.g., words or picture priming, Critchley, Mathias, and Dolan, 2002). However, we further propose that defensive consumption is activated both when the threat is blatant (vs. subtle) and when self improvement products signal deficiency of the users. In Study 4, we addressed the underlying mechanism of defensive consumption. We argue that self threat can activate a self defense goal, driving self defensive

consumption mode. However, if a self defense goal is satiated by opportunities to affirm positive aspects of self (DeWall, Baumeister, and Vohs, 2008; Sherman and Cohen, 2006), defensive consumption will be attenuated.

The first two studies examined whether a self threat leads to defensive consumptions. In Study 1, we examined female consumers' evaluations of a body enhancement product after a prior exposure to idealized images in a preceding and seemingly unrelated advertisement evaluation task. We expect that subjects whose self views on physical appearance were threatened by the exposure to idealized images (Richins, 1991) are more likely to show less favorable attitudes toward the product. In addition, we included self domain importance as a moderator of the proposed relationship. That is, defensive consumption is only evident when the threatening self domain is important to individuals. We used gender as a proxy of domain importance, since physical appearance has been identified to be important for females but not males (Crocker et al., 2003). ANOVA results of a 2 (self threat: idealized image vs. no image) \times 2 (gender) between-subjects experiment yielded a significant interaction ($F(1,104) = 4.89, p < .05$) on the measure of attitude toward product ($\alpha = .90$). Results of planned contrast confirmed hypothesis that female participants who viewed idealized images (vs. no images) devaluated the product ($M = 2.99$ vs. $4.04; F = 8.26, p < .01$). However, such effect did not emerge among males ($M = 3.78$ vs. $3.74; F < 1$). We further discovered that among female participants, defensive mechanism (an index of 3 measured items, $\alpha = .85$) partially mediated the relationship between exposure to idealized images and attitude toward body enhancement product (with inclusion of the mediator, main effect of exposure on attitude toward product is reduced, $c = -.433, p < .01; c' = -.329, t = -2.31, p < .05$; Sobel $z = -.95, p > .10$).

Study 2 intended to replicate findings of defensive consumption in study 1 in the context of gender identity threat. In this study, male participants' beliefs about their own masculinity were threatened by bogus description of their personality resulting from a gender identity test they had taken (Willer, 2006). They subsequently evaluated products and brands, chosen by pretest results to signal high masculinity (VW SUV and Boss men's watch) or low masculinity (VW Beetle and Chanel men's watch). ANOVA test of a 2 (self threat: feminine feedback in gender identity test vs. no feedback) \times 2 (high vs. low masculine products and brands) between-subjects design yielded a significant interaction ($F(1, 74) = 3.96, p = .05$) on purchase intention. Findings of planned contrast evidenced defensive consumption that male participants who had been threatened by bogus feedback about their masculinity were less likely to purchase products and brands improving masculinity (SUV and Boss) than those who had not received threat ($M = 3.52$ vs. $4.47; F = 5.00, p < .05$). Interestingly, such effect did not emerge for products and brands signaling low masculinity not improving masculinity (Beetle and Chanel) ($M = 3.97$ vs. $3.71; F < 1$).

Study 3 examined the boundary conditions of defensive consumption. We propose that when consumers are threatened blatantly, they would engage in defensive consumption if the product signals self deficiency (low affirmation value), but may engage in compliant consumption if the product bolsters their self views (high affirmation value); However, when consumers are threatened subtly, affirmation value of the products has no impact on consumption mode. In this study, participants' self views in intelligence domain were threatened either *blatantly* by receiving bogus negative feedback in Remote Association Test (Vohs and Heatherton, 2001) or *subtly* by performing a difficult version of Remote Association Test (Schwarz, 2004). Subsequently, they evaluated products with *high* affirmation value (e.g., book *Critical Thinking*) or *low* affirmation value (e.g., video program *IQ Increase*, products selected based on pretest results). Results of a 2 (mode of threat) by 2 (product affirmation value) ANOVA on the measure of attitude toward product ($\alpha = .95$) yielded a significant main effect of mode of threat ($M_{blatant} = 3.81$ vs. $M_{subtle} = 4.24; F(1, 110) = 3.50, p = .06$) and a significant main effect of product affirmation value ($M_{high} = 4.28$, vs. $M_{low} = 3.77; F(1, 110) = 4.82, p < .05$). Although no significant interaction emerged ($F(1, 110) = 1.59, p > .10$), results of post-hoc contrast confirmed our expectation that when threatened blatantly, participants held less positive attitude toward products with low (vs. high) affirmation value ($M = 3.38$ vs. $4.21; F(1, 54) = 5.22, p < .05$); whereas they have no preference of the product types when threatened subtly ($M = 4.13$ vs. $4.35; F < 1$).

Study 4 addresses the underlying mechanism of defensive consumption mode. In this study, we adopted the same research context as in Study 1. The only exception is that after viewing the idealized images and before product evaluation task, female participants took a GRE reading task where they were given bogus positive feedbacks either immediately after the test (opportunities of self affirmation) or at the end of the experiment. In addition, we measured participants' self esteem prior to the whole experiment. We expect that High Self-Esteem individuals (HSE) are more likely to utilize external opportunities to replenish self worth when threatened than Low Self-Esteem (LSE) individuals (Vohs and Heatherton, 2003). Therefore, among threatened HSEs, their attitude toward enhancement products is more positive in affirmation conditions than in non-affirmation conditions, indicating a weakened defensive consumption. Whereas, among threatened LSEs, such main effect will not arise. We ran a regression on attitude toward product with affirmation (a manipulated, dichotomous variable) and trait self esteem and their interaction as predictors. A significant interaction between trait self-esteem and affirmation manipulation ($b = .556$, $t(97) = 2.08$, $p < .05$) emerge. To decompose the interaction effect, we used median split to dichotomize the trait self-esteem variable and ran a 2 (trait self-esteem: high vs. low) \times 2 (self-affirmation: affirmation vs. control) ANOVA. The pattern is consistent with our hypothesis that HSEs demonstrated a more positive attitude when affirmed ($M_{\text{affirmation}} = 3.59$ vs. $M_{\text{control}} = 2.97$).

Taken together, this dissertation echoes with the recent calls from consumer researchers (Dunning, 2007) that we need to understand more about the relationship between consumers' self views and their consumption behaviors. Whereas previous research has painted a rosy picture of how products and brands are empowering consumers by providing important symbolic values, this research deviates and presents a darker side of the story. That is, when there is a mismatch between products symbolic value and consumers' fluid self views, consumers would reject these choices as a way to defend their self views.

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3.6 Individual Papers: Branding and Logo Design

Room: Maple Room A

Chair: Henrik Hagtvedt, Boston College

Alpha-Numeric Brand Names: Is Less More Or Is More Better?

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Hendrik Slabbinck, Ghent University

Mario Pandelaere, Ghent University

The existence of millions of registered and unregistered alpha-numeric trademarks (US Patent and Trademark Office, 2010) indicates that alpha-numeric brand naming has become commonplace (Pavia, 1994). In designing alpha-numeric brand names, specific numbers may be selected for quantities they refer to (e.g., BMW 5 series, IT247; Gunasti & Ross, in press) or for their homophonic capabilities (e.g. U2, 7Up; Pavia & Costa, 1993). As the success of alpha-numeric brand names may depend on the liking of the number involved, differences in number liking may also be rather important. People find some numbers more attractive than others (Brown, 1979; Heywood, 1972). Next to associations with specific meanings (e.g., 'lucky number 7') structural characteristics of numbers (e.g. repetition of digits: Pavia & Costa, 1993) also affect number liking.

The current paper investigates the relation between number liking and number's magnitude. While recent studies suggest that large numbers are better liked than small numbers (Gunasti & Ross, in press), we show that the relation between number magnitude and number liking is U-shaped: Both small and large numbers are liked more than medium-sized numbers. Given that people automatically represent the magnitude of numbers as increasing from left to right or from bottom to top (Fias & Fisher, 2005), higher numbers are suggested to be regarded as better (Gunasti & Ross, in press). However, not only obtaining a high *rating* or *amount*, but also achieving a favorable *ranking* is a primary driver for many people. With respect to intelligence, physical attractiveness and approval from a supervisor, people value a higher relative position more than a higher absolute quantity (Solnick & Hemenway, 1998). In a similar vein, the rank-ordered position of people's income, rather than their absolute and relative income, predicts their happiness (Boyce, Brown & Moore, 2010). Given that a favorable rank also has a positive connotation, we suggest that a preference for smaller numbers is also likely.

In sum, both smaller and larger numbers have well-established positive associations and consumers may therefore like small and large numbers better than intermediate numbers; this implies a U-shaped relation between number magnitude and number size.

Study 1 demonstrates the existence of a U-shaped relation between number magnitude and number liking. Forty participants rated 50 randomly selected and presented numbers ranging between 10 and 99 on attractiveness (7-point scale). Results of different multilevel regression models revealed that a model including a quadratic polynomial fitted the data better than a model including a linear trend only ($\chi^2_{\text{Change}} = 97.51$, $df_{\text{Change}} = 1$, $p < .001$); adding a cubic trend did not improve model fit any further ($\chi^2_{\text{Change}} = 1.82$, $df_{\text{Change}} = 1$, $p = .177$). The quadratic relation between number magnitude and number liking indicates that smaller and larger numbers are liked more than intermediate numbers.

Study 2 ($n = 54$) tested whether number liking are due to well-established positive associations for small and large numbers. The connotation evoked by the context was manipulated by playing background music when the participants rated the attractiveness of numbers. The music was selected in such a manner that it either implicitly refers to a favorable relative position (e.g., 'We are the champions' by Queen) or to a large amount (e.g., 'I want it all' by Queen). Multilevel regression analysis revealed a significant interaction between number magnitude and the evoked context ($F(1,650.21) = 26.731$, $p < .001$). Larger numbers were favored when the background music evoked a context of a large amount ($F(1,162.903) = 6.392$, $p = .012$). In contrast, smaller numbers were favored when the background music evoked the context of relative position, $F(1,89.712) = 5.305$, $p = .024$.

In Study 3 ($n = 46$), the relevance of these findings for advertising campaigns is demonstrated. In particular, we tested the perceived fit between alphanumeric brand names featuring small versus larger numbers and advertising slogans. We found that the context evoked by the slogan is a significant predictor of the appropriateness of small versus large numbers ($F(1,460) = 18.63$, $p < .001$). More precisely, when a slogan evokes the context of relative position versus a large amount, smaller versus larger numbers are deemed more appropriate for the alpha-numeric brand name of the advertised product.

The current paper shows that number liking is systematically related to the magnitude expressed by the number. Our findings add to a body of knowledge regarding the determinants of number liking (e.g., King & Janiszewski, in press) and extend the findings of Gunasti and Ross (in press) who found that larger numbers are preferred to smaller ones. Not focusing on specific product domains and including smaller numbers than Gunasti and Ross, we found that the relation between number liking and number magnitude is U-shaped rather than linear, and that this relation is due to well-established associations of small numbers with a favorable ranking and of large numbers with a large amount. We also apply this finding in a context relevant for marketers. We show that when a brand

slogan implicitly refers to a relative position (large amount) a small (large) number is more appropriate to include in an alpha-numeric brand name than a larger (smaller) number.

The reported studies indicate that, within the set of 2-digit numbers, medium-sized numbers are liked less than both small and large numbers. It is, however, unclear what ‘medium-sized’ would refer to for ranges of numbers containing less or more than two digits. Further, given that number liking is influenced by the evoked context, it would be interesting for future research to investigate whether evoking a positive meaning to medium sized numbers could lead to an increased liking for medium-sized numbers.

Finally, although this paper only focuses on structural elements, idiosyncratic elements such as culturally determined connotations are also important for number liking.

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Processes and Generalizations for Phonetic Symbolism Effects

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Good brand names can enhance memorability, create favorable images, and increase preference for the products, and are an important component in building brand equity (Aaker 1996; Keller 1993). When investigating the construction of brand names, researchers found that not only the semantic meaning, but also phonetic symbolism, which refers to a non-arbitrary relation between sound and meaning, may influence brand preference (Klink 2000). In its simplest form, phonetic symbolism suggests that phonemes (the smallest unit of sound) can convey meaning apart from their configuration in words or syllables. Research on the relation between phonetic symbolism and brand name preference has shown that brand name preference and brand attitudes are more positive when the fit between phonetic symbolism and the product attributes is maximized. Although previous research has been successful at documenting phonetic symbolism effects in brand names, the processes underlying these effects have remained elusive. First, as some critics have pointed out, phonetic symbolism effects do not necessarily occur spontaneously, but only when specific dimensional judgments (e.g., size, shape, brightness) are elicited (Bentley and Varon 1933), suggesting that the effect may be a methodological artifact. Second, the effects that have been obtained with determining the meaning of foreign words (e.g., matching pairs of antonyms in a foreign language with comparable English antonyms; Brown, Black, and Horowitz 1955) are eliminated if both sets of stimulus words are in languages foreign to the participants (Maltzman, Morrisett, and Brooks 1956). Besides, there are in fact some reasons to think that phonetic symbolism effects would not hold for some forms of language. For example, in the Chinese written language, there are important differences in how alphabetic and logographic word representations are processed (Schmitt, Pan, and Tavassoli 1994; Tavassoli 2001), and there is considerable debate as to whether phonetic information in logographic characters can even be activated prior to some semantic activation (Chua 1999; Zhou 1978).

The goal of this paper is to extend previous research on the existence of phonetic symbolism and its application to brand naming by testing the generalization of these findings across languages, and the processes that underlie these effects. Experiments 1a – 1c were conducted to determine the extent to which phonetic symbolism effects are spontaneous and generalizable to other languages, and the extent to which non-native speakers are influenced by second-language fluency. Spanish-, French- and Chinese-speaking participants who were fluent in English expressed preferences between brand name pairs that differed only in their primary vowel sound (front vs.

back), and did so as a function of product category (2-seater convertible or knife vs. 4 X 4 vehicle or hammer). In addition, Chinese-speaking participants received brand name stimuli that were constructed using either alphabetic letters or logographic symbols in order to test possible differences in the two presentations.

Our focal hypothesis was that preference for front versus back vowel sound words as brand names would vary as a function of product category: front vowel sound words should be preferred over back for 2-seater convertible and knife, and back vowel sound words should be preferred over front for 4 X 4 vehicle and hammer. Note that the elicitation of a brand name preference for each product category does not directly elicit a judgment regarding concepts such as size, speed, or sharpness (cf. Bentley and Varon 1933). Rather, the predicted effects should be noted only if participants form perceptions of these concepts spontaneously and then apply them to their preference judgments. As predicted, an ANOVA indicated an interaction between vowel sound and product category as we predicted, and these effects held regardless of language of administration, whether the stimuli languages were native or foreign, foreign-language proficiency, or whether written form was alphabetic or logographic. The results also show that phonetic symbolism is indeed very robust across languages.

Experiment 2 investigated the processes underlying phonetic symbolism effects to determine whether the effects are truly acoustic or due to some other effect. Currently accepted models posit that once the visual information is encountered, the articulatory control process converts the visual information into phonological information, which is then deposited in the phonological memory store. Research shows that articulatory suppression (e.g., speaking out loud while reading) interrupts this process and eliminates the phonological effects in visual presentation conditions (Baddeley 1997). A 2 x 2 x 2 factorial design was used in experiment 2 and a three-way interaction between vowel sound, product category, and articulatory suppression conditions was expected. The results showed that under no-suppression conditions, the preference for corresponding product category and vowel sound was found as in previous experiments. However, this preference was eliminated under articulatory suppression conditions. Recent findings showing that cognitive load increases phonetic symbolism effects (Yorkston and Menon 2004) suggests that cognitive load is not an alternative explanation for the articulatory suppression effects.

The studies we have presented make a number of contributions to the consumer behavior literature, but they also contribute to the more general fields of cognitive psychology and psycholinguistics. We replicate the phonetic symbolism effects noted in previous studies (Lowrey and Shrum 2007; Yorkston and Menon 2004), but also show that a) these effects generalize to languages other than English, b) generalize to languages in which presentation is non-alphabetic (logographic), c) hold for second-language as well as first-language participants, d) these latter effects are observed regardless of level of proficiency of participants, e) the effects are spontaneous rather than a function of being elicited by the research method, and f) the effects appear to be acoustic, thus ruling out explanations other than phonetic symbolism effects.

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How Spelling a Brand Name Correctly Can Lead to Better Memory

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How did consumers process the word Google the first time they heard and tried to spell it as a brand name? Will they remember the brands Joomla or Groat (both of which are real brands)? Can marketers facilitate the processing of those names to enhance memory? Three studies investigate consumers' memory for new brand names presented auditorily. In particular, we examine how the process of spelling brand names influences brand memory. We theorize that if consumers are able to spell the brand names accurately, they will encode the brands in both visual and acoustic codes, and will consequently remember the brand names better. We identify linguistic and contextual variables that aid the spelling process in order to improve brand memory.

When consumers hear a word (i.e., a brand name), they can follow the lexical and/or sublexical route in attempting to spell that word. The lexical route is a top-down strategy whereby the consumer retrieves similar words from memory and uses that knowledge to transcribe the new word. The sublexical route is bottom-up whereby the consumer considers and transcribes each sound one at a time (Campbell 1983; Folk, Rapp, and Goldrick 2002). For new words, like brand names that are not familiar to consumers, the sublexical route tends to be the default spelling strategy.

We study situations in which the name of a brand hampers use of the sublexical route, and investigate whether the lexical route may offset such spelling handicap. Specifically, we identify brand name characteristics that can influence whether consumers spell the brands as intended by marketers. Spelling consistency is one such characteristic. Consistency of a brand name's spelling refers to whether it can be spelled in one or in several ways. If a brand's spelling is inconsistent, it will curtail the reliability of the sublexical route (Houghton and Zorzi 2003).

Lexical-level variables, however, could offset that handicap (Rapp, Epstein, and Tainturier 2002). For instance, if a brand's intended spelling is primed prior to brand name exposure, consumers may be able to use a top-down strategy to transcribe the brand as intended. Another lexical-level variable is the semantic relationship of the brand name to its product category. Such a relationship can help consumers spell the brand name correctly. We use this theoretical framework to show that a brand name's linguistic characteristics can influence spelling accuracy and memory for the brand.

Recall of a brand name may be affected by the ability of consumers to correctly spell the name. When consumers hear a brand for the first time and then try to write it down (in a search engine, or a shopping list), correctly guessing the brand's intended spelling could influence their memory in one of two ways: via positive elaboration, or via the dual (visual plus auditory) code they store.

A Positive Elaboration Explanation: If consumers correctly guess the intended spelling, they could engage in positive elaboration, manifested in positive thoughts about the brand name. Research in psychology has found that the positive affect that results from positive elaboration can lead to increased levels of dopamine, attention, and better performance in cognitive tasks like problem solving or memory (Ashby, Isen, and Turken 1999).

A Dual Coding Explanation: If an individual can encode an auditorily presented brand in both its auditory and written representation, the resulting dual-code representation could result in superior long-term memory (Martin 1980; Penney 1989). When spelling is

facilitated by variables operating at the lexical and/or sublexical routes, respondents would have access to both visual and auditory traces of the brand name.

The objective of study 1 is to investigate the possible joint effect of the lexical and sublexical routes to spelling with respect to consumers' ability to spell and remember a brand. An experiment was conducted comparing fictitious non-word brand names with consistent sound-to-spelling mappings to names with inconsistent mappings (thus manipulating the reliability of the sublexical route). The potential effect of the lexical route was investigated by priming/not priming the intended spelling of the brand. The study was a 2 (spelling consistency: inconsistent vs. consistent) x 2 (spelling prime: prime vs. no prime) between-subjects experiment, implemented on interactive software. The results show similar two-way interactions for our two key measures: accuracy in the immediate brand spelling task, and brand sound recall (recall of the sounds of the brand regardless of how respondents spell them). The two measures reveal similar patterns, in that consistent brands had high levels of spelling accuracy and sound recall, regardless of priming. Inconsistent brands experienced a priming effect, though, such that priming led to higher scores in the two measures than non-priming. This supports our theorizing that the lexical route can help overcome limitations of the sublexical route.

Study 2 investigates the process underlying the influence of spelling on memory. In addition, we manipulate a different variable that operates at the lexical level, semantic processing. Our aim in this study is to examine brands with inconsistent spellings more closely (we only used brands with inconsistent spellings in this study), to see if semantic effects can aid memory above and beyond the effect of priming the intended spelling. The study was a 2 (semantic congruity: congruent vs. incongruent) x 2 (spelling prime: prime vs. no prime) between-subjects experiment. Our results validate study 1, showing a significant effect of our manipulations on spelling accuracy and sound recall. The number of positive thoughts produced by respondents, collected in this study, follows a similar pattern to recall. More importantly, we show that correctly guessing the brand spelling mediates the effect of the independent variables on brand sound recall. However, positive elaboration does not mediate the effect of the independent measures on recall. We can conclude from this analysis that the dual coding explanation for the effect of spelling on memory received the most support from our data. That is, when consumers successfully encode the visual form of the brand in addition to its sound, they later remember the sound regardless of the number of positive thoughts they produce.

Study 3, like the other studies, manipulates a sublexical-level variable and a lexical-level variable. To enhance spelling through the lexical route, this time we utilized semantic symbolism (e.g., Lowrey and Shrum 2007). Thus, the sounds of brand names could be congruent or incongruent with their respective product categories. We again show the interaction of lexical and sublexical variables on spelling and memory.

We provide a link between the linguistic and contextual characteristics of brand names and consumers' ability to spell and remember the names. We theorize that being able to spell a brand leads to encoding the brand in both an auditory and a visual trace, which helps remember the brand more accurately. Our research is the first theory-based attempt to understand how a brand's spelling influences memorability.

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Applying Art Theory to Logo Design: An Ambiguous Influence on Consumer Perceptions of the Firm

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The influence of ambiguous visual communication stemming from marketing stimuli such as incomplete logos is an important topic of investigation, not only because it represents a gap in the consumer psychology literature and in our understanding of how consumers interpret visual stimuli, but also because of the vast amounts of resources that firms expend on logos as a marketing tool. Drawing on extant literature in aesthetics, art theory, psychology, and marketing, this research investigates the influence of perceptual ambiguity stemming from logo incompleteness on consumer perceptions of the firm. Four studies demonstrate that while ambiguity has an unfavorable influence on perceived firm reliability, it has a favorable influence on perceived firm innovativeness. The former (latter) influence stems from the perceived readability (interestingness) of the logo. Further, ambiguity has an unfavorable influence on general attitude toward the firm, but only for consumers with a prevention (vs. promotion) focus.

In this research, the logos used are representations of firm names without additional pictorial elements. Each unambiguous logo is spelled out with complete characters, while each ambiguous logo is styled such that parts of the characters appear to be missing or blanked out and must therefore be filled in by the consumer via a perceptual act. Extant literature suggests that this perceptual act causes the consumer to perceive the logo as interesting and creative, a perception which subsequently spills over onto the firm. However, the ambiguity also connotes a lack of clarity, which leads to perceptions of low reliability. Further, ambiguity connotes uncertainty, which signals either opportunity or risk, depending on one's point of view. Thus, the influence of ambiguity on general attitude toward the firm depends on the regulatory focus of the consumer. For consumers with a promotion (prevention) focus, the opportunity (risk) associated with ambiguity leads to more (less) favorable attitudes toward the firm.

Study 1 consists of three preliminary experiments, with participants drawn predominantly from a US population (44% male, $M_{\text{age}} = 45$ yrs). In each experiment, participants were randomly assigned to one of two versions (ambiguous vs. unambiguous) of the same logo. Participants (71, 67, and 69 participants in experiments 1a, 1b, and 1c, respectively) viewed the logo and then responded to a battery of questions. Results revealed that for each ambiguous (vs. unambiguous) logo, the firm was perceived as more (less) innovative ($M_a = 4.36$ vs. $M_u = 3.67$, $F = 5.33$, $p < .05$; $M_a = 3.77$ vs. $M_u = 3.18$, $F = 3.16$, $p < .10$; $M_a = 3.93$ vs. $M_u = 3.34$, $F = 4.09$, $p < .05$), but less (more) reliable ($M_a = 3.93$ vs. $M_u = 4.53$, $F = 4.13$, $p < .05$; $M_a = 3.18$ vs. $M_u = 3.87$, $F = 4.67$, $p < .05$; $M_a = 3.61$ vs. $M_u = 4.49$, $F = 7.57$, $p < .05$).

In study 2, participants were once again given an ambiguous or unambiguous version of the same logo. They described their impression of the firm in their own words, and independent coders coded the data for perceptions of firm innovativeness ($M_a = .16$ vs. $M_u = -.12$, $F(1, 83) = 6.29$, $p < .05$), firm reliability ($M_a = -.12$ vs. $M_u = .31$, $F(1, 83) = 10.18$, $p < .05$), logo interestingness ($M_a = .30$ vs. $M_u = -.62$, $F(1, 83) = 33.29$, $p < .05$), and logo readability ($M_a = -.33$ vs. $M_u = .00$, $F(1, 83) = 19.80$, $p < .05$).

In study 3, 185 respondents (59% male, $M_{\text{age}} = 46$ yrs) participated in a 2 (ambiguity: ambiguous vs. unambiguous) x 2 (focus: promotion vs. prevention) between-subjects experiment. The latter manipulation was effected via type of firm (entertainment vs. insurance). Results revealed the expected ambiguity x focus interaction ($M_{(\text{ambiguous-promotion})} = 3.85$ vs. $M_{(\text{unambiguous-promotion})} = 3.98$ vs. $M_{(\text{ambiguous-prevention})} = 3.13$ vs. $M_{(\text{unambiguous-prevention})} = 4.47$, $F(1, 131) = 6.63$, $p < .05$).

In study 4, 120 respondents (56% male, $M_{\text{age}} = 45$, modal income = \$50,001 - \$75,000) participated in a 2 (ambiguity: ambiguous vs. unambiguous) x 2 (focus: promotion vs. prevention) between-subjects experiment online. The latter manipulation was effected with a standard procedure from the literature. Results revealed the expected main effect of ambiguity on perceived firm innovativeness ($M_a =$

4.18 vs. $M_u = 3.39$, $F(1, 116) = 9.30$, $p < .05$) and reliability ($M_a = 3.29$ vs. $M_u = 3.80$, $F(1, 116) = 5.07$, $p < .05$). Bootstrap estimation (Preacher and Hayes 2004) with 5,000 resamples, as well as a Sobel test, demonstrated that interestingness mediates the influence of ambiguity on perceived innovativeness ($M = -.31$, $SE = .10$, 95% CI = $-.50, -.12$). Sobel test: $z = -3.08$, $p < .05$. A similar procedure demonstrated that readability mediates the influence of ambiguity on perceived reliability ($M = .23$, $SE = .11$, 95% CI = $.03, .46$). Sobel test: $z = 2.50$, $p < .05$. Finally, a 2 (ambiguity) x 2 (focus) ANOVA with the general attitude index as the dependent variable revealed the expected ambiguity x focus interaction ($M_{(\text{ambiguous-promotion})} = 4.01$ vs. $M_{(\text{unambiguous-promotion})} = 3.66$ vs. $M_{(\text{ambiguous-prevention})} = 3.24$ vs. $M_{(\text{unambiguous-prevention})} = 4.04$, $F(1, 116) = 5.67$, $p < .05$, partial $\eta^2 = .05$).

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3.7 Individual Papers: Consumer Spend/Save Decisions

Room: Maple Room B

Chair: Anthony Salerno, University of Miami

Budget Shoppers' Spending Biases

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With one in seven American households living in poverty and another one in six only being able to afford basic necessities, nearly one in three U.S. households has to carefully plan its budgets and spend accordingly. Budget shoppers who exceed their budget may end up in financial distress, as they may be unable to pay recurrent expenditures, such as the monthly mortgage and insurance payments. It is therefore important to gain a better understanding of the spending behavior of budget shoppers.

Budgeting—which we define as earmarking portions of income for specific uses—is common in many households and especially prevalent in lower income households (Bénabou and Tirole 2004). In both marketing and economics fields, descriptions of budget allocations and spending behavior tend to rely on a budget constraint utility model, in which consumers maximize their utility within their budget constraints (Hymans and Shapiro 1976; Kunreuther 1973). To maximize their utility given their budget, shoppers should spend their entire budget; spending more or less than their budget reduces their utility (Ariely et al., 2005; Rosen, 1974).

Given that neither over- nor underspending is optimal, the question arises as to how budget shoppers cope? Do they spend their entire budget? Are they more likely to overspend or underspend relative to their budget? What drives these potential spending biases and how may they be eliminated? Gaining an understanding into these questions may help improve the welfare of budget shoppers as well as retail performance.

To gain a first understanding about whether budget shoppers spend their entire budget, or exhibit spending biases, we intercepted 128 shoppers in checkout lines in a local supermarket. Prior to completing the checkout process and paying for their groceries, respondents answered a series of shopping-related questions pertaining to if they had a maximum dollar limit that they planned to spend during this

trip, and, if so, how much they planned to spend. After the participants paid for their groceries, the interviewer investigated a copy of their receipt to determine the total basket price, handed the receipt to the shoppers, and thanked them for their participation. To examine spending biases (spending – budget), we considered only budget shoppers ($N=46$). On average, budget shoppers exhibited a significant spending bias: they spent a significant \$10.52 less ($t=4.53$, $p<.01$) than their budget (average=\$96.39). Furthermore, we find that 76.1% of the budget shoppers spend less than their budget, while 23.9% spend more, and the amount of underspending is twice as high than the amount of overspending (\$16.33 vs. \$7.97; $F(1,44)=4.12$, $p<.05$).

One possible explanation for these asymmetric findings is that shoppers use their budget as a reference point and perceive spending more than their budget as a loss, while spending less than their budget may be experienced as a financial gain (Stilley et al. 2010; Tversky and Kahneman 1991). To avoid experiencing losses, they try to stay save and spend less than their budget.

This reference-dependence may also explain why shoppers' aversion to overspending ("I did not want to overspend on groceries today") significantly increased the likelihood of underspending ($b=-.53$, $p<.01$) as well the sheer size of underspending ($b=-.57$, $p<.01$). In support for this line of reasoning, we further find that shoppers who are more averse to overspending are more likely to track how much they spend while shopping for groceries ("Do you track how much you are spending while shopping") (6.5 vs. 4.9; $F(1, 44)=6.64$, $p<.01$) and they are more likely to pay with cash than with plastic (6.9 vs. 5.2; $F(1, 44)=7.8$, $p<.01$). Having limited cash on hand may be a strong motivation to stay within budget, while having virtually unlimited resources available may make staying within budget less critical. Intrigued by the demonstrated asymmetry, as part of a second field study, we examined shoppers' responses to budget constrains in more detail as well as some potential consequences for retail performance.

We conducted an exploratory field study with 293 shoppers, whom we intercepted at the end of their shopping trip in one of two supermarkets located in Atlanta. As part of a longer survey, we asked participants whether they change their shopping when they realize that they are spending more than planned and when they spend less than planned. Next, participants were asked how satisfied they would be with the store if they found out that they would have to pay more (less) than their estimated total (-5 = very dissatisfied; 5 = very satisfied) and whom they hold most responsible (-5 = myself; 5 = the store).

First, we find additional evidence for the asymmetry in spending more versus less than their budget. That is, while 78.2% of the shoppers indicate that they will change their shopping when they realize that are spending more than planned, only 34.2% state that they will change their shopping when they realize they are spending less than planned ($\chi^2=196.7$, $p<.01$).

Shoppers, who unexpectedly have to pay more, blame the retailer more than themselves ($p<.01$) and they are dissatisfied with the retailer. Shoppers attribute unexpected underspending to themselves ($p<.01$) and remain neutral towards the retailer when they have to pay less than expected. These findings suggest that budget shoppers' spending biases may have consequences for retail performance (e.g., store loyalty).

We conclude that budget shoppers exhibit asymmetric spending biases – they are more likely to under- than overspend – a pattern that seems consistent with the reference dependence theory. Understanding the source of these spending biases may allow retailers to help resolve them and in that way improve consumer welfare and retail performance. To address the limitations of both field studies, we are in the process of developing lab experiments, the results of which will be shared at the conference.

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Consumer Understanding of Compound Interest

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Many important financial decisions hinge on a proper understanding of compound interest. For example, decisions on how much and when to invest in a 401(k) plan, whether to refinance a loan, or how to trade off various attributes of a loan instrument (rate, points up front, duration, etc.), cannot be made without a proper understanding of compounding. Furthermore, some judgments that enter into assessments of well-being and happiness, such as whether prices or wages are fair (cf., Bolton, Warlop, & Alba, 2003), also depend on a proper understanding of compounding.

When consumers approach such decisions, however, their understanding of this critical concept is frequently quite poor. This problem is exacerbated because the geometric nature of compounding is counter-intuitive even to those who are intellectually familiar with the underlying theory. Furthermore, to accurately choose an option in many of the financial domains outlined above would require substantially greater spreadsheet modeling expertise than is possessed by the vast majority of consumers, which means that there will frequently be a substantial intuitive component to consumer decision-making in these domains.

A limited number of studies (e.g., Wagenaar & Timmers, 1967, 1969) have investigated people's ability to intuitively predict the outcome of an exponential growth process. Most of these experiments were conducted in unfamiliar domains (such as the growth of duckweed on a pond) rather than in the more familiar financial domain. An unfamiliar domain is likely to reduce the ability of participants to transfer any expertise that they might possess – an effect that has been demonstrated repeatedly in other tasks (e.g., the Wason card task). Furthermore, previous studies have not specifically looked for expertise effects or examined heterogeneity in the psychological process used to make decisions.

In these experiments, we explored the psychological underpinnings of consumer estimation of compound interest in a heterogeneous population. In particular, we examined differences in processing arising from negative vs. positive framing (e.g., debt, loans, and inflation vs. interest, raises, stocks), differences between retrospective and prospective compounding estimation (i.e., what was the cost of a TV in 1970? vs. what will be the cost of a TV in 2030?). Furthermore, we compared the effects of expertise, experiential learning, and specific training on accuracy. The normative theory is simple: given an interest rate, i , and a time horizon, n , the formula governing compound interest is $FV = PV(1 + i)^t$, where FV and PV are, respectively, the future value and present value of the investment, i is the interest rate, and t is the term.

Results demonstrated that people naturally anchor on simple interest (i.e., $FV = PV[1 + i t]$), even after extensive experiential learning, access to calculators, and irrespective of expertise in finance. Reliance on simple interest was demonstrated both by analysis of participants' open-ended responses and by the pattern of coefficients of individual-level models that were fit to respondents' estimates. Anchoring on simple interest resulted in massive underestimation for longer time horizons and for higher rates. Most of the major financial decisions that people make during their lives involve either long time periods (e.g., retirement saving, mortgages) or high interest rates (e.g., taking on credit card debt), which makes anchoring on simple interest a pernicious bias.

Financial expertise resulted in only slightly increased accuracy. Educational attainment (i.e., years of education) and collegiate major had no effect on accuracy; undergraduate students in business, MBA students, and a general population of consumers all made errors of similar magnitude. The magnitude of error was also unaffected by negative vs. positive framing (i.e., debt vs. investments).

However, all respondents found retrospective estimation (i.e., if there are FV dollars in the account today, what PV was invested n years ago at a constant interest rate, i ?) more difficult than prospective estimation.

Experiential learning with explicit, immediate, veridical feedback was somewhat effective in reducing error. However, this increased accuracy came at a high cost, as well as failing to extrapolate to novel problems. Teaching an explicit heuristic, the “rule of 72,” improved accuracy enormously. The rule of 72 is an accurate approximation of the correct financial formula, the core of which is the realization that $y = 72/i$, where y is the number of years that it takes for money invested (or loaned) at an interest rate of i to double in value. If the time horizon is known, the rule of 72 can be used to approximate the effects of compounding by computing the number of doublings implied by (i, t) , and then doubling the principle that number of times. For example, if $PV = \$1,000$, $i = 9\%$, $t = 24$ years, then an exact computation shows $FV = \$7,911$. To use the rule of 72, compute $72/9 = 8$, which demonstrates that money at 9% will double in approximately 8 years. Since the time horizon is 24 years, this represents $24/8 = 3$ doublings, which will result in a $FV_{72} = 2^3 * \$1,000 = \$8,000$ (error = 1%). Note that simple interest would provide an anchor of $FV_{SI} = \$1,000 * 9\% * 24 = \$2,160$ (error = 72%).

Expertise in estimating compound interest is strongly linked to the use of the rule of 72. If consumers anchor on simple interest, they are likely to make errors that have massive impact on their financial well being, including underestimating the cost of long-term loans (such as mortgages), saving too little and too late for retirement, and allowing credit card debt to revolve, rather than aggressively paying it down. This has been demonstrated in field data (Stango & Zinman 2009, *Journal of Finance*). Furthermore, these results shed light on the difficulty of learning nonlinear functions, even for those with substantial experience with them. Consumers can be taught to be considerably more accurate in their understanding of compounding in a very short amount of time.

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Until Debt Do Us Part: Influences of Materialism on Couples' Financial and Marital Health

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Marriage remains a foundation of American life, as over 90% of U.S. adults will marry (Tamborini 2007). Managing money is central to the healthy functioning of a marriage. Such dyadic relationships create complexities in seemingly straightforward consumer decisions. For example, consider a wife deciding whether to buy a new luxury vehicle. Predictors of her choice may include her own spending attitudes, her husband's spending attitudes, and each spouse's evaluation of the other's likely feelings about the purchase. Given this complexity, it may be tempting to consider just key characteristics of the focal person (e.g., wife's preferences); however, a great deal of research has documented that the solution to such complexities is not to ignore them (Kenny, Mohr, and Levesque 2001), but to employ techniques to capture these dyadic influences.

Despite several decades' worth of work on materialism's antecedents and consequences and calls to examine links between materialism and financial planning (Richins and Rudmin 1994), the influences of materialism on household financial choices such as debt and savings levels remain under-studied areas of consumer behavior. Among married couples, each spouse's level of materialism (here, the extent to which they seek happiness through acquiring possessions) may exert an influence over key financial outcomes.

Within a marriage, spouses are likely to be intimately familiar with one another's level of materialism, and may form evaluations about the other person's material values. A husband may wish that his wife were less (or perhaps more) materialistic, and ideals of a spouse's material values may indeed differ from the reality of his or her orientation towards possessions. Previous research on marital health has shown that ideals can often be as important as actual states in predicting relationship satisfaction (Acitelli, Kenny and Weiner 2001). Thus, to the extent that a spouse is dissatisfied with his or her partner's level of materialism, we may expect enhanced conflict over consumption decisions involving spending, saving, and the acquisition of household possessions.

Materialism and financial decisions may have important implications for marital health and longevity. Heightened materialism may also impact the marriage in other ways, such as less commitment and investment in the relationship. Moreover, economic challenges have been documented to have negative effects on marital health (Amato and Rogers 1997). If materialism predicts poor financial choices among couples, those values may also lead to conflict and decreased marital viability.

To examine these issues, we conducted a study and tested a model linking material values to divorce intentions through the intermediary variables of financial outcomes, dissatisfaction with spouse's materialism, and financial conflict. We focused specifically on seeking happiness through possessions, surmising that such materialistic values would lead to difficulties in key financial outcomes (credit card debt, creditworthiness, retirement savings, and emergency savings). We expected that materialists' emphasis on relationships with objects rather than relationships with people (Kasser 2002; Richins and Dawson 1992) would be perceived as dissatisfying to spouses. Both of these consequences of materialism – detrimental financial outcomes and spousal dissatisfaction with materialism ideals – should contribute to increased financial conflict. Finally, we hypothesized that materialism would influence divorce intentions, mediated first by financial outcomes and dissatisfaction with spousal materialism, and then more proximally by financial conflict.

We surveyed 132 married couples (264 husbands and wives) from diverse socioeconomic and demographic backgrounds, and used specialized dyadic analysis techniques for capturing the influence of each member of the couple (Kenny, Kashy, and Cook 2006). Two surveys were administered at least 5 days apart to separate constructs that could contaminate one another or produce common method bias (e.g., we separated reporting of one's own material values from reporting on dissatisfaction with the material values of one's spouse). Each member of the couple completed measures of materialism, retirement planning, credit card debt, emergency savings, credit score, dissatisfaction with their spouse's materialism, financial conflict, intentions to leave the marriage, and income (control variable).

We employed a path analytic approach that included variables assessed at both the couple level of analysis (the financial outcomes), and at the within-couple level of analysis (an individual's materialism, dissatisfaction with spouse's materialism, financial conflict, and divorce intentions). The general specifications of the model included husbands' and wives' materialism as exogenous variables that directly influenced couple-level financial outcomes and within-couple dissatisfaction with spouse's materialism. These two mediating variables then were specified to predict financial conflict for each member of the couple. Finally, financial conflict of husbands and wives was specified to predict husbands' and wives' separate divorce intentions.

In a model that fit the data well, $\chi^2(35) = 53.98, p = .02, CFI = .957, RMSEA = .064$, many of the hypothesized paths were significant and all were in the predicted direction. Despite similar levels of materialism within couples, there were differences in how these values predicted the financial outcomes. Husbands' materialism predicted higher credit card debt, lower emergency savings, and lower credit scores for the couple. Wives' materialism, however, was significantly related only to creditworthiness (but also negatively), though the path coefficient for emergency savings was similar in magnitude to the path for husbands (but reaching only a marginal level of

significance). Neither husbands' nor wives' materialism levels predicted planning for retirement. Anticipated partner effects were present for the links between materialism and dissatisfaction with spouse's materialism. That is, a husband's level of materialism was positively related to his spouse's dissatisfaction with his materialism, and a wife's level of materialism was positively related to her spouse's dissatisfaction with her materialism. Dissatisfaction with spouse's level of materialism was related to both financial conflict variables, suggesting both actor and partner effects. For example, wives' dissatisfaction with husbands' materialism contributed to their own perceptions of conflict over family financial decisions, as well as their spouses' perceptions of conflict. As for the financial outcomes predicting financial conflict, only the paths from credit score were significant. Both husbands' and wives' divorce intentions were affected by financial conflict, but this influence stemmed solely from the husband's conflict perceptions. Implications of these findings for materialism research, and influences of consumer culture on financial and marital health will be discussed.

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3.8 Symposium: “If You Want My Opinion...”: The Transmission Agent in Consumer Word-of-Mouth

Room: Maple Room C

Chair: Sunaina Chugani, University of Texas at Austin, USA

Discussion Leader: Peeter Verlegh, Erasmus University Rotterdam, The Netherlands

The Speaker's Dilemma: Word-of-Mouth and the Communication of Preference

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Stephen Xihao He, Georgia Tech, USA*

Talya Miron-Shatz, University of Pennsylvania, USA

Mirroring recent growth in social networks and consumer-generated content, word-of-mouth (WOM) research has regained attention in marketing theory and practice. Among various purposes served by consumer WOM, one important function is to communicate speakers' evaluations of goods or services, and this advisory role of WOM is perhaps most clearly illustrated by online product reviews. A burgeoning literature has explored the content of these communication efforts and their relation to audience inferences, persuasion, and firm performance (Chevalier and Mayzlin 2006; Weiss, Lurie, and MacInnis 2008; Schellekens, Verlegh, and Smidts 2010). In contrast, we focus on the ability of consumer WOM to perform its basic communication function. This issue is important to consumers and marketers alike, as more accurate WOM not only benefits consumer decision processing, outcomes, and satisfaction, but also enables more efficient use of WOM as a communications and feedback tool.

Consumers exchange WOM in a variety of forms varying in richness and complexity. We focus on two distinctive forms that represent opposite extremes: attribute ratings and narratives. For example, when sharing our opinions about a product online (e.g., a hotel stay), some forums allow open-ended discussion of anything deemed relevant (e.g., a description of our experience), while other forums restrict communication to ratings of specific features (e.g., cleanliness, location). Each format has distinct advantages for communicating one's opinion. Attributes are concise and easily understood; to the extent that relevant attributes are included, this format is consistent with multi-attribute utility models (Holbrook and Havlena 1988), enabling recipients to 'calculate' a sender's opinion. Narratives are not conducive to such mental calculation, as receivers must derive a sender's opinion holistically. Furthermore,

the process of verbally transcribing one's opinions is inherently noisy. However, narratives provide a far richer context offering its own advantages (e.g., West, Huber, and Min 2004; Escalas 2007). Narratives allow speakers to express not only 'pros and cons', but also the idiosyncratic importance of those pros and cons to that speaker. In addition, narratives aggregate components of a consumption experience to convey an overall impression, while attributes artificially separate the experience in a manner that may exaggerate single positive or negative aspects (Thaler 1985). Importantly, both these advantages are compounded for very positive or negative experiences, which often result from extreme performance on a few important dimensions. Therefore, building on prior evidence that narratives elicit stronger affective reactions (Adaval and Wyer 1998), we suggest that narratives are particularly suited to the transmission of highly valenced opinions, so that any advantage of attributes over narratives in communicating evaluations will be attenuated when those evaluations are extreme.

Utilizing actual consumer reviews from a popular travel website, Study 1 examined individuals' ability to predict the hotel evaluations of reviewers. Twenty five reviews (each from a different hotel) were selected from the website using a stratified random sampling procedure. Undergraduate participants (N=109) were assigned to one of three conditions: participants in the *narrative* condition were given the body of review text to read; participants in the *attribute* condition were given the reviewers' rating of specific attributes (e.g., "service = 3/5"), and participants in the *combination* condition were given both forms of content together. Participants read reviews for five different hotels, one at a time. After reading each review, they were asked to estimate what overall rating the reviewer gave for the hotel (on a 5-pt. scale).

Rating discrepancies were calculated by taking the absolute deviation between a participant's estimate and the reviewer's overall rating. Descriptive analyses revealed that the *combination* condition resulted in directionally less discrepancy than the *attribute* and *narrative* conditions. Interestingly, participants also spent significantly less time in the *combination* condition, suggesting a synergistic effect by which the combination leads to more efficient communication. Most importantly, in support of our hypotheses, analysis revealed a significant interaction between information type and hotel rating. For hotels rated far from the mean, narratives were more effective than attributes; while for medium-rated hotels, attributes were more effective.

A follow-up analysis explored whether the effectiveness of narratives related to their linguistic content. Each of the 25 narratives was analyzed using the Linguistic Inquiry and Word Count tool (Pennebaker, Booth, and Francis 2001), which categorizes words from a target script into over 70 linguistic or psychological categories. To our knowledge, this is the first application of the tool in a consumer review setting, and descriptive analyses yielded interesting insights (e.g., positive emotional content dramatically outnumbered negative content - Liu 2006). More accurate communication was significantly related to various linguistic characteristics (use of first-person singular, articles, impersonal pronouns, etc.); surprisingly, longer reviews did not necessarily enhance communication (c.f. Mudambi and Schuff 2010). In keeping with our arguments regarding the difficulty of transcribing one's opinion, words describing cognitive processes accounted for fully 16% of review content, and greater use of these words was a significant predictor of discrepancy. Moreover, cognitive process content was found to significantly mediate the effect of extremity, supporting the notion that less extreme reviews include more idiosyncratic theorizing and induce more communication error.

Existing research indicates that vividness and imagery have powerful effects on preference and persuasion (Keller and Block 1997). Building on the findings of Study 1, we suggest that disadvantages of narrative word of mouth should be mitigated when readers engage in visualization, because: 1) stories are inherently more vivid and imaginable than attributes, and 2) the cognitive process content found to underlie error in Study 1 is likely to be underutilized in visualization. This hypothesis was tested in Study 2, which utilized a procedure modified from the first study. The design included all three review formats and an additional between-subjects factor: participants in the *visualization* condition were asked to imagine what the reviewer's hotel stay was like, while those in *control*

condition were given no special instructions. Analysis of results for the control group revealed a pattern consistent with the findings of Study 1. More importantly, a three-way interaction indicated that although visualization diminished the communication accuracy of attribute-based reviews, its effect on narrative reviews depended on the extremity of the evaluation. As hypothesized, visualization enhanced the effectiveness of narratives conveying very high or low ratings; surprisingly, the opposite occurred for moderate ratings.

Taken together, our results provide useful insights regarding the utility of consumer WOM for performing a basic but critical function: communicating the speaker's preference. As such, this research represents an initial foray into a topic of growing importance to the field of consumer behavior. In addition, our findings have important implications for marketers interested in utilizing WOM communications to inform or influence consumer learning, choice, and satisfaction.

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Answering Why: How Explanations Influence Speakers

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WOM, where individuals share information about consumption experiences with others, is an everyday occurrence. WOM spreads through various media, both traditional (face-to-face) and non-traditional (online reviews). Past research has focused on how WOM influences those who hear it (Arndt, 1967) and how this influences the firm (Chevalier and Mayzlin 2006). However, a fundamental question remains unanswered: how does WOM influence the transmitter?

We argue that it is not simply the act of speaking that influences individuals sharing WOM, but that it is story content or how things are said that strongly influences storytellers. We focus on one important type of story content. Past work suggests that individuals can understand and recover from traumatic experiences by building narratives around them and figuring out why they occurred (Pennebaker 1997). Thus, we focus on whether storytellers explain why events occurred or explain why they feel the way they do about experiences, and examine how this explaining language influences transmitters. We suggest that the use of explaining language changes evaluations since it leads individuals to understand their experiences, where understanding makes positive experiences less positive and negative experiences less negative (Gilbert, Wilson, and Centerbar 2003).

We contribute to this literature by focusing on how specific types of language influence understanding. We focus on explaining language, and differentiate between two types of explanations in storytelling (Malle 2006). Action explanations are used to explain intentional and observable events such as why consumers choose experiences (e.g. I bought the cookies for his birthday present). Experience explanations are used to explain unintentional and unobservable events such as why consumers feel the way they do about experiences (e.g. I liked the cookies because they were chewy). Given that consumers intentionally engage in and purposely choose particular experiences, we predict that action explanations should influence transmitters less strongly than experience explanations, which are likely unknown to consumers until they are expressed.

In four studies, we demonstrate that explaining language can cause paradoxical effects of WOM. Specifically, explaining positive experiences decreases transmitters' evaluations of and their willingness to repeat and recommend experiences. Conversely, explaining negative experiences increases transmitters' evaluations of and their willingness to repeat and recommend experiences. Finally, explaining an experience makes consumers less likely to spread future WOM by telling others about the experience. These effects are

particularly strong when consumers explain why they liked or disliked an experience, as compared to when consumers explain why an experience occurred.

In study 1, we collected and coded Amazon.com book reviews for explaining language use. We found that individuals rating books extremely, at one or five stars, used less explaining language than individuals rating books less extremely, at three stars; we observed these effects using both an across reviewer data set and a within-reviewer data set. Thus, in this correlational study, explaining language was associated with less extreme evaluations of positive and negative experiences.

In study 2, we used a lab setting and provided individuals with a constructed story for which they filled in the blanks. We had an explain, a describe, and a no-writing control condition, where the only difference between the describe and explain conditions was an explaining clause at the end of some sentences (e.g. "Dinner was ____." vs. "Dinner was ____ because ____."). Thus, this study controls for various potential differences in storytelling language beyond explaining (e.g. evaluation inconsistent information, emotionality, detail) and varies only whether individuals provided explanations or not. This study replicated study 1: individuals in the explain condition had less extreme positive and negative evaluations than individuals in either the describe or the control conditions.

In study 3, we examined how different types of explanations influence the transmitter. We used a lab setting and asked individuals to recall and write about a recent consumption experience. We replicated our basic effect from studies 1 and 2, whereby explaining positive experiences decreased evaluations and explaining negative experiences increased evaluations. We also measured the types of explanations individuals used in their stories and found preliminary evidence that experience explanations were more influential in dampening transmitters' evaluations than action explanations.

However, study 3 measures instead of manipulates language use; thus, in study 4 (data collection underway), we will use a constructed story as in study 2. For this study, we will manipulate whether participants provide action versus experience explanations when filling in the blanks in the constructed story. We expect to replicate our results from study 3, such that individuals who provide experience explanations should show more dampened evaluations than those who provide action explanations.

In sum, we examine a critical but understudied issue in WOM. While past research has indicated that WOM influences listeners (Arndt, 1967), it is vitally important to understand how WOM influences the transmitter. We go beyond previous work to highlight WOM content and demonstrate how that content influences critical downstream consequences for the transmitter. We show that sharing positive stories can be bad for the transmitter while sharing negative stories can be good for the transmitter, depending on their story-telling language. Using explaining language, especially experience explanations, can dampen evaluations of positive experiences and improve evaluations of negative experiences; these evaluative changes are linked to changes in intentions to repeat and recommend experiences.

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Practice What You Preach?

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Susan Broniarczyk, University of Texas at Austin, USA

We take the intriguing position that there is an inherent mechanism built into transmitting goal-related recommendations that leads the transmitter to engage in advice-inconsistent behavior. We posit that when giving advice to pursue (disengage from) a goal, the advisor's expectation that the advice will be acted on allows him to vicariously experience goal progress (regression) through the expected advice-congruent behavior of the recipient. Via goal balancing, this progress (regression) leads the advisor to subsequently disengage from (engage in) the goal (Fishbach and Dhar, 2005) exhibiting advice-inconsistent behavior. Eliminating the expectation that advice will be acted on (thus taking away the unique vicarious nature of advice-giving), mechanisms such as the desire for consistency, self perception, and goal priming will lead transmitters to engage advice-consistent behavior. Three studies explore these predictions.

Participants in Study 1 advised a friend about whether to stick to a healthy eating goal or indulge for a special occasion. Advice given was manipulated between subject: to induce participants to give pursue (disengage from) goal advice, scientific evidence was presented stating that individuals should never indulge (indulge occasionally) to increase goal achievement likelihood. After giving advice, participants indicated their preference on an 8-point scale between an unhealthy (1) and healthy snack (8), presented as being a token of thanks while actually serving as a measure of goal-related behavior. As hypothesized, participants who gave advice to stick to the healthy goal preferred the unhealthy snack more ($M = 3.6$) than those who gave disengage advice ($M = 4.7$, $F(1,37) = 5.15$, $p < 0.05$).

Study 2 examined the underlying mechanism by varying whether advisors perceived that advice was acted on. Additionally, we examine the moderator of goal strength. A transmitter will be more attuned to the discrepancy between the current and desired end-state with a goal s/he is concerned with and invested in. Therefore, we make the counterintuitive prediction that individuals with high (vs. low) goal strength will be more likely to behave in an advice-inconsistent manner. First, participants gave advice to a friend about whether to study for an exam (pursue academic goal) or attend a party in a neighboring city over the weekend (disengage from academic goal). Advice given was manipulated between-subject: to induce participants to give pursue (disengage) advice, the test was framed as important (unimportant) and the party as unimportant (important).

After writing down their advice, participants were asked to imagine they called their friend over the weekend to find the friend either acting on given advice or not acting on advice given due to external circumstances. Participants were then directed to an ostensibly unrelated task where they indicated their preference between watching two videos on an 8-point scale: one unrelated to the goal (1 = clips from funny TV shows) and one congruent with the academic goal (8 = how to retain more from studying). Participants watched the videos and answered video questions to complete the cover story. Finally, participants reported the extent to which doing well in school was a priority for them, which served as a measure of academic goal strength.

There was a three-way interaction between advice given, advice acted on, and goal strength on preference between the videos ($F(1,83) = 3.83$, $p = 0.05$). Spotlight analysis (Irwin and McClelland, 2001) indicated that the interaction between advice given and advice acted on was absent among participants with low academic goal strength ($F(1,83) = 0.09$, *NS*) and present among participants with high academic goal strength ($F(1,83) = 10.06$, $p < 0.01$). Among those with high goal strength who learned that their advice had been acted on, those who gave advice to pursue the goal were subsequently less likely to prefer the goal-related video than those who gave

advice to disengage ($F(1,83) = 3.58, p = 0.06$) replicating the pattern of advice-inconsistent behavior from Study 1. Conversely, those who learned their advice had not been acted on behaved in a pattern of advice-consistent behavior: giving advice to pursue the goal led to a higher preference for the goal-related video than giving advice to disengage ($F(1,83) = 7.14, p < 0.01$).

Study 3 explored an application of these findings: what is the effect of giving advice to another versus the self? Replicating Studies 1 and 2, we expect that when the recipient is another, the transmitter will behave in an advice-inconsistent manner. In contrast, when the recipient is the self, the transmitter does not have the luxury of expecting advice will automatically be acted on. Therefore we expect the transmitter to behave in an advice-consistent manner after giving the self advice. This study utilized an advice given (pursue vs. disengage from academic goal) x advice recipient (other vs. self) x goal strength design, with advice given and advice recipient manipulated between subject and goal strength measured. Participants responded to Study 2's scenario and advice given manipulations. The target of the scenario and advice was either the self or another person, and subsequent goal-related behavior and goal strength were measured as in Study 2.

As expected, there was a 3-way interaction between advice given, advice recipient, and goal strength ($F(1,80) = 4.34, p < 0.05$). Spotlight analysis found the interaction between advice given and recipient absent among those with low goal strength ($F(1,80) = .30, NS$) and present among those with high goal strength ($F(1,80) = 0.83, p < 0.01$). We see a pattern of advice-inconsistent behavior when the recipient is another person and goal strength is high: giving advice to others to pursue the academic goal resulted in a lower preference for goal-related video than giving advice to disengage ($F(1,80) = 4.55, p < 0.05$). The pattern reverses to yield advice-consistent behavior when the self is recipient: giving advice to pursue the goal resulted in a higher preference for the goal-related video than those giving advice to disengage ($F(1,80) = 3.39, p = 0.07$).

In sum, while the literature has explored how influences from the social environment impact a recipient's goal pursuit (Fitzsimons and Finkel, 2010; Lockwood and Pinkus, 2008), it has largely been silent on the effect of offering goal-related recommendations on the transmitter of those recommendations. This research sheds light on this underexplored area and provides evidence across two goal domains for the position that transmitters experience goal progress/regression when giving goal-related advice to others, leading to advice-inconsistent behavior.

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4.1 Symposium: How Visual and Verbal Information Cues Interact to Affect Consumer Perception and Behavior

Room: Grand Ballroom A

Chair: Xiaoyan Deng, Ohio State University

Discussion Leader: Barbara Kahn, University of Miami, USA

Blinding Beauty: When and How Product Attractiveness Overpowers Negative Information

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C.W. Park, University of Southern California, USA

Andreas Eisingerich, Imperial College, United Kingdom

Visual product attractiveness can have a powerful effect on consumers by inducing positive affect, biasing choices, and generating particularly rich and favorable inferences about missing product attributes. What happens, however, if an attractive product is accompanied by less-than-stellar functionality information? Can beauty override such information, and if yes, when and through what psychological mechanism? To answer these questions, the present study investigates how two particular factors – presentation order and type of functionality information – interact to determine the impact of product attractiveness on consumer judgments. Recent research suggests that, when an attractive product picture is presented first, it elicits an affective reaction that can positively bias the subsequent processing of verbal information, (i.e., a primacy effect). In real life, however, consumers sometimes hear or read negative functionality information about a product before experiencing its attractive design. A primacy effect would dictate that the functionality information may override the effects of the attractive picture. Yet prior research on order effects suggests that the opposite effect may also occur – namely that the product picture will appear particularly salient when seen last, thus creating a recency effect that could overpower the functionality information.

To test whether product attractiveness will have a stronger positive impact when encountered *first* or *last* (i.e., whether a primacy or recency effect occurs), we conducted a 2 (presentation order: picture-first versus picture-last) x 2 (functionality level: high versus low) between-subjects study. Participants were presented with the picture of an attractive computer and with fictitious consumer reviews depicting the computer as either high (4.8 out of 5 stars) or low (2 stars) in functionality. Half of the participants saw the computer image before the reviews, while the remaining participants saw the two in the opposite order.

The results revealed an interaction between functionality and order on product evaluations, such that, when the picture was presented *first*, consumers' evaluations differed significantly between the high- and low-functionality groups. However, when the picture was presented *last*, product evaluations were just as favorable in the low-functionality group as they were in the high-functionality group. The results were driven by a strong recency (rather than primacy) effect in the low-functionality condition along with a lack of order effects in the high-functionality condition. They suggest that, when a visually appealing product is presented last, attractiveness can completely override the impact of negative information. We call this the “blinding beauty” effect. In Study 2 we showed that this effect happens only for attractive, but not for unattractive products, suggesting that it is driven specifically by product attractiveness as opposed to product appearance in general.

Study 3 aimed to explore this effect in the context of another factor – functional attribute observability – and to elucidate the mechanism through which the effect occurs. It employed a 2 (presentation order: picture-first vs. picture-last) x 2 (attribute observability: high vs. low) between-subjects design. Participants were presented with the same attractive computer as in Study 1, along with reviews about computer attributes that differed in the extent to which they could be verified through visual product inspection – e.g., processor speed (unobservable) versus physical stability (observable) – but were perceived as equally important. The reviews depicted the computer as either superior on the observable attributes and inferior on the unobservable ones, or vice versa, so that all reviews included some type of poor functionality information. Since Study 1 has shown that pairing the attractive computer with high functionality information produces no order effect, any effects seen in this study would be driven by the low-functionality information contained in the reviews.

The results revealed an interaction between attribute observability and order, such that, for unobservable product attributes, product evaluations were significantly higher in the picture-last condition. However, for the observable product attributes, evaluations were equally low in both conditions. This suggests that pairing an attractive product with visually verifiable negative information represents a boundary condition for the blinding beauty effect.

We further investigated the mechanism that consumers employed in the picture-last/unobservable attribute case in order to resist the impact of negative information. We found that respondents in this group did not perceive the negative information to be any less extreme, credible, or important compared to respondents in the other groups. They also did not experience the product appearance to be any more attractive or conducive to hedonic benefits (such as making one's life pleasant). They did, however, employ the product picture as a source of information differently from the other respondents. More specifically, they perceived the product picture to convey higher quality, and drew on the picture (rather than the negative functionality information) to make inferences about missing product attributes. As a result, when asked to rate the computer on a set of functionality attributes for which no previous specifications had been provided, they believed the computer to score particularly high on those attributes. Moreover, we found that both picture-based quality perceptions and new attribute inferences fully mediated the impact of presentation order and functionality information observability on consumers' product evaluations.

The present research thus shows that a beautiful product picture can completely overpower negative functionality information, but only when presented last and paired with functionality attributes that cannot be physically observed. We believe that when the attributes can be at least partially verified through visual inspection, negative information about such attributes will be directly related to the product's physical appearance. As a result, the benefits of the product's beauty will be perceived as unsustainable, and the value of beauty will be discounted from consumers' judgments. Moreover, the results show that, when consumers exposed to an attractive product resist negative information they do so by isolating the effect of such information to the target attributes and using the product's attractiveness as an information source for all other, missing functional attributes. Consumers hence do not appear to be biased by beauty based on pure affect. Instead, they process beauty in the context of the negative information encountered, and use it as an input for product judgments only when they perceive it to be a valid source of information.

Making Functional Inferences Based on Product Design: The Effects of Design Newness

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Jan P. L. Schoormans, Delft University of Technology

Functional attributes of products are sometimes difficult or even impossible to verify at purchase. Accordingly, consumers turn to alternative indicators, such as price, brand and/or visual product design to make judgments about these attributes (Bloch, 1995; Creusen & Schoormans, 2005; Dawar & Parker, 1994). A few studies have focused on the relationship between product design and the perceived functional attributes. Summarizing, it has been shown that more attractive products are perceived to be of higher quality (Page & Herr, 2002; Veryzer & Hutchinson, 1998) and easier to use (Tractinsky, Katz, & Ikar, 2000). This consistency argument is known as the “What is beautiful is good”-principle (Dion, Berscheid, & Walster, 1972). However, research on person perception has demonstrated that this consistency argument is insufficient to explain all the inferences prompted by the physical appearance of people (Hellström & Tekle, 1994). For example, while glasses decrease a person’s attractiveness, they increase perceived intelligence. Correspondingly, we propose that consumers may use other visual characteristics of product design (e.g., design newness) as diagnostic cues to draw inferences about functional attributes, in addition to the effect of attractiveness. This research contributes by investigating the value of design newness for prompting inferences about performance quality and ease of use. Design newness implies the deviation in a product appearance from the current design state of the product category (Talke, Salomo, Wieringa, & Lutz, 2009). We examine the effects of design newness within the context of the accessibility-diagnostics model (Feldman & Lynch, 1988), which suggests that the likelihood that a cue is used for judgment is determined by the accessibility and diagnosticity of this and other cues.

If a product incorporates new functional features, this technical newness is interpreted as a signal of additional value (Mukherjee & Hoyer, 2001), and therefore, the product is perceived to have greater performance quality. Nevertheless, higher levels of technical newness may also have a negative effect on performance quality. The newer a technological innovation is, the greater consumers’ uncertainty about its performance (Hoeffler, 2003). This suggests that the relationship between technical newness and performance quality is curvilinear and an optimal level of technical newness exists. Even though an actual relationship between design newness and technical newness is often non-existent, consumers do expect this relationship to be present because this suggests a state of congruity between the product’s aesthetic and functional features (Rindova & Petkova, 2007). As a result of this association with technological advancement, we hypothesize an inverted U-shaped relationship between design newness and perceived performance quality (H1). As a consequence of their unfamiliarity with new functional attributes, consumers may also draw negative learning cost inferences. New functional attributes may be difficult to understand, resulting in lower ease of use perceptions (Mukherjee & Hoyer, 2001; Ziamou & Ratneshwar, 2002). Because of the expected state of congruity between technical and design newness, the level of design newness is also diagnostic for judgments of a product’s ease of use. We thus hypothesize that a negative relationship exists between design newness and perceived ease of use (H2).

These hypotheses were tested in Study 1. Six 3D-drawings of a hairdryer were used as stimuli. All shapes were created by a trained designer to encourage differences on the level of visual design newness, while minimizing objective variations concerning functionality or usage. Subjects indicated their expectations about the performance quality and ease of use of one hairdryer. Attractiveness was included as a covariate to control for the ‘What is beautiful is good’-principle. ANCOVAs with polynomial contrasts demonstrated a quadratic trend between design newness and perceived performance quality. Furthermore, a negative linear relationship was found between design newness and perceived ease of use.

Study 2 extended these findings by investigating the relative diagnosticity of design newness in comparison to other cues. When two cues are equally accessible, the more diagnostic cue will guide the judgment. Past research has demonstrated that attractiveness only affects the quality perception when the more diagnostic cue of brand is absent (Page & Herr, 2002). Similarly, the presence of a high level of technical newness in a product may serve as a more diagnostic cue for performance quality and ease of use perceptions than design newness. Accordingly, we hypothesize that the visual design newness cue only impacts perceived performance quality (H3a) and ease of use (H3b) in the absence of an accessible high level of technical newness.

The study used a 2 (design newness: low vs. high) x 2 (technical newness: low vs. high) between-subjects design. Design newness was manipulated by digitally changing the color (white vs. black) of a washing machine, which resulted in moderate levels of design newness. Technical newness was manipulated by digitally changing the controls (buttons vs. touch screen). In support of H3, significant interaction effects between design newness and technical newness were found. Design newness positively affected perceived performance quality and had a negative effect on ease of use, but only when no easily accessible technical newness was observed.

In Study 3, we examined how individual differences regarding the accessibility of technical information can affect the diagnosticity of design newness for prompting inferences about performance quality and ease of use. Expertise plays a central role in consumers' ability to elaborate and understand a product's verbal technical information (Alba & Hutchinson, 1987). Novices may find it difficult to comprehend the verbal technical information and are thus more likely to turn to alternative cues, such as the level of design newness, for drawing inferences about functional attributes (H4). A regression analysis indeed revealed a significant interaction between design newness and expertise on the perceived ease of use of a digital camera.

In conclusion, our research demonstrates that design newness is used as a diagnostic cue for a product's perceived performance quality and ease of use, in addition to the 'What is beautiful is good'-principle. More importantly, higher levels of design newness can have both positive and negative effects. Finally, we demonstrate that the likelihood that design newness is used as a cue depends on the presence of technical newness and consumers' expertise.

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How Packaging Cues Affect Consumer Judgment and Behavior

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Since half or more of purchase decisions are actually made in the store and because of rampant media fragmentation, the retail environment is becoming the new *Ed Sullivan Show* for creating brand preferences. This phenomenon has spawned a new emphasis on "shopper marketing," which means looking at the consumer decision making from the store back and identifying what might influence the shopper at the point of sale. This perspective suggests a new research focus on packaging design, in-store signage, thematic displays, and shelf layout.

From past research, we know that consumers perceive food products whose packaging displays the food image in the lower location to be heavier than food images that are located in the top location (Deng and Kahn 2009). If a heavier or more filling food product is desired, which is generally the case when there are no health goals, the package that has the visual food image in the lower location is preferred. We build on this robust “location effect” and combine it with another packaging factor, the presence of ambiguous or unambiguous verbal information cues about the product, to show how packaging elements can influence consumer behavior.

Ambiguity is defined as “the potential for multiple interpretations” of the product’s quality (Hoch and Ha 1986, 1989). When cues are ambiguous, highly motivated shoppers are more likely to search for information to make the ambiguous situation more conclusive (Peracchio and Meyers-Levy 1994). We hypothesize that when shoppers are considering healthy food options, they will perceive verbal package claims of “low-calorie” as ambiguous as opposed to unambiguous claims such as “100-calories” packets. When faced with the ambiguous cue, shoppers will be motivated to search the package for other cues to resolve the ambiguity. One method of evidence could be a supporting visual cue, which can reaffirm the verbal information cue on the package. Since visual cues tend to be more holistic in their focus while verbal cues tend to be analytical (Holbrook and Moore 1981), if the verbal cues are ambiguous shoppers may shift to analyze visual cues to understand their meaning (Holbrook and Moore 1981). We hypothesize that the location of the product image can be a visual cue indicating the perceived heaviness (or lightness) of the product that can be used to reinforce the ambiguous verbal claim.

This idea that shoppers are likely to search for confirming evidence when faced with ambiguous cues, is reinforced by research done on “puffery” in advertisements, or advertised product descriptions that provide little information. Shoppers think advertisements are meant to provide new and meaningful information and may try to construe the message they think the advertiser means to portray if it is not clear (Jing Xu and Wyer Jr. 2010, Wyer and Gruenfeld 1995). Since the “Low-Calorie” claim is vague, shoppers may use the product image in the higher, lighter location to infer that the product is in fact not fattening.

Using cookie packages as stimuli, in study 1 we examine how verbal and visual packaging cues interact to influence shoppers’ purchase decisions. We manipulate the ambiguity of verbal cue using two nutrition claims: “Low Calorie” (ambiguous verbal cue) versus “100 Calorie” (unambiguous verbal cue). For each type of verbal cue, we further manipulate visual cue by varying the location of the cookie image illustrated on the package: top versus bottom. We expect that, when the ambiguous “Low Calorie” claim is present, shoppers will be motivated to interpret this claim so that its ambiguity decreases and certainty increases (Peracchio and Meyers-Levy 1994). Because top location induces a lightweight perception that is compatible with this verbal claim (Deng and Kahn 2009), shoppers would prefer packages using top versus bottom locations. Whereas when the unambiguous “100 Calorie” claim is present, there should be no effect of location of product image.

Based on Study 1, Study 2 (in progress) examines the verbal and visual cue interaction when a shopper is in a mindless state, as might happen under time pressure. Further in this study, we will portray package images as if they were on a shelf in order to replicate a real shopping experience. A 2 (cognitive resource: high vs. low) x 2 (“Low Calorie” as verbal cue: present vs. absent) x 2 (cookie location as visual cue: top vs. bottom) between-subjects design will be used. We predict when shoppers have sufficient cognitive resources, they can process verbal cues, so when the cue Low Calorie is present they will prefer top location (as in study 1). When there is no verbal cue, they will infer information from only the visual cue and will prefer bottom location as it has been shown previously that in food categories when health goals are not present or reinforced, the heavier location is preferred (Deng and Kahn 2009). When shoppers have limited cognitive resources, they cannot process verbal cues, so they will again prefer the bottom location regardless of whether the Low Calorie cue is present or not.

Study 3 extends Study 2 by showing that, when shoppers are in a mindless state, packaging cues not only affect consumers' preferences but also their actual consumption. In this study, we only focus on the visual cue. A 2 (cognitive resource: high vs. low) x 2 (cookie location as visual cue: top vs. bottom) between-subjects design is used. We hypothesize and show that with limited cognitive resources, consumers will eat less from the package with the cookie image located at the bottom because they perceive the cookies to be heavier and more filling (Deng and Kahn 2009). Whereas when they have sufficient cognitive resources, this effect will not hold.

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4.2 Symposium: Gift Giving Gone Wrong: Discrepancies between Giver and Recipient Perspectives Lead to Suboptimal Gift-Giving Decisions

Room: Pine Room

Chair: Mary Steffel, University of Florida, USA

Social Comparison in Decisions for Others: Considering Multiple Gift Recipients Leads To Overly Individualized and Suboptimal Gifts

Mary Steffel, University of Florida, USA*

Robyn LeBoeuf, University of Florida, USA

Gift-giving can be a challenge: It can be hard to find an affordable item that a recipient is sure to love. Sometimes, this challenge is compounded by having to choose multiple gifts for multiple recipients at once, as when one is doing holiday shopping for a long list of recipients. Having multiple recipients in mind not only means that more gifts are needed, but it may also mean that gift givers consider the recipients in relation to each other, selecting gifts by deciding which recipient is the most avid reader, which is the biggest sports fan, which has the best sense of humor, and so on. This research examines how considering recipients in comparison to each other affects the quality of the gifts that people choose. We hypothesize that selecting gifts for multiple recipients at once can highlight irrelevant social comparisons and lead to suboptimal gift selections.

Of relevance to the current work, prior research suggests that considering alternatives together versus in isolation can focus people's attention on different attributes and lead to different choices (e.g., Hsee, 1996; Hsee & Leclerc, 1998). We specifically suggest that social comparisons are more likely to be salient when people choose gifts for multiple people than when they choose for only one person. When choosing for multiple recipients, people may not only try to select a gift that is most appropriate for a person in an absolute sense (i.e., what gift might be most liked), but may also try to select a gift that that the recipient will like better than other salient individuals will (i.e., what gift might be uniquely suited for a person relative to others).

Although it may be legitimate, and even important, to differentiate individuals in gift giving when recipients are likely to compare gifts, if recipients are unlikely to be aware of other recipients (or unlikely to compare gifts), then gifts that are superior in an absolute sense are likely to be better appreciated than gifts that are only better on a relative dimension. Gift givers who focus on selecting a gift that is *uniquely* appropriate for a recipient may end up selecting a suboptimal gift by underweighting other important aspects of a gift, such as likeability or usability.

In Study 1, undergraduates ($N = 133$) selected a DVD for one or two recipients (Steph and Stacie): both recipients preferred animated movies most, but they had different second-most preferred genres. Available DVDs included one animated movie and 24 movies from other genres. Participants selected a DVD for their friend(s) and predicted how much their friend(s) would like the DVD on a scale ranging from 1 = *very little* to 7 = *very much*.

Givers were less likely to give the only available animated movie when there were two recipients (vs. one). Whereas 84% of participants in the one-person condition selected the animated movie for Steph, only 54% of those in the two-person condition gave Steph this movie, $\chi^2(1) = 8.64, p = .003$. Similarly, 82% of participants in the one-person condition and only 63% of those in the two-person condition gave Sarah the animated movie, $\chi^2(1) = 4.00, p < .05$. (Despite this, givers recognized that both recipients would like the animated movie more than the other chosen movies. For each recipient, participants who selected a non-animated movie predicted that the recipient would like the movie less than did participants who selected the animated movie (both $ps < .001$.) This study provides initial evidence that people give suboptimal gifts when considering gift recipients jointly, instead of in isolation.

Study 2 was designed to replicate and extend Study 1's results, as well as to examine more closely the role of social comparisons in the current effects. Undergraduates ($N = 120$) selected a birthday card for one or two unacquainted recipients (Rob and Pete): In a profile picture, Rob was shown laughing, suggesting that he had a better sense of humor than Pete. Four cards were available; pretesting showed that one card was liked much more, and was seen as much funnier, than the other three cards (all $ps < .001$). Participants chose a card for each friend and predicted how much their friends would like the chosen card on a scale ranging from 0 = *not at all* to 5 = *very much*.

Although Rob (the laughing recipient) was just as likely to receive the better-liked, funnier card in the two-person condition (67%) as in the one-person condition (70%), $\chi^2(1) = .38, p = .54$, Pete (the recipient who was not shown laughing) was far less likely to receive the better-liked card in the two-person condition (26%) than in the one-person condition (70%), $\chi^2(1) = 9.03, p = .003$. (As in Study 1, givers who gave one of the other (non-target) cards predicted that the recipient (whether it was Rob or Pete) would enjoy that card less than did givers who gave the target humorous card (both $ps < .05$.) Although the target card was the overwhelming choice for either recipient in isolation, when the recipients were considered jointly, only the recipient who may have had a better sense of humor was given that target card.

These studies show that choice contexts can highlight irrelevant social comparisons and distort choice. Givers who are selecting gifts for multiple recipients pass up superior options in favor of "unique" gifts even when recipients will never compare gifts and even when givers recognize that the chosen gifts will be liked less. We will conclude by considering the roots of the tendency to sacrifice liking for uniqueness: givers may fail to consider that the social context in which they select gifts differs from the context in which recipients evaluate gifts.

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The Role of Expectations in Unfolding Experiences

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Suppose you bought a present for your friend, and the store offered an option of gift wrapping at additional cost, or suppose your waiter in a restaurant suggested a glass of a special champagne before your meal. People generally believe that adding positive aspects to an experience will make the experience better. Therefore, we wrap gifts attractively to raise enjoyment of the gifts, and sometimes a glass of champagne before having a meal to make the experience better. Of course, adding positive features to the beginning of an experience increase enjoyment of the experience, but it can also trigger unexpected effects. Positive moments early in an experience can establish high expectations against which the subsequent moments are compared.

A large body of research has demonstrated that hedonic experiences can be contrasted with a prior expectation when there is a large discrepancy between the expectation and the actual experience. Drawing from research on this expectation-disconfirmation model, we propose that adding positive moments early in an experience may result in lower satisfaction if subsequent moments in the experience do not meet the high expectations set by the early moments. For example, gift wrapping can decrease the liking of the gift, and great tasting champagne can detract from the rest of the dinner by establishing high expectations that are not met.

Study 1a examines people's lay beliefs about the effects of wrapping on evaluations of gifts. The results show that people believe gift wrapping increases liking of a gift regardless of the attractiveness of the gift (e.g. attractive DVD: the Lord of the Rings or unattractive DVD: Microcosmos documentary). Study 1b compares the enjoyment of wrapped and unwrapped presents to test the accuracy of the beliefs documented in study 1a. In study 1b, participants evaluated a hypothetical gift from a friend in a 2(wrapped vs. unwrapped) X 2(attractive vs. unattractive gift) between subjects design. Participants in the wrapped condition were told that their friend gave them a birthday present and were shown a picture of an appealing wrapped gift box. On the next page, participants imagined that they found a DVD set when they opened the wrapping. People in the unwrapped condition simply imagined that their friend gave them a DVD set as a present. Half of the participants in each condition were told the DVD set was the Lord of the Rings (attractive condition) or Microcosmos documentary (unattractive condition). The results showed that for the attractive gift, participants showed a non-significant trend toward liking the gift more when it was wrapped compared to unwrapped. However, for the unattractive gift, participants liked the gift significantly *less* in the wrapped condition than the unwrapped condition. This result partially contradicts the lay beliefs in study 1a that gift wrapping raises evaluations of both attractive and unattractive gifts.

The result of Study 1b supports our proposition that appealing gift wrapping sets high expectation for the gift and can decrease the evaluation of unattractive gifts. In Study 2, we manipulate the level of expectations established by using both appealing and unappealing gift wrapping to test whether setting low expectations compared to high expectations can raise evaluations of unattractive gifts. Participants in Study 2 imagined that they received a birthday present and were shown a picture of either an appealingly or unappealingly wrapped gift box. Participants then imagined that they found the Microcosmos (unattractive) DVD inside the wrapping and evaluated the gift. The results showed that participants liked the gift *more* in the unappealing wrapped condition than the appealing wrapped condition. This result is consistent with our prediction that unappealing gift wrapping sets low expectations leaving recipients less likely to be disappointed with the unattractive gift.

Study 1a suggests that when people predict the impact of gift wrapping they do not incorporate the idea that gift wrapping establishes expectations against which the gift is compared. In Study 3, we examine whether erroneous prediction for gift wrapping documented in Study 1a can be corrected by providing a cue to think about expectations. Participants predicted the impact of gift wrapping in a 2 (cue vs no-cue) X 2 (attractive vs. unattractive gift) between subjects design. All the participants imagined that they received either an appealingly wrapped or unwrapped present from a friend. Participants in the cue condition answered one question asking when they would set a higher expectation for the gift between the two situations: receiving a wrapped vs. unwrapped gift. Participants in the no-cue condition were not asked such a question. Next, participants imagined that they found either the Lord of the Rings (attractive) or Microcosmos (unattractive) DVD when they opened the wrapping. The results demonstrated that for the attractive gift, participants in both the cue and no-cue conditions believed that appealing gift wrap would raise liking of the gift. For the unattractive DVD, however, providing a cue significantly changed participants' prediction. Participants in the cue condition were less likely to predict that gift wrapping will increase liking of the gift than those in the no-cue condition. This result suggests that people do not spontaneously consider expectation in prediction, but when their attention was drawn to expectations they make more accurate predictions.

In summary, we find that appealing gift wrapping can decrease evaluations of a gift by setting high expectations. However, people often fail to accurately predict this trend because they do not think about expectations spontaneously. Once reminded to consider expectations, however, people incorporate expectations into their predictions.

The Gifts We Keep On Giving: The Psychology of Regifting

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Consumers are often given gifts they don't like, gifts they won't use, or gifts they already have, and often think that someone else might enjoy the item more or find it more useful. Yet the idea of regifting – giving a gift that one has received to someone else – still seems to evoke both positive and negative reactions: some consider it rude, while others consider it resourceful. Clearly, people disagree on whether it is appropriate to regift. We explore the psychology of regifting: We put forth the counterintuitive hypothesis that regifting is actually not as offensive as many people might believe. In doing so, we attempt to shed light on a social phenomenon that despite being ubiquitous and common, still seems to elicit misgivings and doubt about its appropriateness.

We contend that in the context of gift giving, givers underestimate the extent to which recipients feel constrained by the norms surrounding the exchange process. We hypothesized that beliefs about the offensiveness of regifting would depend upon one's social exchange role, such that givers would report being less offended by regifting than recipients predict they will be; as a result, recipients' reluctance to regift is based on an erroneous belief about the presumed social consequences of their actions.

In Study 1, we randomly assigned people to the role of "giver" or "recipient." In the giver condition, we asked them to report how offended they would feel if they learned that a recipient had regifted their gift of a \$50 Amazon gift card to the recipients' sister; in the recipient condition, we asked them to estimate how offended they thought the original giver would be by their actions. As we predicted, recipients thought the initial givers would feel more offended than givers actually reported feeling. In Studies 2 and 3, we benchmarked the size of recipient's overestimation of givers' offense by comparing regifting – of concert tickets, and a wristwatch – to two other practices: "degifting" (returning a gift to the giver) and simply throwing the gift away. We show that recipients believe

that regifting is so offensive that givers will view regifting as being equally offensive as either degifting or throwing the gift away; in contrast, givers see regifting as preferable to either of these two practices.

Finally, Studies 4 and 5 explore the mechanism underlying the giver-recipient mismatch, and offer an intervention. In Study 4, we show that recipients of a gift feel that the act of receiving that gift decreases their entitlement to do what they wish with the gift – believing that the giver still holds some “ownership” of the gift; in contrast, givers are more likely to see recipients as the owners of the gift, and therefore as more entitled to dispose of the gift as they wish. As a result, recipients’ feelings of lack of entitlement drive their reluctance to regift. Finally, in Study 5, we examine a moderating factor – length of ownership. We expected that the longer recipients have retained a gift, the more ownership they feel of it – as assessed by their feelings of entitlement.

As we predicted, recipients were more likely to report a willingness to regift older than newer gifts, and this change in willingness was mediated by the change in perceived entitlement. Ultimately, although regifting presents an opportunity to pass on the symbolic value of a gift, recipients seem to be prone to more negative beliefs about regifting – especially relative to gift givers’ relatively favorable attitudes. While neither givers nor receivers report thinking that regifting is the very *best* approach to dealing with unwanted gifts, givers are more likely to see regifting as an appropriate course of action than recipients believe they will – explaining why consumers end up with closets filled with unused and unwanted gifts.

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The Counterintuitive Effects of Thank-You Gifts on Charitable Giving

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Donations are one of the largest sources of revenue for most nonprofits and charities and, as a result, a great deal of research in psychology, economics, and marketing has explored what factors encourage charitable giving. In this paper we focus on the effectiveness of offering small ‘thank-you’ gifts, such as a pen, coffee mug, or tote bag, as means of soliciting charitable donations. Given the ubiquity of these kinds of requests (e.g., National Public Radio fund-drives) and the real-world consequences of their effectiveness (or ineffectiveness), it is critically important to directly investigate this issue. Yet, despite decades of research on the relationship between external incentives and altruistic behavior, whether such offers do in fact increase charitable donations is unclear.

As an initial test of people’s lay beliefs, we asked adults to predict whether a thank-you gift (a pen bearing a PBS logo) would encourage people to donate more, less, or the same amount to public broadcasting compared to a donation request that did not offer a thank-you gift. The majority of participants (68%) predicted that thank-you gifts would *increase* donation amounts. Analogously, participants predicted that the group who was offered a thank-you gift would donate significantly more money than the group who was not.

In Study 2, a new group of adult participants were presented with the same materials as in Study 1. However, the presence or absence of a thank-you gift was manipulated between-subjects. In stark contrast to Study 1, participants who were simply asked for a donation (without any offer of a thank-you gift) were willing to donate significantly more than participants who were offered a thank-you gift. Moreover, the total amount of money donated was also higher in the no-gift condition than in the gift condition. Thus, despite people’s predictions, the offer of a thank-you gift actually decreased donations both in terms of the average amount per individual as well as the

total amount donated. Moreover, such counterintuitive patterns were not due to changes in beliefs about the importance of the charitable cause or to explicit beliefs about the influence of thank-you gifts.

Study 3 replicated this effect using actual donations, rather than hypothetical ones. In this experiment, participants were asked to donate a percentage of their winning from a lottery to the Save-the-Children foundation. Replicating the previous experiment, participants who were offered a thank-you gift, donated significantly less compared to participants who were simply asked for a donation.

One explanation this effect may be that participants inferred that the gift was undesirable because it was free (Kamins et al., 2009; Simonson et al., 1994). To test this possibility, Study 4 had three conditions: a desirable gift (a box of chocolate), an undesirable gift (an ugly tie), as well as a no-gift control. As expected, participants rated the chocolates as significantly more desirable than the tie. However, despite this difference in gift desirability, participants in the no-gift condition were willing to donate significantly more than participants in both the desirable-gift condition or the undesirable-gift condition. Donation amounts in the two gift conditions were not statistically different. Thus, the negative effect of thank-you gifts does not appear to be due to the undesirability of the gift offered.

An alternative explanation is that in assessing the value of the gift participants may have generated a relatively low value that anchored the subsequent amount participants were willing to donate. We tested this explanation by offering participants either an expensive gift (nice pen), an inexpensive gift (cheap pen), or a no-gift control. Despite the difference in gift value, however, participants in the no-gift condition were willing to donate significantly more than participants in either the expensive-gift or cheap-gift conditions. The two gift conditions were not statistically different. Thus, direct manipulation of the gift value within the same experiment did not alter donation amounts and in fact, we observed slightly higher donation amounts in exchange for a *less* (rather than more) expensive gift.

Study 6 examined the possibility that thank-you gifts reduce donation amounts because the external incentive undermines or “crowds out” participants’ altruistic motivations (e.g., Deci, 1975; Lepper & Greene, 1980). To test this explanation the same gift (a cloth shopping bag, bearing the organization’s logo) was framed as either something that could be used in a personally beneficial way (for shopping) or in a manner that benefited others (to increase awareness of the cause). As in previous studies, participants in the no-gift condition were willing to donate significantly more than participants in the benefit-to-self condition. However, consistent with the crowding out hypothesis, participants in the benefit-to-others condition also donated significantly more than participants in the benefit-to-self condition. Donation amounts in the no-gift condition and the benefit-to-others conditions were not statistically different. Thus, merely reframing the gift as consistent with altruistic goals attenuated the negative effect of thank-you gifts on donation amounts.

In sum, although people have the strong prediction that the offer of thank-you gifts should increase donations, such offers actually reduce charitable donations both in terms of the average amount donated per individual as well as the total amount donated. This effect is observed across a wide variety of charities and gifts types, regardless of whether the donations are hypothetical or real, the gift is desirable or undesirable, the charity is familiar or unfamiliar, or the gift is more or less valuable. Moreover, such patterns cannot solely be explained in terms of inferences about the charity’s quality (e.g., either their efficacy or current wealth), the undesirability of the gift itself, or simple anchoring effects. Instead, results were consistent with the hypothesis that the offer of external incentives undermines or “crowds out” altruistic motivations.

4.3 Individual Papers: Affect, Motivation, and Consumption

Room: Birch Room

Chair: James Mead, University of Kentucky

For Better, For Worse: Using Downward Counterfactual Thoughts to Motivate Future Behavior

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Counterfactual thinking – thoughts of ‘what could have been’ – plays a crucial role in the management and regulation of our goals and ongoing behavior (Epstude and Roesse 2008). Research on the functional role of counterfactual thinking demonstrates that upward counterfactual thinking (i.e. ‘could have been better’) allows an individual to prepare for future better outcomes, but at the expense of increased negative affect (Epstude and Roesse 2008; Markman et al. 1993; Markman, McMullen, and Elizaga 2008; Roesse 1994) whereas downward counterfactual thinking (i.e. ‘could have been worse’) allows an individual to savor a good outcome or to mood repair following a bad outcome, but reduces motivation to improve in the future (McMullen 1997; McMullen and Markman 2000; Medvec, Madey, and Gilovich 1995; Roesse and Hur 1997; White and Lehman 2005). Thus, an inherent assumption of the functional perspective is that a motivational tradeoff exists between protecting positive affect and preparing for the future (Boninger, Gleicher, and Strathman 1994; McCrea 2008; McMullen and Markman 2000; Myers and McCrea 2009).

We propose that under certain conditions, a motivational tradeoff may not be necessary. Specifically, we argue that upward counterfactual thoughts provide the necessary knowledge that opportunities for better outcomes exist (Epstude and Roesse 2008), and that contrastive downward counterfactual thoughts, by virtue of the positive affect they evoke, may provide the motivational energy to fuel the pursuit of future better opportunities (Carroll and Shepperd 2009). We propose that the tendency to use the positive affect evoked by downward counterfactual thoughts for motivational renewal when pursuing better outcomes will be moderated by regulatory focus, given differences in promotion and prevention-focused individuals’ reliance on affect-as-information (Avnet and Higgins 2006; Pham and Avnet 2004; Pham and Tamar 2009). Specifically, we hypothesize that whereas prevention-focused individuals will rely solely on the specific content within upward counterfactual thoughts to prepare for future better outcomes, promotion-focused individuals will rely on the positive affect evoked by downward counterfactual thoughts to fuel the pursuit of these better outcomes because they consider affect diagnostic. Our research provides novel insight into the motivational role of downward counterfactual thinking in goal pursuit.

In Study 1, we demonstrated the use of dual counterfactuals (i.e. both upward *and* downward counterfactuals) in a consumption context where individuals would be motivated by the promotion of future better outcomes (i.e. gambling). Real gamblers played 300 gambles on a simulated poker machine and either won or lost the game. As predicted, we found that frequent (vs. infrequent) gamblers not only generated upward counterfactual thoughts after winning and losing, but also downward counterfactual thoughts, presumably to aid their motivational efforts to continue gambling.

In Study 2, we conducted a laboratory study to examine whether the positive affect associated with downward counterfactual thoughts when generating downward counterfactuals contributed to the preparedness of promotion- (vs. prevention) focused individuals. Mediation analyses revealed that when participants expected to repeat the poker machine game again, positive affect mediated the relationship between the consideration of downward counterfactual thoughts and preparedness (i.e. eagerness to play again; expected improvement in outcome of next game) for promotion-focused, but not prevention-focused, individuals. In contrast, upward counterfactual thoughts provided informational value to both promotion and prevention-focused participants.

In Study 3 we manipulated exposure to counterfactual statements and examined the moderating effects of regulatory focus using a behavioral measure of subsequent task persistence. Participants first played a round of blackjack and received accurate feedback regarding their final credit score, but were also told that 50% of previous participants had scored higher than they did. To manipulate the duality of counterfactual thoughts, participants then read either six contrastive upward counterfactual statements (upward condition) or three contrastive upward and three contrastive downward counterfactual statements (dual counterfactual condition) presented for 30 seconds each. Participants subsequently learned that they would have the opportunity to play another round of blackjack with no limit as to the number of games they could play. In the promotion (prevention) condition, participants' objective was to *gain (not lose)* credits for entry into a prize draw. As hypothesized, promotion-focused individuals in the dual counterfactual condition persisted longer in the second round of the game relative to the upward counterfactual condition. For prevention-focused participants, there was no difference across conditions. Furthermore, prevention-focused individuals' greater reliance on the content of their upward counterfactual thoughts was reflected in decreased change in their strategy of play after considering fewer upward counterfactuals (i.e. in the dual counterfactual condition).

Finally, in Study 4, we demonstrated that the motivational enhancement provided by downward counterfactual thoughts would only occur when positive affect could be attributed to downward counterfactuals and was relevant to the goal of pursuing better outcomes. As in study 3, participants played a round of blackjack and received feedback. Next, all participants' read three upward and three downward counterfactual statements. The order of the statements was manipulated such that half the time the three upward counterfactuals statements were presented before the three downward counterfactual statements, and vice versa. While reading the counterfactual statements participants listened to a segment of background music. Participants in the misattribution condition were subsequently told that the music may have created positive feelings. Participants in the no misattribution condition were not given such information. Participants then played the second round of blackjack with an induced promotion focus. As hypothesized, participants in the no misattribution condition persisted longer relative to those participants who misattributed their positive affect to the music.

Overall, we demonstrated that under certain conditions, downward counterfactuals may support the preparative function of upward counterfactual thoughts via the positive affect they evoke. Thus, when consumers need to persist in the face of adversity such as looking for a new home in a seller's market, shopping in a crowded mall because there are still gifts to purchase on the Christmas list, or negotiating with difficult tradespeople during a home renovation, considering how an outcome could have been worse, might just lead to a better outcome.

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Guilt or Pride – Which is the More Motivational Self-Conscious Emotion?

Monica LaBarge, Queens University*

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Self-conscious emotions, including both guilt and pride, have been identified as being particularly important in the realm of regulating interpersonal and goal-related behaviours (Leary 2007). MacInnis and Patrick identified that both emotions are important for affective forecasting in the context of impulse control (MacInnis & Patrick 2006, Patrick et al. 2009), while Bagozzi and colleagues (Bagozzi et al. 1998, Bagozzi et al. 2003, Perugini & Bagozzi 2001) found that anticipatory emotions, including guilt and pride, are linked to

success and failure in self-regulatory behaviours such as dieting. Overall however, relatively little empirical research has examined how *anticipating* versus *actually* experiencing emotions may differentially affect attitudes and behaviour (Patrick et al. 2009). In two studies in the context of promoting healthy behaviours (Study 1 – exercise; Study 2 – good eating habits), we more closely explore each emotion and its sub-types in order to identify which may be most effective at discouraging negative behaviours and encouraging positive behaviours, and we identify a possible moderating individual difference factor.

Guilt can be defined as a combination of negative emotions such as regret, remorse and self-blame that are experienced upon either contemplating or committing a transgression that violates a socially- or internally-defined standard, rule or goal (Lewis 1993, Ortony et al. 1988, Lascu 1991). Huhmann and Brotherton (1997) have explicitly identified *anticipatory* guilt (when an individual contemplates the *potential future* violation of some internalized standard of acceptable behaviour), in contrast to *reactive guilt* (which occurs in response to a *past, overt* act of having violated those standards) (Coulter et al. 1999, Cotte et al. 2005). Like guilt, pride is a self-conscious emotion evoked by self-reflection (Tangney and Fischer 1999) and based on internal attributions for the cause (Tracy and Robins 2004). However, whereas guilt is negative emotion associated with goal violations, pride is a positive emotion associated with goal achievement. The limited marketing research on pride typically treats it as a past-oriented emotion. However, as with guilt, and consistent with MacInnis et al. (2006; Patrick et al. 2009), we argue that pride has power both as an anticipated and an experienced emotion: individuals may feel proud of having achieved some desired goal (reactive pride) OR at the thought of potentially achieving some future goal (anticipatory pride).

Our first study focuses on the better researched emotion: guilt. Existing research suggests that there should be a difference in the emotions evoked by the two types of guilt appeals (Giner-Sorolla 2001). Anticipatory guilt can be construed as the more positive type of guilt, since it focuses on the future and the potential avoidance of a negative emotion through some individual effort or exercise of self-control. Reactive guilt is the more negative type, as it focuses on past transgressions and endeavours to actually stimulate feelings of guilt in order to spur action towards avoiding that emotion again. These differences in the nature of the emotion elicited depending on appeal type have implications for the persuasiveness of and attitudes towards the ad and its source.

Study 1 presented participants (n=146) with an ad for a fictional fitness facility, using either an anticipatory or reactive guilt appeal to advocate getting active by joining the gym. Individuals who saw an anticipatory guilt appeal ad had more positive attitudes toward the ad and towards the organization than did those who saw the reactive guilt ad. However, those who saw the reactive guilt ad also experienced more self-directed negative emotions, more other-directed negative emotions, fewer positive emotions, and perceived greater manipulative intent on the part of the than did those who saw the anticipatory guilt appeal. This is consistent with research demonstrating that emotional responses affects attitude towards the ad and attitude towards the brand (MacKenzie & Lutz 1989); that the type of guilt appeal used can affect the experienced level and intensity of other emotions (Cotte et al. 2005); and that the use of emotional appeals can affect perceived motives and credibility of the source (Coulter & Pinto 1995, Friestad & Wright 1994).

Study 2 replicated the previous study using anticipatory and reactive pride appeals, the differences in which have heretofore not been examined. We also integrate research on regulatory focus to suggest that that it will influence how a consumer responds to different types of emotional ad appeals (Higgins 1997). In Study 2, participants (n=52) were presented with either an anticipatory or a reactive pride appeal advocating shopping at a fictional grocery store as a way to engage in healthy eating. In contrast to Study 1, where anticipatory guilt was perceived more positively than reactive guilt, our results suggest that *reactive pride* appeals lead to significantly *more positive attitudes* towards the ad and the organization than anticipatory pride appeals. Consistent with these results, we found that those who saw the reactive pride appeal experienced fewer other-directed negative emotions and greater perceptions of

manipulative intent than those who saw the reactive pride appeal. We suggest that these results occur because anticipatory pride is viewed as more manipulative than reactive pride. Exactly why that is the case, and how it relates to the opposite effect in the case of guilt appeals, is a question for future (and ongoing) research.

Planned contrasts examining the impact of regulatory focus identified, as expected, that individuals high in promotion-focus who saw the anticipatory pride ad appeal had significantly more positive attitudes towards both the ad and the organization than low promotion-focused individuals in the same condition. High promotion-focused participants also experienced fewer self-directed negative emotions, fewer other-directed negative emotions, and lower perceptions of manipulative intent. They also saw the ad as being significantly more persuasive. This is consistent with the positive aspirational focus of pride and the desire of promotion-focused individuals to achieve positive outcomes; because anticipatory pride appeals relate to the pursuit of a positive emotion rather than the avoidance of negative emotion, in this study we focused only on the consumer's level of promotion focus. Future research is needed to examine how a prevention focus may influence individuals' reactions when the goal of avoiding a negative emotion predominates.

Future research underway includes exploring the mechanism at work in producing more negative responses to the *reactive guilt* condition and the *anticipatory pride* condition, including a study that allows for a simultaneous comparison of all conditions. Further work is also necessary to more closely examine the influence of regulatory focus in either driving or affecting the results observed in Study 2, including analysis related to prevention-focused as well as promotion-focused individuals.

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Impulse and Constraint: The Role of Anxiety and Anxiety Relief in Impulsive Buying

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Studies in consumer research make opposing predictions on the effects of anxiety on buying decisions. Previous work in decision making has shown that anxiety increases risk aversion (Lerner and Keltner, 2000, 2001; Raghunathan and Pham, 1999). This suggests that anxiety would lead to more careful or prudent buying. In contrast, coping with negative emotion may lead to impulsive buying either through regulatory failure (Baumeister, 2002; Vohs and Faber, 2007) or through efforts at mood repair (Cryder, Lerner and Gross, 2008). This is supported by correlational studies indicating that impulsive buyers are more likely to purchase as a reaction to negative moods such as anxiety as compared to non-impulsive buyers (Rook & Gardner, 1995).

In this paper, we reconcile these positions by proposing that the effect of anxiety on buying depends upon the timing of the buying opportunity in relation to the anxiety episode. As people experience anticipatory anxiety about a future event, anxiety will *reduce* impulsive buying. Not only is this consistent with previous work (Raghunathan and Pham, 1999), it can be derived from theories that propose anxiety as the emotional constraint on impulsive behavior (Carver, 2005). However, the cessation or relief of anxiety will *increase* impulsive buying, which follows from both the regulatory failure and 'mood repair' accounts. In the first study we test the first part of this hypothesis using a projective method for impulsive buying. In the second study, we test both hypotheses by measuring actual buying responses.

Ragunathan and Pham (1999) showed that inducing anxiety leads to a greater preference for lower risk, lower payoff option. Following from this, we show in the first study that an anxious state also decreases impulsive buying decisions, relative to neutral condition.

In this type of emotion induction (scenario method) questioning the participants about their felt emotion disrupts the effect. Therefore, we confirmed that the appropriate emotion was induced in a pretest with 30 undergraduate students. After reading emotional scenarios, participants rated their felt emotion on series of emotion adjectives. The results indicated a significant difference in felt anxiety (*adjective anxious, nervous and tense*) in the anxious ($m=4.2$) and neutral groups ($m=3.1$), $t(1,29) = 2.18$, $p < 0.05$.

In the main experiment, the emotion induction was immediately followed by the impulsive buying projective buying scenario developed by Rook and Fisher (1995). Participants read about a college student (Mary) with limited budget who sees a sweater that she likes, and were asked to indicate which action she would take: Either to buy (impulsive decision) or not buy (non-impulsive decision). Following the choice, we requested participants to indicate how likely Mary would buy the sweater on 1 (Definitely will not buy) to 7 (Definitely will buy) scale. Results showed that the proportion of participants who chose the impulsive purchase option in the anxiety condition was 12%, compared to the neutral condition where it was 30%. We calculated the z-statistic to compare proportions and found that impulsive buying in the anxiety condition was significantly lower than in the neutral condition ($z = -1.98$, $p < .05$). Furthermore, the anxiety condition resulted in lower levels of likelihood to buy ($M_{\text{anxiety}} = 3.44$) than neutral condition ($M_{\text{neutral}} = 5.20$, $p < 0.001$). Together, these results support our prediction that state anxiety reduces impulsive buying.

This study had two main goals. First it was important to replicate the negative effect of anxiety in a situation that involved actual buying. In this study, subjects were given money in the form of gift cards, which could be exchanged for products (candies, stationery; Vohs and Faber, 2007). Second, we chose a different method of anxiety induction (anticipation of public speaking, Childs, Vicini and Dewitt, 2005; Witt and Behnke, 2006). The advantage of this method is that anxiety relief could also be easily manipulated.

In a 2X2 design, we manipulated anxiety and whether or not anxiety was relieved. For the anxiety condition, subjects were given product information and told that they had 5 minutes to prepare to make or evaluate a sales presentation (Presentation and Evaluation groups respectively). At the end of the preparation time measures of current affect (PANAS, Watson and Tellegen, 1985) were taken. At this point another experimenter entered the room to explain that the sales presentation was delayed, and that the subjects were to finish another task in the meantime. The cover story for the buying task was that the subjects were helping to choose items for vending machines to be installed at the student union, and could, if they wish, buy the items under consideration. For those subjects in the Anxiety Relief condition, the experimenter unexpectedly announced that the sales evaluation/presentation study would be cancelled at the end of the preparation time. All other details were the same as for the Anxiety condition.

Exploratory factor analyses showed that PANAS items *scared, nervous* and *anxious* comprised a reliable dimension of felt anxiety. Felt anxiety was significantly higher in the Presentation group ($m=2.45$) than in the remaining three groups which did not differ (means=1.42-1.68). This shows that the anxiety and anxiety relief manipulations worked as intended. In terms of the buying task, our results show an interaction between levels of anxiety and anxiety relief for both the amount spent and number of items bought ($F(1,169) > 4.18$, $ps < 0.05$). As predicted, anxiety leads to decreased impulsive buying, both in terms of amount spent (Evaluation group mean=\$0.78 and Presentation group mean= \$0.41) and number of items bought (Evaluation =1.12 items and Presentation =0.64 items). Relief of anxiety led to increased impulsive buying, again both in terms of amount spent (Relief-Evaluation = \$0.83 and Relief-Presentation = \$1.17) and number of items bought (Relief-Evaluation = 1.22 items and Relief-Presentation =1.71 items). Further tests confirmed that felt anxiety was significantly and negatively correlated with the amount spent and the number of items bought.

To follow up, we are currently examining a variety of mediating processes by which anxiety and anxiety relief might influence impulsive choices.

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Feeling Good By Doing Good: Self-Enhancing Through Ethical Consumption

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Why do people consume ethical products? Extant research implicates a range of essentially prosocial motivations such as altruism, reciprocity and social signaling for ethical purchases (e.g., Kozinets and Handelman 1998; De Groot and Steg 2009; Smith 1990). Other research suggests that consumers may make ethical product choices in order to be seen by others as virtuous (Baron and Spranca 1997; Devinney et al. 2006), or even because of social pressure to behave in an ethical manner (e.g., Morrell 2006; McGoldrick and Freestone 2008). Yet, proself and self-enhancement motives in ethical consumption remain untested. In this paper, we draw jointly on the extant theoretical perspectives of self-affirmation (Steele 1988; see Sherman and Cohen 2006 for recent review) and self-signaling (Bodner and Prelec 2003; Mijovic-Prelec and Prelec 2009) to propose that ethical consumption can also be guided by the essentially pro-self motive of wanting to feel better about oneself (i.e., self-enhancement), particularly when one's sense of self is threatened. In other words, when faced with the need to feel good, virtuous, successful, and in control of their lives (i.e., self-integrity; Steele 1988), choosing an ethical product allows people to signal to themselves their inherent ethicality or goodness, thus enhancing, at least temporarily, their sense of self.

Four experiments support our basic assertion. Together, these demonstrate that a threat to self-integrity increases not only consumers' choice of the ethical option over the "regular" one in two-option choice sets, but also their willingness to pay for such an option. As well, we provide evidence for the self-enhancement process hypothesized to underlie this effect by demonstrating that not only does the choice of the ethical option restore state self-esteem to pre-threat levels but also that boosting self-esteem through independent means reduces the likelihood of ethical choice. Finally, we rule out several competing explanations for the observed pattern of choices, such as the taxing of cognitive resources and the heuristic value of product labels.

North American undergraduates participated in all four studies in exchange for partial course credit. The same three basic steps characterized all our studies. First, self-threat was operationalized, based on prior research (Brinol and Petty 2003; Gao et al. 2009), through a writing task: participants were asked to write down, using their non-dominant hand, their favorite movie followed by a 100-word essay (+/- 10%) developing three arguments supporting their choice. Participants were also told the task has been used to accurately predict academic ability. In some studies, a control group completed the same task with their dominant hand and was not apprised of its link to academic ability. Second, upon completing the writing task, participants chose from an efficient set of two chocolate bars. One was an ethical option displaying a Fair Trade (FT) logo but was, importantly, 20% smaller (100 grams) than the other, "regular" option (125 grams). The order of presentation of these options was counterbalanced. Third, all participants provided their willingness to pay (WTP) for their chosen option on a nine-point scale with anchors of \$1 and \$5 (scale intervals were \$.50).

Our hypothesis was that participants with a threatened self would be more likely to select an ethical option (and pay more for it) in an effort to self-signal virtue (self-enhancement motive).

In Study 1A, we test our basic premise that ethical consumption can enhance self-esteem. At the same time, we rule out two alternative explanations, cognitive load and ego depletion, associated with our self-threat manipulation (i.e., the writing task). 100 participants were randomly assigned to one of four conditions (self-threat, cognitive load, ego-depletion and control). Participants then followed the procedure outlined above. The results showed that significant differences in FT choice between the self-threat group and the other three experimental groups. Self-threat participants were more likely to choose the FT option (80%) than those in the other three conditions (average choice share: 45.3%; $\beta = 1.79$, $p < .01$). Likelihood of choosing the FT option did not differ across these other three conditions. Study 1B rules out two other alternative explanations associated with our stimuli by examining whether the choice pattern obtained in Study 1A can be explained by the mere presence of a logo or the smaller size of the ethical option.

Study 2 focuses on the underlying process by examining the extent to which choice of the ethical option boosts state self-esteem. Participants ($n = 54$) were randomly assigned to one of two Self-Esteem conditions: Ex Ante or Ex Post. After the self-threat manipulation, participants in the Ex Ante group completed a 20 item state self-esteem scale (Heatherton and Polivy 1991), Next, participants chose between the FT and regular chocolate bars and then indicated their WTP for their chosen option. In the Ex Post condition, participants completed the state self-esteem scale after their choice and WTP statements. ANOVA revealed a significant choice x self-esteem interaction ($F(1,50) = 3.34$, $p = .07$). Among those who chose the FT option, state self-esteem was significantly higher Ex Post ($M = 3.90$) than Ex Ante ($M = 3.44$; $F(1,50) = 11.89$, $p = .001$). However, among those who chose the regular option, self-esteem was no higher Ex Post ($M = 3.84$) than it was Ex Ante ($M = 3.89$; $F(1,50) = 0.04$, NS).

In the final study, we provide convergent evidence for the self-enhancement process by demonstrating that when the self-threat participants are self-affirmed through independent means prior to their choices, their subsequent likelihood of choosing the FT option is no different from that of those whose self-esteem was not threatened in the first place.

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4.4 Individual Papers: Putting the Choice in Context

Room: Oak Room

Chair: Juan Wang, Ivey School of Business, UWO, Canada

The Effect of Attribute Diagnosticity and Brand Name on the Awareness of the Unknown or Missing Features of a Product

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Prior knowledge participates in judgment and decision making such that an accessible and applicable subset determines the product of judgment and decisions (Wyer, 2008). Theoretically, how much is known and how much is not known about a target product should determine the extremity and confidence of a judgment. However, prior research shows that the awareness of the unknown or missing

features of a focal product is surprisingly low (Kardes & Sanbonmatsu, 2003). With little consideration of the uncertainty bearing on the unknown or missing component, consumers form extreme and confidently-held judgments even when limited information is available. Prior research investigating consumers' awareness of unknown or missing attributes only uses diagnostic attributes to describe a target product (Sanbonmatsu et al., 1991, 1992, 1997, 2003). Diagnostic attributes are highly probable to differentiate the quality of a product in a given product category. However, it is possible that when available information is not diagnostic, consumers spontaneously recognize that additional information is required. This possibility is confirmed by prior research in a noncommercial context. Van Wallendael and Guignard (1992) showed that the diagnosticity of questions asked before a decision is made determines the total number of questions. The study also suggests that available information of lower (vs. higher) diagnosticity increases the awareness of information insufficiency and prompts information seeking.

We predict that when known information about a target product do not adequately differentiate the quality of the product in a given product category, consumers will spontaneously notice the insufficiency of available information, lowering product evaluation. In this case, increasing the number of attributes, regardless of their diagnosticity, should increase the perceived importance of presented information and enhance product evaluation. By contrast, when diagnostic attributes are provided, increasing the number of attributes will have no impact on product evaluation. Experiment 1 was designed to test this possibility.

180 students (58% female) were first asked to read an ad of a digital camera, and to assign the weights to each attribute mentioned as well as weights to all other attributes unmentioned (Silvera et al., 2005). Participants were then asked to provide global evaluation, confidence of the judgment, and their perception of missing information.

A 2 (Number of attributes: 3 vs. 6) X 2 (Diagnosticity: high vs. low) MANOVA was performed on all dependent variables. The result revealed the expected two-way interaction (Wilk's Lambda=0.83; $F(3,174) = 11.6, p < .001$). Results showed that weights assigned to all other attributes increased as the number of attributes of low diagnosticity increased. Further, more positive global evaluation and lower perceived missing information was found when six (vs. three) attributes were provided. However, the aforementioned differences attributed to low diagnosticity were not found when the ad contained diagnostic attributes ($F_s < 1$).

In Experiment 2, we sought to show that brand name influences consumer judgment in a similar way that diagnostic product attributes do. Brand name bears on its uniqueness in that a well-known brand integrates into one's knowledge structure and serves as a diagnostic attribute when task importance is low (Maheswaran, Mackie, & Chaiken, 1992). However, prior research converges on the view that only novices (vs. experts) overly rely on overall brand impression (Dillon et al., 2001) and are more likely to ignore missing information (Sanbonmatsu et al., 1992). We predict that a more familiar (vs. less familiar) brand will lower (vs. heighten) novices' awareness of missing features of a target product such that increasing the number of attributes will have no impact on product evaluation.

164 participants read an ad of a branded HDTV (LG or Zenith) followed by a set of attributes. Next, participants provided information on global evaluation, confidence in the evaluation, and perceived information sufficiency. A 2 (Number of attributes: 4 vs. 6) X 2 (Brand familiarity: LG vs. Zenith) X 2 (Expertise: experts vs. novices) MANOVA was performed on the dependent variables. Results showed that novices' evaluation of the Zenith HDTV with 6 attributes was superior to that with 4 attributes. However, the evaluation of the LG HDTV among novices did not differ with the increased number of attributes. By contrast, with more attributes, experts' evaluation of the HDTV improved and this pattern remained the same across two brands.

Experiment 3 was designed to tease apart the competing impact of brand and other ingredients of a product on consumers' awareness of omissions. Research on cue interaction suggests that cues compete against each other in predicting diagnosticity. As the diagnosticity of one cue increases, the diagnosticity of other cues decreases (Osselaer & Janiszewski, 2001). Similar evidence comes from Connolly and Srivastava (1995). The authors pointed out that a cue-type attribute conveys the representation of a product at varying levels, far richer than that provided by a component-type attribute being only a constituent of a product. We contend that a well-known brand is more likely to be a cue than a component due to richer associations it creates in memory (Keller, 1993). The impact of a diagnostic cue should be above and beyond that of a diagnostic component when these two things interact.

Recent research provides further support for this possibility and highlights a condition that qualifies its occurrence. Dillon et al. (2001) decomposed brand equity into the part from brand and that from product attributes for two different populations. The authors demonstrated that the brand equity for expert consumers is derived from attributes, features, and benefits whereas for novice consumers, it comes from general brand impression.

We predict that when brand name is mixed with other attributes, the impact of a more familiar brand name will override that from other diagnostic attributes. That is, a familiar brand will induce lower awareness of missing information irrespective of the diagnosticity of the remaining attributes. However, only novices will be subject to this effect. For experts, the effect of diagnosticity found in previous two experiments will nonetheless persist for a familiar brand name.

Procedures and measures in Experiment 3 remained the same as Experiment 2. However, this time, a Netbook was used as the target product and 348 undergraduates (57% male) participated. A MANOVA 2 (diagnosticity: high vs. low) X 2 (brand familiarity: Sony vs. Asus) X 2 (Expertise: experts vs. novices) was performed on global evaluation, confidence, and perceived information sufficiency. As expected, the results revealed a three-way interaction (Wilk's Lambda=0.96; $F(3,338)=4.3$, $p<.01$). The evaluation of Sony netbook among novices did not discriminate attribute diagnosticity ($F<1$). However, the Asus Netbook received higher evaluation when product information was diagnostic ($M=5.6$ vs. $M=4.7$; $t(107)=3.1$, $p<0.01$). By contrast, experts' evaluation was only influenced by the diagnosticity of attributes whichever the brand was. A consistent pattern was found on the confidence and perception of missing information.

Three experiments show that consumers are spontaneously aware of missing features when product description is not diagnostic. Further, brand is used as a diagnostic attribute for novice consumers such that they are not sensitive to missing features of a product carrying a well-known brand. Last, because brand and other product attributes differ in predicting diagnosticity for novices and experts, their impact on sensitivity to missing features is different as well.

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Shaping "the single biggest reason for brand choice": Testing an ability of ad messages to influence brand-context associations

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Accumulating evidence suggests that consumer behaviors are often strongly influenced by subtle environmental cues rather than being based on conscious information processing. One of the ways in which the context affects consumer choices is through the activation of

associations between features of the physical consumption environment and the brand. By pairing mature brands with novel situations, the present study explored the possibility to directly manipulate brand-context links by means of advertising. Results suggest that the associative treatments can significantly promote development of the novel brand-context association, even if the two are initially perceived as unusual and incompatible.

When consumers buy popcorn in a movie-theater, do they do so because they really want a snack, or just because it feels like a natural thing to do? When Starbucks patrons stop in a coffee shop on their way to work, is it because they are brand loyal, or because this stop simply became a part of their morning routine? Although in some cases these behaviors will, indeed, reflect consumers' attitudes and needs, most of them are likely to be driven by the same force that makes us mindlessly reach for a candy in an empty candy bowl – a habit.

Habits are known to be the most common class of behaviors across a variety of domains. By some estimates, as many as 45% of all daily actions tend to be repeated in the same context almost every day (Wood, Quinn, & Kashy, 2002). Habits appear to be so ubiquitous and powerful, that some advertisers even call them “the single biggest reason for brand choice” (Wood, 2002, p.18).

Consumer habits present a great challenge – and a great opportunity – for marketing communicators. According to the most recent conceptualization, habits are defined as a form of automatic behavior strongly influenced by the cues of environment. When a purchase or consumption of a product occur in a stable context, consumers learn to associate this product with context features (e.g., time, location, social setting). In extreme cases, product-context associations get rehearsed to the degree that the contextual cues obtain the power to trigger consumer behaviors directly, bypassing any relevant beliefs and in the absence of conscious decision-making (Neal & Wood, 2007).

Although communication interventions will likely be ineffective in shaping fully-formed habitual behaviors when used alone, the logic of associative learning dictates that advertisements can be successful at the basic level of habit formation – establishing, reinforcing or interrupting contextual associations for brands and products. Despite a growing interest in consumer habits, no study has directly tested the ability of ad messages to influence contextual associations for mature brands in experimental conditions. The present work aims to begin to fill this gap.

To explore whether advertisements can weaken traditional associations and reinforce the new ones, two scenarios were used: pairing a highly habitual brand with a new contextual cue (*Coca-Cola/breakfast*), and introducing a new product to a highly ritualized situation (*hot-dog/movie-theater*). Both pairs were pre-tested to ensure they were perceived as truly unusual.

Associations were manipulated by exposing participants to the “slice-of-life” vignette ads portraying each of the target products in a respective new consumption environment. In order to control for a priming effect, a brand image ad condition was added as a second control. All participants (n= 146) first completed two reaction-time tasks presented as decision-making exercises. The goal of the first task was to indicate as quickly as possible whether the brand is appropriate in a given situation. Speed with which the participant categorized the brand and a contextual cue as compatible or incompatible served as an indicator of their association strength. The second task was a traditional IAT procedure used to measure students' implicit attitudes toward Coke, coffee, pop-corn and hot-dogs. Following the reaction-time exercises, participants watched a series of print ads (including target ads) shown on a computer screen. After the ad watching session, students performed both reaction time tasks again. They also filled out measures of their explicit brand attitudes and habits with regard to the target products.

The results suggested that the associative treatment by means of advertising can significantly reinforce novel brand-context links. Although the majority of students exposed to the vignette ads categorized the unusual pairings as incompatible both before and after the ad exposure, they did so with significantly less confidence (i.e., slower) in the post-manipulation measure. The more striking aspect of the findings is that in some cases the effect of vignette ads was strong enough to influence the actual way students categorized the pairs of stimuli. Eight percent of students exposed to the Coke ad (McNemar's $\chi^2 = 8.98$, $p < .10$) and 18% of students exposed to the hot-dog ad (McNemar's $\chi^2 = 25.17$, $p < .001$) changed their response from initially "incompatible" to "compatible" with the target contextual cue after seeing the associative ads. This shift in overt categorization was observed only in the associative treatment (i.e., vignette ad) condition. Importantly, none of these effects were observed in the brand image ad conditions, thus ruling out the mere priming explanation.

The strength of dominant habitual associations was not affected by the manipulation. Regardless of the type of ads they were exposed to, and regardless of their pre-existing preference history with the brand/product, participants categorized all of the traditional pairs (i.e., *Coke/lunch*, *coffee/morning*, *pop-corn/movie*) as compatible before and after exposure to ads. The speed of categorization (i.e., association strength) was stable as well. This finding is consistent with the theories of parallel learning, suggesting that reinforcement of novel associations do not require, and do not always cause, a change in the prior dominant associations.

No relationship between experimental treatment and product evaluations emerged, indicating that manipulating salience of a product in a given context can be done independently of changing overall product evaluations. The latter is a difficult task for mature brands, but, as the results suggest, not critical for shaping brand preferences.

Altogether, results provide converging evidence for the possibility to influence contextual brand associations by means of advertising. In addition to its theoretical contribution to the literature on non-evaluative associative learning (a rather overlooked area of investigation in consumer research), the findings may also prove highly relevant to brand promotion specialists. For example, an increasingly common practice utilized to increase market share involves tapping into uncommon contexts and unconventional brand uses (consider, for example, 3M efforts to associate its Post-It brand with home use, or Coca-Cola campaign positioning Coke as "another way to get your morning caffeine"). The findings demonstrate that associative learning resulting from advertising exposure can significantly reinforce the brand-context associations even if the product and the consumption occasion are initially perceived as mismatched.

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Choice Context Effects from Inferred Similarity to Product Recommenders

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When and how are consumers influenced by others' product recommendations? One critical factor is how *similar* people feel to the other person, e.g., in preferences, personality, tastes, or beliefs (Simons et al., 1970). While choice-relevant similarities are reasonable to consider in deciding whether to take advice, we propose that people over-generalize similarity in domains unrelated to focal product decisions. For instance, if I see you've positively reviewed an obscure film I happen to love, I may be more likely to consider and

heed your advice regarding cordless phones. Such distal *similarity signals* may exert important influence on choices and recommendation efficacy.

The “signal-value” of similarity cues—the degree of inferred similarity and strength of its influence—should depend on various factors: whether signaled similarity is on a dimension important to one’s self-identity, intensity of preferences in the similarity domain, idiosyncrasy of a shared preference/characteristic, etc. For example, for a politically engaged individual, a review of a right-wing conservative book might have *high* signal-value regarding the reviewer, whereas reviews of kitchen-utensils or umbrellas would have relatively *low* signal value.

We examined distal similarity effects on inducing asymmetric dominance (Huber et al., 1982). We show that divergent choice contexts established by different similarity signal permutations—high-value/similar versus high-value/dissimilar versus low-value—can reverse and shift the asymmetric dominance effect.

Study 1: Positive and Negative Similarity Signals. Participants chose a preferred camera in a hypothetical purchasing scenario. Each presented option was recommended by another consumer, for whom sample product-reviews in unrelated domains were provided. The Control condition choice was between two cameras {A,B} reciprocally dominant in mega-pixels and price, respectively. In two other conditions participants had three options, {A,B,C}. C had the *same* objective specifications as B, and pretested as equally attractive. A and B were recommended by consumers whose other reviews were of a calculator or kitchen-utensil (*low* signal-value). C was recommended by a consumer who previously reviewed a right-wing/conservative book (*high* signal-value), either positively (Pro-Conservative condition) or negatively (Anti-Conservative condition). For political liberals (predominant in our sample), the Anti-Conservative review was hypothesized to send a *positive* similarity signal, versus a *negative* (or dissimilarity) signal from the Pro-Conservative review.

This similarity signal difference influenced relative preferences between objectively matched B and C. In the Pro-Conservative condition, B’s choice-share increased among {A,B,C} compared to {A,B} Control. A’s choice-share declined, whereas C was chosen by only one participant. Thus, camera-B asymmetrically dominated camera-C.

Conversely, the Anti-Conservative condition showed a reversal: B’s choice-share *decreased* and was below C’s. A’s choice-share also fell. This B/C preference reversal, combined with A’s choice-decline, is consistent with C asymmetrically dominating B. Results were also moderated by political liberalism, with inter-condition differences most acute for highly liberal individuals.

Study 2: Dissociating Similarity and Liking. An alternative account for Study 1 is that, rather than signaling similarity/dissimilarity, the conservative-book reviews simply influenced *liking* of the reviewer, which in turn affected their recommendation efficacy. Study 2 disentangled these factors via a product-review that induced liking but simultaneously signaled *dissimilarity*. As part of a review of a book on charitable giving, the reviewer described an extremely charitable lifestyle (e.g., vacations spent building houses in third-world countries, dedicating nearly half of income to charities). While such a person may be liked and admired, their extreme nature (over 90% of participants reported donating 10% or less of yearly income) was hypothesized to send a dissimilarity signal.

The procedure and stimuli largely matched Study 1, though with only one {A,B,C} condition, in which camera-C was recommended by the extreme-charitable reviewer. Participants indeed rated this consumer as both more liked but more dissimilar to themselves than those who recommended A and B (for whom provided product-reviews were of a calculator and kitchen-utensil as in Study 1).

Opposite to what a liking-based account would predict, results matched a *dissimilarity* signal for C, causing B to asymmetrically dominate it. Compared to {A,B} Control, B's choice-share increased, A's declined and C was chosen least frequently in the {A,B,C} condition. Moreover, individuals choosing B from {A,B,C} reported lower perceived similarity to the extreme-charitable consumer than did those choosing A or C.

Study 3: Preference-Match Idiosyncrasy and Inferred Similarity. We show that similarity inferred from a shared preference with another consumer can be moderated by the *idiosyncrasy* of that match—that is, how unique/rare the two of you appear in holding that preference. Participants first encountered a product (abstract-art poster) and evaluated it on a 1-to-5-star scale. They then proceeded to our camera-choice/recommendation scenario from Studies 1-2 (B and C with identical specifications, reciprocally dominant A). In control conditions participants encountered {A,B}, {A,C}, and {A,B,C} option-sets with no other information provided about the recommenders.

In two other {A,B,C} conditions, each camera's recommender was accompanied by their rating of the *same* poster participants evaluated. C's recommender rated the poster identically to the participant, whereas A's and B's differed from the participant's. Preceding this, following their own poster-evaluation, participants were provided with *distribution information* regarding others' ratings of the poster, listing the number of 1-,2-,...,5-star ratings (as provided, e.g., on Amazon.com).

In the Common-Match condition, the participant's rating (and thus also C's) was shown as a relatively common response (97/305 total ratings, with approximately flat distribution across all rating-levels). In the Idiosyncratic-Match condition, this rating was displayed as a *minority/niche* response (only 12/305 ratings), with the ratings by A's and B's recommenders comparably common.

Preference-match with C's recommender induced similarity-consistent asymmetric dominance of B only in the Idiosyncratic-Match condition, where C's recommender seemed to share a rare and distinctive artistic preference with the participant (sending a signal of stronger or deeper similarity). In the Common-Match condition, where relatively many seemed to share this same preference, the poster-rating match did not induce any choice-dominance effects.

Conclusions. Results show distal similarity and dissimilarity signals can have influential effects on choice, such as inducing and reversing asymmetric dominance. These findings illustrate a novel way of influencing choices through contextual cues, and reveal an important moderator of the efficacy of product recommendations and potentially other forms of interpersonal influence.

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Examining the Single Category Belief Problem in Hybrid Product Choice: The Impact of Choice Composition and Category Cue

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The rate of innovation in today's market has spurred a trend in new product design towards the development of hybrid or boundary-spanning products (consumer goods with multi-product functionality). Smartphones are a good example given they serve as anything from a cell phone to a handheld computer. Researchers have questioned how consumers develop preferences for products that do not fit nicely into a single existing product category (Gregan-Paxton, Hoeffler, & Zhao 2005; Moreau, Markman, & Lehmann, 2001). A common observation is that when an object consists of properties from two or more categories, people tend to classify it under a single

preexisting category, and use that category exclusively to generate inferences (Murphy & Ross, 2010; Rajagopal & Burnkrant, 2009). This “single category belief problem” poses considerable difficulty for marketers given that key features may go ignored (Rajagopal & Burnkrant, 2009, p. 232). Despite substantive arguments, research exploring this phenomenon has been restricted to self-report inferences and classification judgments; it has not explored whether single-category beliefs naturally manifest in consumer choice. If consumers use single category beliefs when establishing preference, they may significantly underestimate the true utility of a hybrid product.

In this research we explore hybrid products with a perceptual category (what it looks like) that is ambiguous with its conceptual category (what it is labeled as). There is a common view in psychology that perceptual cues dominate human categorization (Sloman 1998). However, there is research that favors conceptual cues (Yamauchi 2005). The discrepancy is in the type of category. With what are referred to as *artifact categories* (things built by humans), perceptual cues are weighted more heavily than conceptual cues; conversely, with what are referred to as *natural categories* (naturally occurring objects: e.g., apples, cats, trees), conceptual cues are weighted more heavily (Matan & Carey 2001). It would seem that for hybrid products only the former is relevant. This is important because artifact categories are typically organized by function (Barton & Komatsu 1989), and although labels provide some expectations, physical appearance is highly correlated with assumed functionality (Matan & Carey 2001). Thus, unlike natural categories, artifact categories may be subject to perceptual cues for functional inferences. This fits with evidence that when a product’s perceptual and conceptual cues are ambiguous, perceptual cues dominate (Gregan-Paxton et al. 2005). Yet, will this manifest in consumer choice?

Recent research in cognitive psychology has questioned the veracity of single category beliefs, arguing that people are quite open to using multiple category inferences if they are aware of the costs of not considering the properties from all categories, and if they are not forced to explicitly categorize the object (Hayes & Newell, 2009). Interestingly, this observation fits consumer choice. Multi-product functions may be all too apparent when compared to something that lacks similar properties. Furthermore, given that the purpose of choice is not to infer what a product is, but to estimate preference based on what it offers, beliefs are not hinged on explicit categorization judgments. Examining choice enables us to directly observe whether participants use multiple or single category inferences to establish preference. This cannot be detected through previous methods without explicitly instructing participants to make inferences.

We explore consumer preference through discrete choice experiments (DCE). In marketing research, DCE has long been regarded as one of the most prevalent choice-based models. It involves designing choice options by attribute-level combinations, from which consumers rank or state buy/no buy decisions (Louviere et al., 2008; Street & Burgess, 2007). If properly designed, a simulated choice experiment can accurately explore consumer preference (Louviere & Woodworth, 1983). We examine two hybrid products: Apple’s mp3-wristwatch (study 1; N=100) and LG’s cell phone-headphone (study 2; N=120). In study 1, participants were randomly assigned to a 2 (perceptual cue: mp3 vs. wristwatch) x 2 (conceptual label: mp3 vs. wristwatch) between subjects design. In study 2, participants were assigned to a 2 (perceptual cue: cell phone vs. headphone) x 2 (conceptual label: cell phone vs. headphone) x 2 (competitive set: cell phone vs. headphone) between subjects design. In all conditions, 12 choice sets were administered with various attribute-level combinations.

Product attributes were selected through pretests. Once established, an optimal orthogonal, main effect plan was used to create 12 discrete choice scenarios, in which each attribute occurred an equal number of times and each pair of attributes co-occurred equally (Street & Burgess, 2007). In each scenario, respondents were offered four alternative products. They were to indicate, “Which of the four alternatives would you be most likely to choose?” and “Which of the four alternatives would you be the least likely to choose?”

They also had to indicate whether they would purchase any of the remaining alternatives. This encouraged participants to make trade-offs among different product attributes, which in this case included attributes of the perceptual and conceptual category, along with price.

Several unique observations emerge from this research. Although supporting single category beliefs in self-report inferences, particularly in favor of the perceptual category, we contribute to extant research by showing that consumers use multiple category beliefs to establish preference. Furthermore, the results of study 2 reveal that certain types of categories are favored under certain circumstances. We find that perceptual categories dominate consumer choice *only* when the product is considered against visually similar products. Conversely, we find that conceptual categories dominate consumer choice when the product is positioned against products that share the same label. Specifically, in the latter, consumers weigh the functional attributes of the conceptual category more heavily than those of the perceptual category, whereas in the former, the converse is true. Again, we reiterate that both categories inform preference as an aggregate, such that a superior perceptual attribute registers more utility than an inferior conceptual attribute, and vice versa. These findings support recent arguments that category judgments are based not only on *what* information comes to mind, but also on *how* it comes to mind (Lee 2004). This is important because both aspects must be considered in the consumption domain, where context plays a major role in framing preference.

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4.5 Individual Papers: Losing Self-Control (and Getting it Back)

Room: Spruce Room

Chair: Jing (Alice) Wang, University of Iowa

Everything in Moderation? When Moderation Leads to Indulgence

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"Everything in moderation" is often recommended as a way to achieve balance and limit consumption. From chocolate to wine to eating out, acting in moderation is expected to combat many problems that deal with consumption excess (e.g., obesity, binge drinking, impulsive buying, alcoholism). For example, a recent public service announcement aiming to reduce alcohol consumption features a picture of vodka with the slogan "It's not what you drink. It's how much you drink that counts. Moderation in all things." Similarly, another advertisement advocating the practice of moderation illustrates a body builder with unnaturally large grotesque muscles accompanied by the slogan "Too much of a good thing is still too much. Moderation."

However, although the practice of moderation has been prescribed by many, there is no empirical research investigating whether moderation actually succeeds in promoting healthy behavior. The objective of this research is to provide a much needed understanding of the role moderation plays in consumption behavior.

Past research has shown that individuals license themselves to indulge when they have previously acted in line with a long-term goal (Fishback and Dhar 2005; Khan and Dhar 2006). That is, when individuals feel they have made progress toward a long term goal, they

have less motivation to engage in self-control directed at achieving this goal. This phenomenon, called the licensing effect, indicates that when progress toward a long term goal is perceived, individuals often disengage from that goal and act in opposition to it.

The licensing effect has been observed in many domains. For example, dieters' who felt they made sufficient progress in losing weight were more likely to choose unhealthy options (Fishbach and Dhar 2005). Similarly, individuals who were induced to feel moral showed less inclination to engage in moral action (i.e., by donating blood) compared to people who were not induced to feel moral (Sachdeva, Iliiev, and Medin 2009).

The present research applies this logic to the concept of moderation. Thus, we hypothesize that activation of the moderation concept leads to a temporary satisfaction of health goals, which in turn makes the individual feel that they are licensed to indulge. Consequently, the activation of moderation should result in greater preference for more indulgent items in a choice set.

Furthermore, individual differences in self-control should moderate this effect. Specifically, individuals who are high in self-control can more easily access past behaviors or project future behaviors where they will engage in healthy eating (Wilcox et al. 2009), and the resulting increase in activation of past and/or future health behaviors consequently makes these individuals feel more licensed to indulge. Thus, the concept of moderation is likely to lead to greater preference for indulgent items in a choice set for individuals who are high in self-control.

To test this hypothesis, participants were assigned to one of two conditions. Participants in the moderation prime condition were asked to elaborate on the concept "everything in moderation." In contrast, participants in the neutral prime condition were asked to provide a summary of their favorite movie. Participants were then shown pictures of 5 dessert choices. Based on a pre-test, these choices varied in their degree of perceived healthiness (from least to most healthy: chocolate brownie with 6 scoops of ice cream, chocolate cake, carrot cake, strawberries with whipped cream, and a bowl of fruit). Participants were asked to indicate their dessert preference. After participants completed the prime and the decision task, trait self-control was measured using the 36-item Self-Control Scale (Tangney et al. 2004). A regression analysis showed a significant interaction between trait self-control and the priming manipulation in predicting the healthiness of food choices. Specifically, among low self-control individuals, the moderation prime was associated with healthier choices than the neutral prime, whereas among high self-control individuals the moderation prime was associated with more indulgent choices than the neutral prime. These results suggest that moderation has the desired effect on low self-control individuals, but that moderation can backfire for high self-control individuals and lead them to prefer indulgent options.

The second study was identical to the first study. However, for the choice task, participants were presented with 6 dessert choices that differed by quantity. Specifically, participants were presented with the choice of 6 cookies, 5 cookies, 4 cookies, 3 cookies, 2 cookies, 1 cookie, or no cookies. Results showed a significant interaction between trait self-control and the priming manipulation in predicting the healthiness of food choices. Specifically, among low self-control individuals, the moderation prime was associated with an average of 3 cookies, whereas among high self-control individuals the moderation prime was associated with 4.5 cookies. These results suggest that moderation has the desired effect on low self-control individuals, since they chose the moderate choice (3 cookies). However, for high self-control individuals moderation led to more indulgent choices (4.5 cookies).

These studies demonstrate a relatively novel effect: the impact of activation of the moderation concept on consumption. Thus, the present research makes an important contribution by providing empirical evidence addressing the question of how moderation influences consumption decisions. Moreover, these results support the counterintuitive proposition that moderation actually leads to

indulgent preferences for high self-control individuals, which has serious implications for the use of moderation in efforts to promote healthy behavior.

Future studies will examine the underlying mechanism for this effect. That is, how does moderation satisfy health goals? Presumably, moderation puts one in a healthy mindset by invoking past instances where one has satisfied a health goal (e.g., I ate healthy last week) or future behavior where one will satisfy a health goal (e.g., I'll eat healthy tomorrow). This mindset would potentially connect the present findings with research on the effect of future choices on self-control, which indicates that when a decision is presented in the context of sequential future choices, people optimistically believe they will be virtuous in the future and are thus more likely to indulge in the present (Khan and Dhar 2007). In other words, individuals might feel licensed to engage in short-term transgressions because they believe they can make up for them in the future.

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From Anna Karenina to Avatar: The Effect of Subgoal Accomplishment on Satisfaction

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Achieving satisfied customers is the endeavor of most marketers and customer satisfaction continues to be a primary concern. One of the important, yet understudied, determinants of customer satisfaction is how consumers evaluate their perceived progress during the consumption experience (Koo and Fishbach 2010). For example, the progress a shopper makes through a Starbucks queue system has been shown to impact subsequent intention to purchase, while perceptions of long lines and slow progress have “scared off” customers from retail stores such as Walmart and Trader Joe’s (Barbaro 2007).

In many retail settings, customers must go through several discrete steps before they can actually consume the product, thereby rendering their progress estimation even more critical. For instance, in Starbucks, customers must first line up at the cash register, then at the barista counter to collect their beverage, and finally, head to the cream-and-sugar station before they can consume the coffee. Therefore, at every stage, customers can gauge the extent to which they have progressed towards their end-goal of consuming the product. In general, marketers believe that providing progress feedback throughout a consumption experience helps enhance that experience. For instance, products such as the online movie streaming service, Netflix, and e-book readers such as the Kindle also provide information about the customer’s progress as they navigate through the consumption experience (the percent of the e-book read; the number of consumed/remaining minutes of the movie). Therefore, with the increase in implicit and explicit “progress pitstops” on a customer’s journey comes the corresponding increased need for research that examines consequents of these progress indicators.

With this research, we aim to provide a systematic study of the impact of progress perceptions on customer satisfaction. In this research, we use literature related to the impact of breaking a goal into subgoals on goal progress to examine the impact of progress perceptions on customer satisfaction. Achieving an end-goal often involves breaking the ongoing goal (e.g., obtaining a good grade) into many individual subgoals (e.g., submitting assignments on time). The general belief is that the breaking down of end-goals into smaller subgoals (Gollwitzer and Brandstaetter 1997) and providing perceptions of progress can favorably impact how consumers

evaluate consumption experiences (Nunes and Dreze 2006). However, recent studies have shown that progress information may lead to lesser satisfaction with the task (Amir and Ariely 2008). In this research, we resolve this seeming contradiction by suggesting that the impact of subgoal achievement on overall goal pursuit is affected by the person's implicit theory orientation.

We suggest that a consumer's implicit theory orientation can differentially impact perceptions of progress for the same naturally occurring end-goals.

Research has identified two types of implicit theories that individuals endorse. Incremental theorists have been shown to focus on learning goals and process while entity theorists focus on performance goals and outcomes (Molden et al 2006). Incremental theorists focus on building mastery skills to achieve end-goals while entity theorists focus on demonstrating performance and achievement. We expect that when pursuing an end-goal, incremental theorists are likely to focus on the end-goal and treat subgoals as part of the goal-pursuit process to achieve the end-goal. In contrast, entity theorists are likely to focus on subgoals since accomplishing subgoals can give a sense of achievement and positive outcomes. Therefore, any task with an opportunity to demonstrate frequent subgoal accomplishment will be preferred more by entity (versus incremental) theorists.

In study 1, using a retail-queue setting, we examined whether implicit theory impacts progress perceptions through a self-generated breakdown of tasks into subgoals. In retail settings, being served at the cash-register is a naturally occurring end-goal. We anticipated that entity (versus incremental) theorists would spontaneously generate subgoals and derive a sense of achievement through achieving those internally generated subgoals, which in turn may impact their perceptions of waiting time, and their evaluations of the queuing system and retail store. After completing the implicit theory scale (Levy et al. 1998), respondents were asked to imagine that they were standing in line (described similar to the queue system at Wholefoods supermarket) after finishing their grocery shopping. Respondents viewed three visuals of the line system, each visual representing the line after every five minutes, and their own position in the line as it moved towards the cash register. Results of study 1 show that entity (versus incremental) theorists were more likely to generate spontaneous subgoals in a natural end-goal setting (reaching and being served at a cash register) and preferred tasks with greater subgoal accomplishment. Interestingly and critically, entity theorists perceived shorter lines, *and* evaluated the line and store more favorably than incremental theorists.

In Study 2, we sought to extend the findings of study 1 with a specified end-goal and explicitly provided subgoals. Using a classroom assignment setting, we used actual behavioral information to assess whether task enjoyment and evaluation are impacted when participants' end-goal is explicitly broken down into subgoals. Students were asked to read four marketing-related chapters as part of extra credit assignment after which, respondents indicated their recall and overall evaluation of the chapter, evaluation of progress on the task, and perception of the extent of task completion. We observed that students with an entity (versus incremental) theory evaluated the task more favorably when the task was broken down into subgoals. Further, while entity theorists focused on outcome, incremental theorists focused on the process and submitted more assignments as per the recommended schedule.

Finally in study 3, we showed that task characteristics (enjoyable vs. aversive tasks) moderate these effects. The results showed that while many enjoyable consumption and shopping environments may benefit from breaking down the end-goal into smaller sub-goals, the same process may be detrimental for less enjoyable consumption environments if respondents with incremental theory participate in these tasks.

Our findings contribute to the literature on goal pursuit and resolve some of the conflicting findings related to the effects of goal progress feedback on goal achievement. We highlight that the beneficial effects of providing goal progress information is dependent on the consumer's implicit theory and the nature of the task.

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Self-Inferred Norms Reduce Desire And Consumption Through Changing Product Perceptions

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Self-control has traditionally been seen as the struggle between desire and will-power (Hoch and Loewenstein 1991). While both components are important for explaining self-control, prior research aimed at improving self-control has predominantly focused on the willpower component, while taking the desire component as a given. Still, changing consumers' preferences and their resulting desires may prove more successful for improving consumers' self-control in the long run. Preferences are more stable than the ability to exert willpower. Imagine that you truly prefer apples over ice cream. You will take an apple not only now, but you will probably also choose apples over ice cream next time around. In contrast, if you follow your friends' explicit recommendation and deliberately choose an apple against your own taste preference, you will probably not choose apples again on future occasions. Hence, changing preferences is a potentially more reliable tool to help consumers to deal with temptations. The current paper examines non-consummatory pre-exposure to temptation as a technique to sustainably change preference.

The potential benefits of exposure to a temptation have been subject to debate. On the one hand, pre-exposure to temptation effectively reduces desire when the control conflicts during pre-exposure and post-exposure are similar (Dewitte et al. 2009; Geyskens et al. 2008). On the other hand, physical presence often increases craving for and consumption of the tempting product (Mischel et al. 1972; Wansink 1996). We propose that the nature of normative control, which can be explicit or tacit, will moderate the effect of pre-exposure to temptation on subsequent self-control ability. Explicit consumption norms, such as those communicated by parents or marketing actions, may discourage the succumbing to temptation in the short run, as long the norm is still activated. But their effects may wane when the accessibility of the norm fades. Tacit norms, inferred from the prevalent circumstances (e.g. known rules of conduct during a formal reception) might prevent succumbing also in the longer run. Self-inferred norms urge people to actively cope with the behavioral conflict induced by the temptation. People do not need such strategies when explicit norms are present, which allow reliance on social force. We claim that ignoring the tempting nature of the temptation is one important way to reduce desire for a vice product and hence to deal effectively with temptation. We tested two implications of this claim. First we test whether, compared to an explicit norm, a tacit norm more effectively reduces the relative attractiveness of the vice product. Second, using multidimensional scaling, we test whether activation of tacit norms diminishes the importance of the most tempting dimension of a temptation in a perceptual map. Our data are the first to show that self-inferred norms effectively change product perceptions, and reduce desire.

In two experiments, we exposed participants to a temptation in two successive phases. We manipulated the norm (explicit or tacit) during pre-exposure in the first phase, and the delay (present or absent) between two phases. We also added a control condition without pre-exposure to temptation. First, participants engaged in a knowledge task. In the experimental condition, they matched

candy flavors with wrapper colors. The context of the task strongly suggested that they should not consume. They were either told to not eat candies (explicit norm) or were told nothing (tacit norm). In the control condition, participants engaged in a similar knowledge task not involving candy (Geyskens et al. 2008). The second phase started either immediately or after a 15 minute delay. Participants were asked to taste and evaluate a different vice product. In Study 1 we measured the amount of candy consumed during the second phase (as a measure of self-control) and the change of preference ranking for the candy used in the second phase. In Study 2, we measured perceptions of drinks varying in sweetness and freshness and measured the importance of the sweetness dimension in the participants' revealed perceptual map.

In Study 1, we replicated the effect of pre-exposure to temptation (Geyskens et al 2008). Participants consumed less in the four experimental conditions than in the control condition ($F(1, 97) = 16.39, p < .01$). Planned contrasts showed that delay increased consumption in the explicit norm condition ($F(1, 71) = 4.84, p < .05$) but not in the tacit norm condition ($F < 1$). Also the findings for preference rankings were in line with predictions. The type of norm affected preferences ($F(2, 97) = 6.35, p < .05$): Compared to the control condition ($M = 1.52$) and to the explicit norm condition ($M = 1.00$), the preference for the tempting product was lower in the tacit norm condition ($M = 0.11$). The former two did not differ ($F(1, 97) < 1$). In Study 2, we found that the sweetness dimension, representing the tempting nature of the temptation in phase 1, was properly reflected in the multidimensional map of a set of 6 drinks varying on sweetness and freshness. Individual difference scaling (INDSCAL) analysis revealed that the sweetness dimension weights were significantly lower with the tacit norm ($M = .98$) compared to the explicit norm ($M = 1.07, F(1, 57) = 4.48, p < .05$) and to the control condition ($M = 1.13, F(1, 57) = 7.37, p < .01$), while the latter two did not differ ($F < 1$). With a tacit norm, sweetness effectively becomes a less salient dimension in the product perceptions after exposure to a sweet temptation, whereas this is not the case with the explicit norm.

Two studies show that explicit norms enhance self-regulation in the short run, but tacit norms reduce preferences for the temptation and enhance self-regulation in the long run. The most interesting finding was that people who experience a tacit norm alter their perception of the most tempting dimension of a vice product, by diminishing its importance. From a social marketing perspective, nudging consumers to infer their own norms may be more effective for longer-lasting self-control enhancement than directly imposing the norm.

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Yielding to Temptation due to Depletion: Can Mental Budgets Help?

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People often try to change their behaviors when they find their actions to be inconsistent with their long-term goals. A good example is dieting; people often try to limit the consumption of foods in order to achieve weight loss. For instance, at any given time, there are approximately 46% of women and 33% of men dieting to lose weight (Bish, Blanck, Serdula, Marcus, Kohl, and Khan, 2005). This trend has contributed an estimated \$60 billion a year to the weight-loss industry. This attempt to change one's behavioral tendencies is known as self-regulation. Unfortunately, attempts at self-regulation are often unsuccessful. According to some reports, 95% of dieters

are unsuccessful at losing weight the first time they attempt to do so (<http://www.exrx.net/FatLoss/WhyDietsFail.html>). Thus, attempts at self-regulation often fail despite one's best intentions.

Mental budgets are explicit quotas that an individual has set to self-regulate a certain behavior. Previous research shows that mental budgets work as instruments of self-regulation because they enhance goal focus and enable monitoring of one's current performance in regards to the goal (Krishnamurthy and Prokopec, 2010). For mental budgets to be effective as instruments of self-control, they have to be accessible (i.e. through a reject task), and monitoring of the behavior has to be allowed.

Pelham, Sumatra and Myaskovsky (1994) describe the numerosity heuristic as a decision short-cut exemplified by the tendency of people to look for numerical/quantitative information to resolve difficult decisions. Since mental budgets convert broader goals like 'reduce consumption of desserts' into numerical goals like 'no more than 2 desserts per week', they allow people to use a numerical basis for making the decision. Furthermore, Wan and Sternthal (2006) introduced a resource monitoring model, which is based on the idea that depletion causes individuals to neglect the standard for performance and to fail to monitor their self-regulatory activity performance with their standard. As previously mentioned, mental budgets can help people self-regulate better because they (1) provide goal focus, and (2) enhance monitoring. If mental budgets provide simple numerosity-based (quantifiable) decision criterion, as well as goal focus and enhanced monitoring, then a person with a mental budget should be able to regulate their consumption better even when low in resources than a person without the mental budget. One way to understand how mental budgets can affect self-regulation when resources are depleted is to examine the impact of an orthogonal resource depletion task on the effectiveness of mental budgets as regulatory devices.

In the first study, one hundred eight students at a large metropolitan university participated in exchange for course credit. The design was a 2 (Mental Budget: Yes/No) \times 2 (Load: High/Low) between subjects design. The design of this experiment was adapted from previous work on the relationship between mental budgeting and self-regulation (Krishnamurthy and Prokopec, 2010). All participants in the mental budget condition were asked to type in the number of desserts they planned to consume during their shopping trip. Following this, all the participants went on a hypothetical virtual shopping trip through the mall where they were presented with photos of different desserts that stores had to offer as a part of the promotion. We manipulated load using an attention-control task adapted from Baumeister et al. (1998) and Vohs and Faber (2007) in which some people are asked to actively ignore an irrelevant portion of the information environment. The critical dependent variable was the number of desserts selected (out of a maximum of five).

In prior studies on self-regulation, participants resource-levels are depleted, and they are asked to choose or make otherwise affirmative judgments about objects (for example, in Vohs and Faber 2007, people indicate their willingness to pay for products). Thus, in order to replicate earlier findings, we had to design the first study using the 'choose' task, knowing beforehand that the mental budget effect will not be there. We did observe a main effect of load on the number desserts selected, $F(1, 103) = 3.20, p < .07$. Those in the low load condition picked fewer desserts than those in the high load condition, 0.30 versus 0.37 (raw numbers were 1.44 versus 1.77). Thus, we replicated the robust finding that depletion leads to lower self-regulation. As expected, we failed to find a mental budget effect.

In contrast, the goal for the design of study 2 was to do it in the context of a reject task because, per earlier findings, a reject task makes the standards (or goals) provided by the mental budgets more accessible. We observed a main effect of mental budgets on the number desserts selected, $F(1, 138) = 9.41, p < .002$. Those in the mental budget picked fewer desserts than those in the control condition, 0.36 versus 0.54 (raw number of selected desserts were 1.73 versus 2.30). Mental budgets were consistently more effective

in lowering the number of desserts selected compared to control condition in all load conditions—0.28 versus 0.52, $p < 0.04$ in high load and 0.39 versus 0.57, $p < 0.06$ in the low load (the raw numbers were 1.38 versus 2.24, 1.85 versus 2.47 respectively).

Our findings demonstrate that when participants have a mental budget they are able to regulate their consumption of desserts equally well regardless of the amount of resources they have available. Furthermore, our findings indicate a boundary condition for the resource depletion effect that depletion effects may be task dependent in that they work only in a choose task. In a similar vein, mental budgets seem to be task dependent in that they work only in a reject task. As a result, while we are able to say that mental budgets work as self-regulatory devices in a reject task when the resources are low, we are not able to definitively say that mental budgets would always work when resources are low because we could not find both a mental budget effect and a depletion effect in the same decision setting. While this represents a limitation of the present research, it opens up the possibility that the task itself may have resource implications (as noted in Krishnamurthy and Nagpal, unpublished manuscript). Our findings (combined with previous findings by Krishnamurthy and Nagpal) suggest that a reject frame taxes resources less than a choose frame; thus even when a consumer engages in other resource-consuming tasks, adopting the reject frame enhances self-control. This is a question for further research.

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4.6 Symposium: Using Brands to Convey Who We Are and Who We Want to Be

Room: Maple Room A

Chair: Sara Loughran Dommer, University of Pittsburgh, USA

When Do Consumers Bolster Their Preferences in the Face of Threat? The Role of Self-Construal and Collective Identity Activation

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Marketers often link their brand with an aspect of consumer social identity. To illustrate, a recent Old Spice campaign attempts to connect its products with male gender identity through the use of the tagline “Smell like a man, man,” whereas Secret links its brand of deodorant to female gender identity with the tagline: “Strong Like a Woman.” Although marketers can link products with various aspects of consumer identity, the effectiveness of such a strategy may depend on other contextual factors. Recent research suggests that when consumers experience threat to one aspect of social identity (e.g., their gender identity or nationality), they sometimes avoid products associated with that identity (White and Argo 2009). The present research identifies instances where consumers will strengthen their connection to the identity-linked product, as well avoiding the product in response to social identity threat.

Drawing on social identity theory (Tajfel and Turner 1986) and self-construal theory (Singelis 1994), we examine the prediction that the impact of identity threat on product preferences is moderated by self-construal. The independent self is viewed as being autonomous, unique, and separate from other, whereas the interdependent self is viewed as more collectivistic, communal, and relational (Markus and Kitayama 1991). We propose and find that those with interdependent self-construals demonstrate more positive evaluations of identity-linked products when that social identity is threatened versus not threatened. Our framework proposes that

those who are highly interdependent are particularly attuned to their social identities, and, that identity threat primes or activates these multiple social identities. They are then able to draw on these identities as a resource, and feel more positively about their multiple group memberships when under threat (e.g., Knowles and Gardner 2008). Those with independent self-construals, in contrast, do not activate their multiple identities in response to threat, and, instead, are motivated to enhance the individual self (Heine 2001). Consequently, independent selves are more likely to avoid an identity-linked product when the social identity becomes threatened.

In study 1, we examine differences in self-construal by investigating differences between Asian and Caucasian Canadians. We exposed participants to negative (threat condition) or neutral information (neutral condition) regarding their university. Participants then completed the twenty statements task (“I am _____,”) which was coded for statements related to social identities in general and university-identity in particular. They then evaluated products that were matched for price and pretested as being related to university-identity or neutral (university book store vs. a restaurant gift certificate). Interdependents evaluated an identity-linked product more positively when threatened versus not threatened. In contrast, independents evaluated identity-linked products more negatively when threatened (vs. not threatened). These effects were mediated by the differential activation of multiple identities (but not by the activation of the threatened identity only).

In study 2, we used a similar method to study 1, with the exception that we assessed individual differences in self-construal (Singelis 1991) and measured the degree to which participants felt a sense of connectedness with their multiple social identities. Once again, interdependents (independents) evaluated an identity-linked product more positively (negatively) when threatened versus not threatened. These findings were mediated by feelings of identification to multiple social identities (but not to the threatened identity only). Study 3 examined primed differences in self-construal and provides additional support for our framework by demonstrating that interdependents not only demonstrate more positive evaluations of the focal identity (when threatened vs. not threatened), but that they also show this bolstering effect for another aspect of identity, suggesting that multiple identities have been activated for those who are more interdependent (and are under threat).

Finally, in study 4 we further examined the underlying process by using a cross national sample (Hong Kong vs. Canada) and investigated the moderating role of affirmation type (self-affirmation, group affirmation, or no affirmation). The results confirm with a cross-national comparison that, overall, interdependents are more likely to demonstrate identity bolstering responses, whereas independents are more likely to show identity dissociating responses when the particular identity is threatened. Second, the results show that among those from Hong Kong (who were more interdependent), more positive evaluations of the university identity-linked products emerged under conditions of group affirmation as compared to conditions of no affirmation or self-affirmation. This suggests that for interdependents, a group-affirmation enhances the ability to feel positively about a threatened group membership. Among independents, however, self-affirmation led to more positive university product evaluations as compared to no affirmation and group-affirmation, suggesting that only by affirming the individual self are independents able to evaluate the identity-linked product positively under threat.

Taken together, the results highlight the conditions under which identity bolstering can occur and provide support for the notion that among interdependents, identity threat primes multiple identities which can have a buffering effect on social identity threat. Independents do not activate their multiple identities in response to threat and respond to identity threat in ways that are self-enhancing. Implications for theory, practice, and research will be discussed.

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Identity Expression with Brands Following Threats to the Social Selves

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A vast amount of research has confirmed that consumers use products in a symbolic way to narrate their identities (Belk 1988). Brand names enable consumers to express their self-identities (Escalas and Bettman 2003; Fournier 1994) and marketers often link aspects of brands with a target consumer's identity to influence consumer preferences. Where little attention has been paid, however, is in answering the questions of why consumers use brands to express their identities. In this research, we examine the role of type of social self-threat to better understand why consumers use identity-consistent brands as vehicles of identity expression.

The social self consists of both the relational self and the collective self (Brewer and Gardner 1996). The relational self consists of aspects of the self-concept that are shared with relationship partners and define the person's role or position within significant relationships. Relationships are essential for self-enhancement (Cross, Morris, and Gore 2002). For people with interdependent or relational self-construals, the desire for self-enhancement is centered around the relationship (English and Chen 2007). Self-enhancement leads to greater self-brand connection to brands associated with one's aspirational groups (Escalas and Bettman 2003). Therefore, a threat to the relational self should trigger goals related to impressing the relational partner. When individuals experience a relational self-threat, we argue that they will demonstrate greater levels of attachment to identity-consistent and this effect will be mediated by ideal self-concept connection to the brand.

The collective self is the aspects of the self-concept that differentiate in-group members from members of relevant out-groups. A collective self-threat, therefore, threatens the extent to which you feel a part of a group. The desire to connect with others is among the most fundamental human motivations (Baumeister and Leary 1995). Social exclusion motivates reconnection (Maner et al. 2007). The desire to reconnect should be motivating when one feels like he or she does not belong or fit in with the group. When individuals experience a collective self-threat, we argue that they will demonstrate greater levels of attachment to identity-consistent and this effect will be mediated by social self-concept connection to the brand.

In studies 1 and 2, we elicited names of identity-consistent brands and identity-inconsistent brands from respondents and then asked them to evaluate these brands under varying types of social self-threat (relational in study 1; collective in study 2). We find that both types of social self-threats result in greater brand attachment to an identity-consistent brand compared to a control group. For a relational self-threat, we find that this increase is mediated by ideal self-concept connection to the brand. For a collective self-threat, the increase in brand attachment appears to be mediated by social self-concept connection to the brand. So, attachment to identity-consistent brands increases following either type of social self-threat. The process underlying these effects, however, depends on the type of social self-threat. Individuals experiencing a relational self-threat want to signal their ideal selves. Individuals experiencing a collective self-threat want to signal their group membership (or group selves).

In studies 3 and 4, we look at identity-consistent brands as they relate to the salient identity of being a business student. Following either the self-threat manipulation or the control task, respondents read a scenario in which they were to imagine they had joined a business fraternity and were deciding what to wear to the meeting. They were then asked to choose the brand they would be most likely to wear to the meeting. They chose between two brands, which were chosen based on a pretest using undergraduate business school students. One brand was meant to represent the "ideal self" of an undergraduate business school student. Another brand represented the "group self" of an undergraduate business school student. Compared to a control group, individuals experiencing a relational self-threat should be more likely to choose a brand that will signal their ideal selves, while individuals experiencing a

collective self-threat should be more likely to chose a brand that will signal their group membership. This is precisely what we find. Moreover, we find that ideal (social) self-concept connection to the brand drives the increase in choice of an ideal (group) brand for individuals experiencing a relational (collective) self-threat.

Taken together, the results from these studies highlight the value of identity expressive brands for consumers when their social selves are threatened. Our results suggest that although identity-expression via brands is likely to happen following any type of social self-threat, the type of identity expressed will depend on the type of social self-threat experienced. More broadly, the present research demonstrates reasons why consumers use brands for identity expression and therefore provides a better understanding of the role of brands as vehicles of identity expression.

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Brands as Self-Expression Vehicles: Valuing Brands We Want to Be Like and Devaluing those We Don't

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Brands are a valuable short-hand for expressing aspects of who we are (e.g., our current personality traits) as well as who we want to be (e.g., our desired identity goals; Belk, 1988; Escalas and Bettman, 2003). That is, a consumer might prefer an Apple brand laptop because she considers herself creative (a trait) or because she strives to be creative (a goal). Although this distinction may seem minor at first blush, we suggest that trait and goal-based self-expression can produce distinct effects. One such effect, which is the focus of the current research, is the devaluation of competitor brands, which, we argue, is a consequence unique to self-expression based on goals.

What does it mean to devalue a competitor brand? Many brands are available in a product category, some of which may be positioned in a way that is useful for an identity goal (as Apple is to a creativity goal), while other brands are positioned in ways that are not useful for that particular goal (as IBM or Dell are to a creativity goal). Here, competitor brands refer to those brands whose positioning is not useful to a particular identity goal. Devaluation refers to a specific evaluative effect. It follows from the literature that when an identity goal is active, competitor brands should become relatively less attractive than brands that are useful to the active goal; but, importantly, this relative difference can be further decomposed into two separate effects: a valuation effect, whereby goal (vs. no goal) activation renders a brand linked to the goal more attractive, and a devaluation effect, whereby goal (vs. no goal) activation renders competitor brands that lack this link less attractive. We posit that the consequences of identity goal activation on brand evaluation are driven by both valuation and devaluation and that, because goal pursuit entails inhibitory processes, devaluation is a uniquely goal-based (and not trait-based) effect. To address these hypotheses, in three experiments we prime an identity goal and ask consumers to evaluate a well-known brand positioned as useful for the goal or a competitor brand. We test for valuation and devaluation effects, test whether the devaluation of competitor brands is associated with goal (and not trait) activation, and test for conditions where the effects of brand positioning on valuation and devaluation can be overridden.

Experiment 1 tested the basic hypothesis that identity goal activation would produce valuation of a brand positioned as useful to that goal and devaluation of a competitor brand. The study used a 2 (creativity prime vs. neutral prime) X 2 (evaluate Apple vs. IBM brand) between-subjects design. First, a scrambled sentence task supraliminally primed a creativity goal (or no goal). Next, participants evaluated a new laptop ostensibly designed by Apple or IBM. Following creativity goal priming (vs. no goal priming), we predicted that Apple would be more attractive because the Apple brand is linked to innovativeness and uniqueness, whereas IBM laptop would be less attractive because the IBM brand lacks links to creativity. This pattern is precisely what was found.

Experiment 2 tested the view that devaluation is unique to goal-based self-expression. We reason that valuation can occur through either goal activation or simple spreading activation among semantic constructs, whereas devaluation should occur only through the inhibitory processes activated during goal pursuit. Thus, valuation should occur when either goal or trait activation is high, but devaluation should occur only when goal activation is high. To test this view, we examined the moderating role of goal progress. Because goal progress minimizes goal-based but not trait-based effects, we can test whether valuation and devaluation are driven by trait or goal priming by examining whether the effects persist when consumers feel they have made significant progress toward a goal. We predicted that progress toward a goal would minimize devaluation, but not valuation. Thus, Experiment 2 used a 2 (creativity prime vs. neutral prime) X 2 (evaluate Apple vs. Dell brand) X goal progress between-subjects design. The methods were identical to experiment 2 except that participants were given an opportunity to pursue their goal and asked to evaluate their goal progress before evaluating the laptop. If devaluation is caused by high levels of goal activation, then it should be attenuated by goal progress. If valuation is caused by high levels of goal *or* trait activation, it should occur independent of goal progress. The results support this prediction.

Experiment 3 introduced information about tangible and goal-relevant product features to investigate conditions in which brand-based valuation and devaluation effects can be overridden. We used automobiles that were linked (or not) to the goal to be moral through brand as well as fuel efficiency, a goal-relevant product attribute. We used the brand Prius, which is associated with morality via fuel efficiency and environmental consciousness, and Echo, which is not associated with morality. Experiment 3 used a 2 (morality prime vs. neutral prime) X 2 (Prius vs. Echo brand) X 2 (high efficiency vs. low efficiency car) between-subjects design. We predicted and found that a brand positioned as useful to a morality goal (Prius) is devalued, rather than valued, if its tangible attributes are not useful to the goal. Similarly, a reversal occurs for a brand that is not useful to the goal (Echo) – it is valued, rather than devalued, when its tangible attributes are useful to goal attainment.

Collectively, these studies extend self-expression research by highlighting unique effects of goal activation and demonstrating critical boundary conditions for valuation and devaluation of brands. These studies also have implications for research on valuation and devaluation more generally. Although valuation and devaluation effects have been documented in prior studies, those studies have not reliably yielded evidence for each, nor have they revealed when priming causes one effect or the other. By examining the role of goal activation, the current research demonstrates one underlying cause for why valuation and devaluation effects occur together, and why one effect can occur without the other. In doing so, the results also imply that devaluation is one way to disentangle goal from semantic priming.

4.7 Individual Papers: Consumer Donation and Volunteerism

Room: Maple Room B

Chair: Sean Blair, Northwestern University

Give Credit Where It is Due: The Role of Money Concepts in Money-Help Paradox

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As evidenced by the worldwide impact of the recent economic meltdown initiated by the sub-prime mortgage crisis, there is perhaps no more important or powerful cultural influence on people's daily lives than money (Ferguson 2008). The pursuit of money has been vilified as the root of all evil or valorized as the ultimate expression of individual self-interest (Rand 1957). In times of economic hardship, philanthropy and other forms of helping behavior become even more important as a means of providing a safety net for those who are disadvantaged due to illness or economic loss. In a typical broadcast fundraising appeal potential donors may be encouraged to give \$25, \$50, or perhaps \$100 (in return for a mug or t-shirt). Unfortunately, the close association between money and individual self-interest or self-sufficiency poses particular problems for organizations that rely on approaches such as this. The mere mention of money may cause potential donors to hold more tightly to their resources, to be less likely to offer help or to seek help (Vohs, Mead, and Goode 2006). This is a particularly vexing paradox given that charitable and non-profit organizations cannot easily avoid mentioning money in their solicitation activities.

Our research attempts to address this paradox. We argue that there are many forms of money, some of which may have quite different implications for helping behavior. The idea that different payment mechanisms can influence behavior differentially, though intriguing, is not new. In an interesting study, Feinberg (1986) demonstrated a substantial increase in spending and donation amounts by merely exposing the participants to credit-card paraphernalia i.e., the participants in the credit-card condition had a MasterCard logo placed on the desk where they were participating in the study. Later studies have confirmed the findings to suggest that credit cards do facilitate spending relative to cash (Prelec and Simester 2001; Soman 2001).

In this research we suggest a cost-benefit framework wherein different payment mechanisms are represented in memory differentially and have different associations. We argue that "cost" attributes tend to be relatively more accessible and important in cash-based price-elicitation tasks (Fischer and Hawkins 1993; Lichtenstein and Slovic 1971). Conversely, "benefit" attributes tend to be more accessible and receive relatively greater weight when value judgments are formed on the basis of credit-card based price elicitation tasks. This is so because consumers' ubiquitous use of credit cards obviates close attention to cost-related concerns. Thus, consumers' prior experiences of instant gratification of desire when paying with a credit card invoke a buy-now-pay-later mentality (Mendoza and Pracejus 1997; Shimp and Moody 2000). With repeated credit card purchase experiences ending in immediate gratification of desires, this can also result in a greater accessibility of benefit considerations relative to cost considerations. Our arguments are consistent with the notion of compatibility which suggests that the weight of a stimulus attribute is enhanced by its compatibility with the task or response mode (Fischer and Hawkins 1993; Tversky, Sattath, and Slovic 1988). Thus, in line with the compatibility principle, we propose that different judgments between credit-card payments and cash payments arise due to the compatibility between the nature of attributes (i.e., costs vs. benefits) and consumers' focus. We expect the credit card primed participants to focus on the benefits of giving and receiving help, thereby offering and seeking help when needed while the converse is true for the cash primed participants.

For study 1(a), we gave participants \$1 in quarters in exchange for their participation, ensuring that they had money to donate. We assigned participants to either cash or credit-card conditions, in which they descrambled phrases that primed cash or credit-card concepts (a separate pretest was done to identify concepts related to different payment mechanisms). After a filler task and just prior to leaving the lab, the experimenter mentioned that the lab was taking donations for the University Student Fund. The money donated was our dependent variable for the helping behavior. Analysis indicated that credit-card primed participants were willing to donate a significantly greater amount relative to cash-primed participants.

For study 1(b), we were interested in whether or not credit-card primed participants would seek help quicker than the cash primed participants, an outcome that would again suggest that not all forms of money have the same effect on helping behavior. We gave the participants a puzzle after they completed the sentence unscrambling task. Our measure of help seeking was the time participants spent on the puzzle before seeking help from the experimenter. Consistent with our cost-benefit framework, credit-card primed participants sought help significantly earlier than cash primed participants.

For study 2, our objective was to provide direct evidence toward our proposed scale-compatibility-based cost-benefit framework. The dependent variable was time and willingness to volunteer to a charitable organization. After the priming task, participants were given information about the charity and the pros and cons of volunteering were listed in a paragraph. Subsequently the participants completed a word completion task and the dependent variables were measured. Word completion task entailed completing 25 words which were left incomplete (9 were neutral words and rest equally split between the two conditions). The order of word completion task and dependent variable assessment was counter-balanced which however did not influence our results.

A 2 (payment mechanism: credit-card vs. cash) x 2 (order: scale compatibility task-dv vs. dv -scale compatibility task) x 2 (target type: pros vs. cons) repeated measures ANOVA was conducted, with target type being a within-subject factor. Participants in the credit-card condition relative to those in the cash condition indicated a greater willingness to volunteer time and the amount of time volunteered. There was a significant payment mechanism x target type interaction. Participants in the credit-card condition identified more words related to benefits compared to those in cash condition. In contrast, participants in cash condition identified more target words related to costs than those in credit-card condition.

To conclude, our results indicate that various forms of payment mechanisms may influence the helping behavior differentially. In addition, results are consistent with the proposed cost-benefit model.

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2 + 2 is greater than 4: The effect of matching donations on compliance and donation amounts

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Matching donations are increasingly used to solicit donations and to induce donors to comply to requests. Academic research on the effect of matching donors provides mixed results. On the one hand, prior research by Fraser et al suggests that matching donations decreases compliance to requests, while on the other hand more recent evidence (Eckel and Grossman 2005) suggests that matching

increases compliance to requests. We examine and suggest that matching leads to increased compliance when donors do not perceive high anchor point requests for their donations.

However little evidence exists on the process by which matching donations influences both compliance to requests and also donation amount. One of the only papers that has examined this is by Eckel and Grossman (2006), who show that requests framed as matching induce higher compliance than requests framed as rebates to the donor. In this research, through a series of six experiments we show that matching increases the perceived efficacy of the donations (termed as “perceived impact”), and this in turn mediates the effect of matching on compliance. We rule out alternative explanations of “perceived sacrifice” or the inward focus on how much money one can potentially donate. We further show that efficacy salience, monetary threshold and level of match moderate the effect of match on perceived impact, and hence on compliance.

We suggest that small denomination donors do not comply with requests with donations due to low perceived impact of their donations, which is mitigated by having a matching donor. However, matching suppresses and substitutes some of the amount donated among the higher denomination donors. So we suggest that when individuals make decisions on donation amount they balance perceived impact with perceived sacrifice. We however show that matching does not fully substitute donor dollars, and hence matching increases the net total donations received by the charity. We examine this by studying donor attitudes to matching with three studies that involve scenario studies, and follow it up with two experiments that study donor behavior to matching. We also support evidence through two field data sets that shows that matching increases compliance to gifts given by alumni to a leading ivy league academic institution, and smaller donors make more donations to a leading charity website with matching donors than without. This we examine by looking at data obtained from the website pre and post matching fund campaign.

In Study 1 we ask individuals to imagine graduating from college and having some discretionary money. They are then asked to imagine being approached by a leading charity and are then asked to provide scaled response on intentions to donate, perceived impact, perceived need of the donation, perceived compliance of other donors, signaling effect of matching and information on their donation behavior over the past year. We manipulated the amount of discretionary income (low/high) and whether or not there was a matching donor (yes at 1:1/no). Findings revealed that matching greatly increased donor compliance among those with lower discretionary income and did not affect those with higher income. Mediation analysis suggests that matching affects compliance through perceived impact; and affects donation amount through both perceived impact and perceived sacrifice.

In Study 2 we vary perceived need by suggesting in the scenario study that the donation has collected was 50% of the total amount and that it was either hard or easy to fulfill the rest of the requirement due to the upcoming holiday season. In this 2*2 study of match (yes/no) vs need (low/high) we find that under conditions of higher perceived donor need, matching induces higher compliance due to higher perceived impact from making a donation.

In Study 3 we make individuals make a decision between helping a charity that has a higher need for their funds, with the donor objective of higher perceived impact. This we do by varying the amount of money already raised by charity. We find that more individuals donate to a charity with matching funds, when the donation has already collected 90% of their requirements than if they had completed only 10% of their requirements.

In Study 4 we recruit subjects for playing an experiment that involves playing a time management game for one hour. At the end of the study we pay participants \$10 or \$20, and on their way out of the room place a charity box with or without matching donor funds. In Study 4a we find that matching increases compliance. In Study 4b we show that having a threshold beyond which only matching

applies, reduces the perceived impact among low denomination donors which suppresses donation compliance. Alternatively, asking individuals to drop their dollars and the matching donor dollars into the donation box, increases salience of perceived impact that exacerbates compliance.

In Study 5, we study if perceived impact from matching can be mitigated by asking individuals to choose between donations and personal recognition. We find that introducing personal recognition, makes it an economic decision rather than a warm glow decision, making individuals to use matching funds for personal recognition than for perceived impact.

In the field data we show that following donors that initially donated through a matching donation from their employer donate more over a five year period than others that either did not have an initial matching employer or had not donated in the first place. In the data from the leading charity website, we find that individuals that make use of the matching funds comply more and donate more, but choose more often to remain anonymous donors.

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Selected Predictor Variable Effects on Cause-Related Purchase Intentions: An Empirical Examination

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A facet of a corporate social responsibility program is cause-related marketing (CRM). This study differs from previous CRM research in two ways – we consider the collaborative effects of two structural variables (product-cause fit and donation quantifier) on purchase intentions, and, we look at the moderating effects of purchase type.

Fit, in social marketing, is the perceived link between the firm's product line, brand image, position, and/or target market and the affiliated cause's image (Varadarajan and Menon 1988). CRM programs are more effective when the product sold is frivolous (versus practical) as its consumption results in some guilt on the part of the consumer likely mitigated by the concurrent donation to a cause (Strahilevitz and Myers 1998). We posit that in order to optimally alleviate the feelings of guilt, logical product-cause pairing is important since a high (low) fit is likely to generate positive (negative) thoughts (Becker-Olsen, Cudmore, and Hill 2006). Hence,

H1: High (versus low) levels of product-cause fit will result in higher levels of purchase intentions.

Donation quantifier represents the amount going to a cause from each purchase and varies from an exact (as a dollar) amount to a vague statement such as "a portion of the proceeds will be donated". Although exact quantifier was found to be more effective in an exploratory study (Grau, Garretson, and Pirsch 2007), we found no experimental study that directly compared the effectiveness of an exact versus a vague donation quantifier. We feel the need for such, given the overwhelming presence of vague quantifiers (Pracejus, Olsen, and Brown 2004). Hence

H2: An exact (versus vague) donation quantifier will result in higher levels of purchase intentions.

When using multiple cues during a consumer purchase situation, a consistent or collaborating pattern exhibited among the cues is more useful than an inconsistent pattern. For inconsistent cues, focus is likely to be on the disparate cue and evaluations are anchored from that perspective due to the negativity effect (Miyazaki, Grewal, and Goodstein 2005).

Assuming that product-cause fit and the donation quantifier are the cues used in a cause-related purchase context, high product-cause fit and an exact donation quantifier ought to be consistent cues likely resulting in greater purchase intentions than any other combination of the two. Hence:

H3: Product-cause fit and the donation quantifier will interact to effect purchase intentions. High product-cause fit and an exact donation quantifier will result in higher levels of purchase intentions than any other combination of the two.

In the current context purchases are classified as either planned or impulse. Impulse purchases tend to be less vigilant and contemplative (Lee and Kacen 2007) and are usually characterized by processing a lesser amount of information (D'Antoni and Shenson 1973). In the current context, this could mean that for an impulse (versus a planned) purchase one might be less likely to think about the plausibility regarding the alliance of the product with a cause and how much of the purchase price is going towards the cause. Hence

H4 (i): Purchase type will moderate the effects of product-cause fit on purchase intentions. For a planned purchase, high (versus low) levels of product-cause fit will result in higher levels of purchase intentions. Alternatively, for an impulse purchase, there will be no difference in purchase intentions regardless of the level of product-cause fit.

H4 (ii): Purchase type will moderate the effects of donation quantifier on purchase intentions. For a planned purchase, an exact (versus vague) donation-quantifier will result in higher levels of purchase intentions. Alternatively, for an impulse purchase, there will be no difference in purchase intentions regardless of the specificity of the donation quantifier.

143 undergraduate students participated in the experiment featuring a 2 (product-cause fit) X 2 (donation quantifier) X 2 (type of purchase) between subjects factorial design. Planned purchase condition read: "Imagine that you are entering your local supermarket with a list of items that you need to purchase on your shopping trip. One item on the list is a box of assorted cookies". Impulse purchase condition read: "Imagine that you are entering your local supermarket and you notice a table display set up to sell a box of assorted cookies".

Product-cause fit was manipulated by stating that the box of cookies was supporting the cause of Freedom From Hunger (high product-cause fit) or The Nuclear Age Peace Foundation (low product-cause fit). Donation quantifier was manipulated by stating that either \$1 (exact) of the sales price (\$10) or a portion (vague) of the sales price (\$10) would go to the cause. Subsequently, measures for purchase intention were obtained. Finally, respondents answered the manipulation check questions.

All our manipulations were perceived as expected. H1 was supported by a significant main effect ($F_{(1, 135)} = 29.50, p < .001$) and subsequent means analysis ($MEAN_{HIGH\ FIT} = 4.81; MEAN_{LOW\ FIT} = 3.56$). H2 was also similarly supported ($F_{(1, 135)} = 6.75, p < .01; MEAN_{EXACT\ QUANTIFIER} = 4.48, MEAN_{VAGUE\ QUANTIFIER} = 3.89$).

For H3 the ANOVA yielded a significant interaction ($F_{(1, 135)} = 4.82, p < .05$). However for high product-cause fit, there was no difference in purchase intentions, regardless of the specificity of donation quantifier. For low product cause fit, purchase intentions were greater when the donation quantifier was exact ($MEAN = 4.39$) versus when it was vague ($MEAN = 2.89, t_{(70)} = -3.64, p < .001$). Hence, H3 was partially supported.

Results did not support H4 (i). H4 (ii) was supported by a significant interaction ($F_{(1, 135)} = 9.18, p < .01$) and subsequent means analyses (PLANNED PURCHASE: $MEAN_{EXACT\ QUANTIFIER} = 5.74$; $MEAN_{VAGUE\ QUANTIFIER} = 4.91, t_{(69)} = -2.28, p < .05$); (IMPULSE PURCHASE: $MEAN_{EXACT\ QUANTIFIER} = 2.97$; $MEAN_{VAGUE\ QUANTIFIER} = 3.23; t_{(70)} = .23, p > .05$).

Interesting findings arise when examining product-cause fit and donation quantifier jointly and the influence of planned versus impulse purchase. Product-cause fit (versus a donation quantifier) is probably more diagnostic in terms of the attractiveness of a cause-related offer. The same probable diagnosticity perhaps precluded a difference in purchase intentions regardless of purchase type. For a planned purchase, an exact donation quantifier resulted in greater purchase intentions thereby emphasizing the need to be exact in terms of the amount donated. Hence, it could be that cause-related purchases are made more impulsively thereby explaining the prevalence of vague quantifiers.

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Doing Well by Doing Good: The Benevolent Halo of Social Goodwill

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The idea that companies that do good will also do well is often used to encourage firms to engage in socially responsible behavior. From the recent surge in “green” initiatives to charitable donations, it is now commonplace for companies to participate in such activities and to communicate this to consumers. While the benefits to society are clear, the benefits to the firms are less transparent. This is not for lack of effort, however. The link between a firm’s social goodwill and its financial performance has been the focus of much research, but a definitive link has eluded scholars. This has led firms to largely treat these activities as write-offs that will, at best, create some goodwill among customers. But is this truly the extent of the benefit?

In the current research, we take a novel approach to relating a firm’s socially responsible behavior to its market performance. In addition to creating a positive disposition toward the company, we argue that socially responsible behavior often has a direct impact on consumers’ evaluations of a product’s performance. Specifically, we argue that the impact of a company’s socially responsible activities is a function of how closely related the activities are to the product’s performance attributes. We show that when the company’s socially responsible activities occur in a domain unrelated to the product’s attributes, consumers often believe that the company’s products are likely to perform better than products from companies not engaged in such activities. For example, we show that consumers, particularly wine novices, tend to believe that wine produced by a company donating to charity tastes better than wine from a company that does not. However, when the social goodwill is closely related to the product’s attributes, socially responsible activities will have the opposite effect, hurting rather than helping the perceived performance of the company’s products. For example, we show that consumers believe that an environmentally friendly product will perform worse than a product that is not environmentally friendly, whereas a product produced by a firm that donates money to environmental charities will perform better than a product produced by firms that do not. In this context, we show that the impact of a firm’s social goodwill extends beyond customers’ goodwill toward the company to customers’ perceptions about the performance of a company’s products, and that this is a function of how closely related the social goodwill is to the product’s attributes. We attribute this effect to the consumers’ use of a halo-based inferential reasoning process when drawing product-attribute inferences based on irrelevant information when the social

goodwill is far removed from the product's attributes, whereas social goodwill that is closely related to the product's attributes is more likely to result in compensatory reasoning. This proposition is examined in a series of four experiments.

Our first experiment documents the transfer of goodwill to conceptions of product performance. Respondents were presented with a description of a company that either indicated or did not indicate that the firm donated to charities. Subsequently, they were asked to estimate how well one of the firm's products was likely to perform on a particular attribute. Specifically, subjects were asked to estimate how many calories were in a hamburger, a measure of healthiness. Our results show that when subjects were aware that the restaurant donated money to children's charities, they estimated the same hamburger to be healthier (i.e., to have fewer calories) than when they were unaware of the firm's social goodwill.

Building on the findings of the first experiment, our second study examined this effect with consumers who were actually able to consume the product. In an actual taste test, we provided respondents with a sample of wine along with a card that purportedly described the winery that produced it. Across conditions, the only difference in the description was the addition of one sentence in the social goodwill condition, informing participants that the winery donates a portion of its revenues to the American Heart Association. The results show that individuals believed the same wine to taste better when they were told that the winery was engaged in socially responsible activities. However, after controlling for wine expertise, we find that the effect was only evident for novices; there was no difference in taste ratings for wine experts.

Our third experiment sought to demonstrate that the direction of social goodwill's impact on product performance evaluations is a function of how closely related the goodwill is to the product's attributes. Respondents were informed that a company was releasing a new product. Individuals in the unrelated condition were told that the firm donated a portion of its revenues to environmental charities, whereas individuals in the related condition were told that the firm developed this new product to be environmentally friendly. Respondents in the control condition were given no information about the firm's socially responsible activities. Following this, respondents provided estimates of the product's performance. The data revealed that individuals in the unrelated condition estimated that the socially responsible firm's product would perform better than did individuals in the control group. In contrast, individuals in the related condition showed the opposite effect, estimating that the socially responsible firm's product would perform worse than did individuals in the control group. These results show that the impact of a firm's socially responsible behavior is a function of how closely related the social goodwill is to the product's attributes.

The goal of the fourth experiment was to document that subjects' level of abstraction moderates the halo effect observed in the first two studies. In this study, individuals were put into either an abstract or a concrete mindset and were then presented with a description of a shoe company that either disclosed or did not disclose that the firm engaged in charitable activities. They were asked to rate how comfortable they expected the firm's new shoe to be. The data show that subjects expected the same shoe to be more comfortable when it was from a firm known to engage in acts of social goodwill than when the firm was not known to do this. However, this was qualified by an interaction with level of abstraction, such that only subjects in the abstract mindset condition were influenced by the firm's social goodwill.

The four experiments reported in this research offer converging evidence documenting that a firm's social goodwill can have a direct impact not only on the firm's image but also on consumers' perception of the performance of its products. We attribute these results to the use of a halo-based inferential reasoning process stemming from people's use of high levels of abstraction when drawing product-

attribute inferences based on irrelevant information when the social goodwill is unrelated to the product's attributes. In contrast, we attribute the negative impact of social goodwill when closely related to the product's attributes to the use of compensatory reasoning.

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4.8 Individual Papers: Consumer Communication and Word-of-Mouth

Room: Maple Room C

Chair: Susan Hogan, Emory University

Spreading Word-Of-Mouth when Loving and Hating the Same Object: The Impact of Attitude Ambivalence on Pre- and Post-Failure Word-Of-Mouth

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Imagine you have simultaneously positive and negative thoughts and feelings about the new iPad, a phenomenon that is called (subjective) attitude ambivalence (Kaplan 1972; Otnes et al. 1997). Will you bring up good as well as bad features to others about this product compared to when you are convinced the iPad has no bad features at all (i.e. univalent attitude)? And what happens when your iPad fails? Four studies were set up to investigate the relationship between spreading positive and negative word-of-mouth (WOM), (different types of) attitude ambivalence and product failure.

In study 1, we asked respondents to rate their subjective ambivalence towards a store chain next to indicating positive and negative WOM. Results show that ambivalent people will spread less positive and more negative WOM than univalent ones.

Study 2 tries to refine the results of Study 1 by taking into account different types of attitudinal ambivalence. Subjective ambivalence can be caused by manifest and/or anticipated conflicting reactions. When an individual is aware of the thoughts and the feelings s/he has about a product that are conflicting with the majority of thoughts and feelings the individual has (i.e., with his/her dominant reactions), these conflicting reactions are called *manifest conflicting reactions* (Priester et al. 2007). When an individual has few or no deliberate conflicting reactions, s/he can still recognize that conflicting information might exist of which s/he is at present unaware. These conflicting reactions are called *anticipated conflicting reactions* (Priester et al. 2007). We distinguish two different types of attitudinal ambivalence based on the type of conflicting reactions underlying the subjective ambivalence. We define *manifest ambivalence* as the ambivalence that is mainly fed by conflicting reactions of which one is aware. When people are unaware of any conflicting reactions, but anticipate that such reactions exist, individuals experience *anticipated ambivalence*.

To investigate the relationship between the two types of ambivalence and WOM, we manipulated the type of conflicting reactions that cause subjective ambivalence. To this end, we varied the amount of positive and negative attributes respondents received about an MP3-player in a similar way as in Priester et al. (2007), and varied the opinion of one's best friend. Again, we find that positive (negative) WOM corresponds positively (negatively) with respondents' initial attitude, as the latter is more favorable for anticipated

ambivalent people compared to manifest ambivalent ones. Results indicate that anticipated ambivalent respondents, despite having the same ambivalence level as manifest ambivalent respondents, engage in more positive and less negative WOM than manifest ambivalent people. The fact that they only anticipate instead of know their conflicting reactions, could explain why they are less inclined to share those negative thoughts with other people. Although the WOM of anticipated ambivalent individuals is more positive than the one of manifest ambivalent individuals, their WOM varies depending on the valence of their dominant reactions. If positives (negatives) are dominant, more (less) positive WOM and less negative (positive) WOM will be spread. In contrast, manifest ambivalent people generally spread more negative than positive WOM. Possibly negative features weigh only more heavily than positive ones, if one is aware of the negative features and not when one anticipates negative features.

Now further imagine that you are ambivalent towards the iPad while one of your friends is convinced it possesses only good features (i.e., univalent attitude). One day, the product breaks down. Will your reactions to this failure differ in terms of the WOM you spread? Past research has shown that a failure leads customers to spread less positive and more negative WOM (e.g., Richins, 1983, Von Wangenheim, 2005). In Studies 3 and 4, we investigate the moderating role of attitude ambivalence for the relationship between a product failure and WOM. Previous studies indicate that customers who have a high relationship quality towards a service provider may feel more betrayed when failures occur than customers with low relationship quality. Subsequently, they take more negative actions than customers who have a low relationship quality with a service provider. This is known as the love-becomes-hate effect (Grégoire and Fisher, 2008; Grégoire et al. 2009). If we translate these findings to our research context, they suggest that ambivalent and univalent customers might differ in their reactions to failures. Due to the fact that ambivalent customers know there are both positive and negative features associated with a product (Priester and Petty, 1996), they may be prepared for the fact that a failure once might happen to them. In contrast, univalent customers believe that a product only possesses good features (Priester and Petty, 1996). If a failure does occur, they can be expected to react more intensely because this failure was totally unexpected.

In study 3, we measured consumers' subjective ambivalence towards their MP3-player and next presented a scenario with or without failure (between-subjects design). Results show that following a failure, univalent customers' positive WOM drops significantly, while their negative WOM regarding the product increases. For ambivalent customers, the impact of a product failure is less strong. Our results therefore delineate that customers' reactions to a product failure clearly differ depending on the level of ambivalence they have towards the product.

In study 4, we conducted a repeated measures experiment to investigate the moderating role of different types of conflicting reactions underlying subjective ambivalence (anticipated versus manifest ambivalence) on the relationship between a product failure and WOM. We replicate the findings of Study 3 and extend them by indicating that the WOM of univalent and anticipated ambivalent respondents is more strongly influenced by failures compared to the WOM of manifest ambivalent respondents. When anticipated ambivalent individuals are confronted with a failure their negative WOM increases and positive WOM drops tremendously compared to manifest ambivalent people. Interestingly, although anticipated ambivalent customers are ambivalent, they seem to react as univalent customers when experiencing a failure.

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"To Talk or Not to Talk": The Internal Dilemma of Early Adopters as a Function of Their Need to Be Unique

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Early adopters are frequently discussed in the literature as individuals who play an essential role in new product success (Rogers 1995). Early adopters are the first to adopt an innovation, and are therefore the first to recommend it to main market consumers. The literature (and practice) consequently treats early adopters as "social salespeople" of new products (Goldsmith and Flynn 1992; Mahajan, Muller, and Srivastava 1990; Midgley and Dowling 1993; Rogers 1995). This, however, may not always be the case. In this research we explore the unwillingness of early adopters to "spread the word" about innovations they adopt. Specifically, we propose that early adopters often face an internal dilemma of "to talk or not to talk". While they are inherently motivated to communicate information about the innovation to others, and reinforce their social status as early adopters, they are aware that this status is diluted as the number of adopters increases. To remain among a select few who use or possess the innovation, they may intentionally *not* encourage others to adopt it.

The current research reveals the underlying mechanism that drives this internal dilemma among the early adopters. This mechanism is a product of consumers' need for uniqueness (CNFU); namely, a positive need to be different relative to other people (Tepper and Hoyle, 1996; Tian, Bearden and Hunter, 2001). The CNFU motivation is strongly tied to the adoption of unusual and scarce products (versus ones that are commonly used), especially unique products that are visible to others (Tian et al., 2001). By definition, innovations are scarce, since it is possessed by few or none in its early stages in the market. Therefore, we claim that this dilemma is experienced by early adopters who are driven by elevated CNFU and thus value the uniqueness of the innovation as one of its most beneficial utilities. One of the basic foundations of the CNFU is to position the individual as distinct from the group (Tian et al., 2001). Early adopters with high CNFU will therefore need to express their uniqueness in the presence of a group. However, by "showing off" their new adoption, early adopters increase the risk that other consumers will adopt the innovation, thereby diminishing early adopters' uniqueness. On the other hand, early adopters with low CNFU, or those who possess high CNFU but are not innovative, may experience this inner dilemma to a lesser extent, if at all.

The first study demonstrates the existence of the internal dilemma across product categories. Specifically, a survey of 249 participants revealed a significant two-way interaction between early adoption tendency and dispositional CNFU levels on the internal dilemma ($F(1,233) = 6.21, p = .01$). This interaction was evident, independent of product category (fashion, grocery food and high technology products). Thus, early adopters with high CNFU experienced the dilemma of "to talk or not to talk" to greater degree ($M = 1.78$) than did other consumer groups: (a) early adopters with low CNFU ($M = 1.10; t(126) = 4.56, p < .01$); (b) main market consumers with high CNFU ($M = 1.05; t(120) = 4.59, p < .01$), and; (c) main market consumers with low CNFU ($M = 1.02; t(159) = 6.69, p < .01$).

The second study, replicated the findings of the first study, when CNFU levels were primed ($F(1,134) = 4.31, p < .05$). Early adopters who were primed to be high CNFU consumers reported greater dilemma levels ($M = 2.18$) than all other consumer groups: (a) early adopters in the low CNFU condition ($M = 1.19; t(59) = 4.74, p < .01$); (b) main market consumers in the high CNFU condition ($M = 1.59; t(68) = 2.39, p < .02$), and; (c) main market consumers in the low CNFU condition ($M = 1.1; t(71) = 5.80, p < .01$).

Finally, the third study identified a possible boundary condition for the dilemma. This study demonstrated that the dilemma would be experienced only when the innovation faces an immediate public launch, and is not experienced for innovations whose launch is expected to be in the future. When the innovation is not anticipated to be available on the market in the near future, high CNFU early adopters are less likely to be concerned that others will imitate them, and are therefore less likely to experience the dilemma. An experimental design among 149 participants revealed a significant three-way interaction ($F(1, 141) = 4.27, p < .05$) between early adoption levels, CNFU levels and immediate innovation availability, on the internal dilemma. In an immediate launch condition, results of the first and second study were replicated. That is, early adopters with high CNFU experienced the dilemma to a greater extent ($M = 2.95$) compared with all other consumer groups: (a) early adopter with low CNFU ($M = 1.61; t(32) = 2.45, p < .02$); (b) main market consumers with high CNFU ($M = 1.75; t(31) = 2.12, p < .05$), and; (c) main market consumers with low CNFU ($M = 1.44; t(45) = 3.93, p < .01$). However, in the future launch condition, there was not a significant difference within the levels of internal dilemma across conditions.

Future research is needed to explore the consequences of the dilemma and possible ways of resolving it.

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From “News-worthy” to “Conversation-worthy”: Viral Characteristics of Text-based Online Content

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News is ubiquitous – humans have a strong desire to consume news about a variety of issues from world events, to celebrity mishaps to intimate details about our friends’ lives (Shoemaker 1996). While word-of-mouth communication (WOM) is typically thought of in terms of talk between individuals about brands, companies, or advertising, we can think about WOM in terms of any kind of interpersonal communication between individuals such as the spreading of rumors, hearsay, and news. Today, an individual can easily share personal thoughts, opinions, an interesting video or story with other Internet users by simply clicking on a link (Dellarocas 2003). In this paper we conceptualize the sharing of online information as a general communication behavior – one that transcends the commercial aspect of WOM and as such we refer to the forwarding of any type of information online as viral communication (e-WOM).

Given our conceptualization of e-WOM, we used an exchange theory model of interpersonal communication (Gatignon & Roberston, 1986) to frame our research. In addition to proposing explanations why individuals share information, the theory also identifies a number of factors that enhance the influence of interpersonal communication such as source credibility, source attractiveness, clarity of the message, and valence of information. We drew on related research from the communication, marketing, and psychology literatures to identify appropriate measures of each factor proposed in the theory. To test the hypothesized viral characteristics of text-based online news stories, we archived the online news stories, which were published on Yahoo! News website from June 11 to July 22, 2007. We conducted a content analysis to identify the potential viral characteristics of each individual news story and then related these characteristics to the number of times the story being forwarded. There are three points to note, regarding our research design.

First, in terms of data coverage according to a recent report, Yahoo! News dominates the list of online new sources frequented by consumers (Kohut et al. 2008). As such, we believe the news stories published on Yahoo! News constitutes a good representation of online news viewed and forwarded by Internet users in North America. Second, to avoid sample selection bias, we expanded our

sampling frame to include two additional lists of news stories, namely the Top News and the Most Viewed News. By including these two types of news stories, our sample then contains plenty of news stories being available and/or viewed but not necessarily being forwarded, thereby eliminating any potential sample selection bias. After removing duplications, there are 2,261 unique news stories in our six-week sample.

While expanding the sample to include Top News and Most Viewed News would avoid any potential sample bias, it introduces another issue to our statistical analysis: there are now a substantial number of observations (i.e. new stories), of which the dependent variable is equal to zero (i.e. never being forwarded). In other words, the distribution of the dependent variable across the whole sample is now truncated at zero. Such truncation makes standard regression models inappropriate and we thus need to adopt a Tobit model (e.g., Amemiya, 1985):

The observed number of times news story i being forwarded,

$$Y_i = \begin{cases} Y_i^* & \text{if } Y_i^* > 0 \\ 0 & \text{if } Y_i^* \leq 0 \end{cases}$$

where Y_i^* is a latent variable such that $Y_i^* = X_i\beta + \varepsilon_i$

X_i is a vector of variables corresponding to the hypothesized viral characteristics of news story i . By assuming ε_i to be independently and identically distributed as $N(0, \sigma^2)$, we can then estimate β , the vector of coefficients associated with X_i , by maximum likelihood method.

The key features of viral news stories that were identified by our Tobit analysis are: light-hearted tone, credibility, relevance, strong positive associations (e.g. stories featuring babies), and clarity (length of story) which support the exchange theory model. Since exchange theory proposes that individuals engage in social exchanges either to be noticed or reciprocated, our findings suggest that the forwarding of news stories with these characteristics are socially rewarding to the sender. Furthermore, if we make the assumption the forwarding of a news story has allowed that sender to either initiate a conversation or take part in an ongoing conversation, then this act should follow conversational norms. To test this premise we examined the pattern of our results in relation to Grice's (1975) conversational norm framework.

Our finding that length of story is significantly related to pass along rates meets the Maxim of Manner (be as clear as possible). According to the Maxim of Relation, speakers should include statements that are either relevant to the conversational topic or relevant to the partner in the dialogue (Grice 1975). The primary measure of personal relevance coded in our analysis was the location of the news story – our finding that U.S. based stories was associated with greater forwarding behavior supports this premise. According to the Maxim of Quality, a speaker should not say anything believed to be false or for which adequate evidence is lacking which suggests that people forwarding news stories may be especially sensitive to the credibility of the information presented in a news story. Our finding that stories featuring highly credible sources were associated with higher levels of forwarding behavior provides support for this maxim seems to be operating with viral communication.

This research is important for a number of reasons. First, our data did not support a number of viral characteristics that have been identified as key in previous research. For example, the majority of anecdotal evidence suggests that we have an obsession with celebrity and gossip, yet we find no support for this premise. Second we find that not all top read news stories are equally viral – therefore it is not just enough to break through the clutter and attract the attention of the reader, it is important to provide the reader

with compelling reason to forward the story. Finally, given our conceptualization of e-WOM, we believe it was important to not only identify the viral components of the message itself, but to also shed insight into the communication process itself.

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Beyond Doubt: Communication Matters in Establishing Customer-Company Identification

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Research has shown that the way in which management expresses the company's identity to their customers has consequences on company attractiveness (e.g., Bhattacharya & Sen, 2003). Company attractiveness is determined by customer knowledge (e.g., Alba & Hutchinson, 2000) and influences customer satisfaction (e.g., McAlexander, Kim, & Roberts, 2003), identification with (e.g., Ahearne, Bhattacharya, & Gruen, 2005), loyalty towards (e.g., Bergami & Bagozzi, 2000), and financial performance of the company (e.g., Homburg, Wieseke, & Hoyer, 2009). While the field of research on identification is well settled, further research is needed on investigating the influence of different communication activities on customer-company identification. This paper examines communication as a driver of customer-company identification while drawing on social identity theory (e.g., Tajfel & Turner 1985). We discuss the relative importance of different communication instruments and their relationship with company success variables, such as money spent. In addition, consequences of the results for the management of customer-company identification are discussed. More specifically, the paper examines if different communication activities (i.e., written, face-to-face, and nonverbal) influence the degree to which a customer identifies with a company. Finally, we propose that loyal customers have a higher willingness to spend money. Therefore, customer loyalty should be directly linked to both perceived and actual money spent.

To test the proposed linkages of the model, a quantitative study in the service context (i.e., hospitality industry) was conducted. Data were collected from customers (i.e., subjective data) as well as from hotel management (i.e., objective data) during the winter season 2009/10. Structural equation modeling (SEM) is used to empirically test the proposed relationships. Reliability and validity of the reflective measurement models is assessed by means of global and local goodness of fit indices. The SEM is established without any restrictions and all global fits are satisfactory: $SB-\chi^2=511.79$, $df=196$, $RMSEA=.074$, $CFI=.939$, $TLI=.929$, $SRMR=.067$ (Baumgartner & Homburg, 1996). Tests of discriminant validity of the constructs are performed using the tests recommended by Fornell and Larcker (1981). All values meet the thresholds discussed in relevant literature (Hu & Bentler, 1999).

The results show strong support for the communication path. A significant effect of communication on knowledge ($\beta=.55$, $p<.001$) as well as on company attractiveness ($\beta=.48$, $p<.001$) is found. Furthermore, satisfaction is strongly related to communication ($\beta=.41$, $p<.001$). Company attractiveness is positively influenced by customer knowledge ($\beta=.43$, $p<.001$) and customer satisfaction is positively influenced by company attractiveness ($\beta=.54$, $p<.001$). Results indicate that knowledge, attractiveness, and satisfaction are significantly related to identification. More specifically, identification is positively affected by customer knowledge ($\beta=.42$, $p<.001$), by company attractiveness ($\beta=.43$, $p<.001$), and by customer satisfaction ($\beta=.21$, $p<.001$). In accordance with H₅, loyalty is positively influenced by identification ($\beta=.61$, $p<.001$). Results also show a significant effect of satisfaction on loyalty ($\beta=.37$, $p<.001$). Strong evidence is found ($\beta=.40$, $p<.001$) for the influence of loyalty on money spent. Thus, the model supports all hypotheses proposed. Overall, the model provides a very good explanation for identification ($R^2=.79$) and loyalty ($R^2=.84$), and an adequate explanation for money spent ($R^2=.13$).

To conclude, this study shows that communication positively influences customer identification with the company which leads to more loyalty (both attitudinal and behavioral) towards the company. The study, however, also reveals that written communication plays only a minor role in driving these company success measures. Management should thus focus on improving their service personnel's' face-to-face and nonverbal communication skills. Although this study makes important contributions to the understanding of communication and customer-company identification, it entails several limitations. These should be addressed in further research.

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Working Papers: Working Paper Session 2

1. Tense and Energetic Arousal Routes to Consumer Pleasure

Xiaomeng Fan, Purdue University, USA*

Duane Wegener, Ohio State University, USA

En-Chung Chang, Renmin University of China, China

Richard Feinberg, Purdue University, USA

This research aims to validate the existence of two arousal routes to consumer pleasure. Based on a theoretical framework that combines Thayer's (1978) two-dimensional arousal model, reversal theory and appraisal theories, we propose that tense arousal and energetic arousal can have independent effects on pleasure, and that activation for each arousal route depends on consumer motivation. Results of a pretest in a vacation resort setting confirmed our predictions that a tense arousal route to pleasure works to the extent that people are predominantly telic in orientation, whereas an energetic arousal route works to the extent that people are predominantly paratelic in orientation.

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2. Paradoxical Discourse and Cultural Capital in Fashion Blogging

Jessica Miller, University of Saskatchewan, Canada*

Barbara J. Phillips, University of Saskatchewan, Canada*

Edward F. McQuarrie, Santa Clara University, USA

All we think we know about blogging is false. We use an analysis of the top fashion blogs to show that bloggers have a clear public motivation for blogging: the building of cultural capital, not the building of community. We demonstrate that fashion bloggers engage in a system of practices, embedded in the digital virtual space, that embody paradoxical stances; these stances lead to positive outcomes for the blogger. In addition, we believe that fashion bloggers have no concern with resistance to the market; on the contrary, they embrace marketing practices without fear of backlash from their followers.

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3. *For Self, Fun, or Fear? Why People Attach Themselves to Brands*

Michael Proksch, Christian-Albrechts-University Kiel, Germany*

Ulrich Orth, Christian-Albrechts-University Kiel, Germany

Expanding the comparatively under-investigated field of attachment motivation, this research draws on self-expansion theory to explain consumer attachments to brands. Across a selection of product and service categories two experiments provide converging evidence that consumers attach themselves to brands that support their self-competence. While this effect occurs under conditions of both intrinsic and extrinsic motivation it is more (less) pronounced when initial levels of self-competence are low (high). Examining the process mechanism in more detail indicates that self-competence support increases attachments through an expansion of the self-concept (a cognitive route), but even more so by increasing anticipated joy (approach) and reducing anxiety (avoidance).

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4. *Compulsive Buyers, Shame-Proneness, and the Use Of Avoidant Coping Following Buying Lapses*

Sunghwan Yi, University of Guelph, Canada*

Based on escape theory (Heatherton & Baumeister, 1991), Faber (2004) posited the need to escape from painful self-awareness as an important trigger of compulsive buying. I propose the possibility that frequent experience of painful self-awareness may be particularly strong in individuals with strong shame-proneness, whereas this experience is mitigated by strong guilt-proneness. In this paper, I test the hypothesis that compulsive buyers are more shame-prone and less guilt-prone than non-compulsive buyers. Further, I investigate the possibility that the frequent use of avoidant coping strategies following buying lapses is positively associated with the index of compulsive buying as well as shame-proneness.

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5. *Tailoring Pro-Environmental Consumer Appeals to Individual Differences in Narcissism: Can We Optimize Persuasiveness?*

John L. Christensen, University of Southern California, USA* Ka Yi Lai, University of Southern California, USA

Amanda Bruen, University of Southern California, USA Hannah Ozer, University of Southern California, USA

Edwin Kwak, University of Southern California, USA

This experiment investigated whether the persuasiveness of a pro-environmental consumer advertisement could be optimized by framing it to be congruent with individual differences in narcissism (i.e., emphasizing benefits to the self vs. the environment). Subjects (N=80) responded to a measure of narcissism before being randomly assigned to 1 of 2 message conditions in a 2 (narcissism: low, high) x 2 (message: self-relevant, environment-relevant) design. Narcissism was positively associated with ad attitudes when self-relevant benefits were made salient but negatively associated when environmental benefits were emphasized. A similar “congruency effect” emerged when predicting price willing to pay.

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6. *When Doing Good Tastes Better: The Influence of Cause Related Marketing on Consumption Experience*

Morgan Poor, Indiana University*

Yuna Kim, Kelley School of Business, Indiana University, Doctoral Student

Previous research has shown that cause-related marketing (CRM) could influence both consumer decision-making and willingness to pay. We extend this research by examining the effect that CRM has on actual consumption experience and evaluation. In three studies, we show that individuals enjoy hedonic experiences more when they are tied to a cause, and that this effect is mediated by a reduction in guilt associated with consumption. We also introduce brand equity as a moderating variable. This research has important implications for marketers, suggesting that the influence of CRM extends beyond initial purchase and may actually color the consumption experience.

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7. *I'll Show You Mine, If You Show Me Yours: Public Policy Implications of Adolescent Sexting*

Robin Soster, University of South Carolina, USA*

Jenna Drenten, University of Georgia, USA

Sexting, or sending sexual content via mobile phones, is rising for adolescents. Policy makers have only recently begun to address this phenomenon. Considering that adolescents are a vulnerable consumer group, this research attempts to 1) gain a better understanding of the sexting phenomenon, 2) discuss the implications of sexting for adolescent consumers, and 3) outline public policy implications associated with sexting. The authors present exploratory findings that reveal insights about the characteristics, motivations, and consequences of sexting in addition to laying the foundation for a multi-method research program. Findings provide public policy considerations as well as opportunities for future research.

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8. *The Dove Effect: How the Normalization of Obesity Can Influence Food Consumption*

Lily Lin, University of British Columbia, Canada*

Brent McFerran, University of Michigan, USA

In recent years, marketers have increased the usage of overweight models in their campaigns in an effort to change people's perceptions of what an average size person should look like. Although the promotion of a healthy body image is important, the current research examined the negative consequences that could result from normalizing obesity. In two studies, we altered people's perceptions of plus versus average body size, and found that normalizing obesity led to greater consumption of an unhealthy food item, resulted in the creation of meals with higher calories, and lowered one's motivation to engage in a healthier lifestyle.

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9. *Traditional vs. Electronic Professional Service Delivery: Examining the Impact of Delivery Mode, Customer Interaction and Self-Efficacy on Consumers' Evaluation of Service Quality*

Rebeca Perren, University of Central Florida, USA*

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Ronald Michaels, University of Central Florida, USA

Marketing researchers agree that service quality is vital to organizational success. Still, although many scholars examine perceptions of service quality of either a traditional (face-to-face) or electronic environments, what remains to be discussed is how service quality evaluations may differ across delivery modes, especially for professional services. This study addresses such a gap in extant knowledge by investigating the effects of delivery mode on overall perceptions of service quality; further, self-efficacy and level of interaction (with the service provider and other customers) are investigated as moderating variables that influence the relationship between the delivery mode and perceptions of service quality.

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10. *When I Think of the Brand, I am Happy: The Relationship between Feelings of Attachment and Brand Happiness*

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Aeran Koh, Yonsei University, Korea

We define brand happiness as feelings of happiness and satisfaction about life or self when consumers buy, have, or think about brands. This study investigates the relationship between feelings of attachment to brands and brand happiness. Structural equation modeling was used to address how consumers' feelings of attachment to brands fit with brand happiness. The proposed model showed that each path was positive and significant, suggesting that each factor of feelings of attachment contributed to brand happiness. Results imply that brands can make consumers happy, and are related to consumers' lives and happiness as positive emotional objects.

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11. *Beyond Valence: Motivational Orientations and Mixed Emotions*

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Hao Shen, Chinese University of Hong Kong, China

Anirban Mukhopadhyay, HKUST, China

Extant research suggests that advertisements that simultaneously elicit positive and negative emotions cause consumers to feel conflicted, and thereby affect attitudes adversely (William and Aaker, 2002). We propose that the effect of mixed emotions depends on their associated motivational orientations. When the mixed emotions have opposing motivational orientations (e.g., happiness and anxiety, or calmness and sadness), people feel more comfortable and evaluate the mixed appeal more favorably as compared to when the mixed emotions have the same motivational orientation.

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12. *The Effect of Product Experience, Motives, and Product Type on Consumers' Where to Post Decisions*

Yu-Jen Chen, University of Maryland, USA*

Amna Kirmani, University of Maryland, USA

We examine online consumer behavior in terms of how posters decide where to post their product experience. We demonstrate that consumption experience (positive vs. negative), posting motive (influence vs. affiliation), and product type (hedonic vs. utilitarian) will affect such decision. Specifically, when posters' salient motivation is being influential (e.g., persuasion), they would prefer posting their positive consumption experience on a website crowded with heterogeneous consumers (e.g., product category forum) but prefer posting their negative experience on a website crowded with homogeneous consumers (e.g., brand forum). However, such relationship will be moderated by poster motivation as well as by product type.

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13. *My Brand is Different from Your Brand-Individual Difference and Brand Personality*

Jenny Jiao, University of Iowa, USA*

Irwin Levin, University of Iowa

This paper examines the exciting and sincere dimensions of brand personality and individual differences which prior work on consumer-brand relationship has overlooked. It suggests that while consumers are sensitive to different kinds of brand personalities, not all consumers are equally sensitive to the same brand personalities. Independent individuals have a strong connection with exciting brands, while interdependent individuals have a strong connection with sincere brands. This research provides insights on consumer-brand relationship by providing better understanding of the individual difference and brand personality.

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14. *Does Sharing Negative Consumption-Related Emotions Help or Hurt Satisfaction?*

Inés López, University of Murcia, Spain*

Salvador Ruiz, University of Murcia, Spain

Luk Warlop, KULeuven

Although consumption experiences may not be considered as disruptive or highly intense, consumers do share those episodes with other people. Thus, they present a strong tendency to communicate with others about negative consumption events they went through. This sharing process may change the evaluation of the experience. In a set of three studies, we analyze the social sharing of consumption-related emotions. Experiment 1 reveals the existence of the phenomenon. Experiment 2 focuses on the sharing of specific negative emotions as well as the identification of the best addressee. Experiment 3 proves that implicit goals for sharing drive the results.

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15. *Catharsis: An Alternative for High-Level Service Recovery Strategies*

Inés López, University of Murcia, Spain

Salvador Ruiz, University of Murcia, Spain*

Luk Warlop, KULeuven, Bel

After a failure, some consumers pursue strategies to punish firms, such as insulting frontline employees, engaging in negative word-of-mouth, and creating weblogs. By telling others about their bad experiences, customers can encourage others to avoid patronizing the firm. In this paper, we specifically look at the effectiveness of service recovery strategies depending on the way consumers can share with other people what happened. We show that catharsis reduces consumers' dissatisfaction and propose that the personal character of apology underlies the bolstering effect.

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16. *Friends Who Tell Stories: The Liability of Positive Word of Mouth in Impacting Consumer Choice of Hedonic Experiences*

Kendra Hart, University of Western Ontario, Canada*

Miranda Goode, University of Western Ontario, Canada

Matthew Thomson, University of Western Ontario, Canada

People often engage in storytelling as a way to savor prior hedonic experiences, such as vacations or other special events. The current research investigates how positive post-consumption storytelling, a common form of word-of-mouth, can negatively affect others who are in the pre-consumption stage of a similar hedonic experience. Specifically, we provide evidence that this type of positive WOM leads to greater demystification of how a desired consumption experience will unfold, and a surprising contamination and dampening of a consumer's willingness to try a once desirable experience. We refer to this phenomenon as conceptual contamination.

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17. *Parents' Obsession with Children's Education Expenditure: the Impact of Self-Construal and Failure*

Lingjiang Tu, University of Texas at San Antonio, USA*

Yinlong Zhang, University of Texas at San Antonio, USA

A 2x2 factorial experiment investigated the impact of self-construal and failure on people's education expenditure decisions for children. The results supported a marginally significant interaction effect. The independents reported spending more on children's education in failure salient condition than in failure non-salient condition, whereas the interdependents' budget for children's education was not affected by failure salience. Analyses ruled out potential influences such as regulatory focus, situational affect, age, gender, ethnicity and number of children.

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18. *Charities & Service Failures: When Good + Good = Bad*

Mark Mulder, Washington State University, USA*

Jeff Joireman, Washington State University, USA

Within charitable organizations, a fast growing model is the Peer-to-Peer (P2P) model, in which charities allow donors to fund a specific project or a specific recipient. Answering calls for transformative services research by integrating service failure literature into the charity domain, we find that good intentions by a donor, combined with good intentions by a charity, can generate negative outcomes. Our research shows that any change from what the donor intended is viewed as a service failure, significantly reducing positive donor attitudes and the likelihood of future donations to the P2P charity.

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19. *The Effects of Negative Labeling on Prosocial Behavior*

Zoe Rogers, Baruch College, CUNY USA*

Pragya Mathur, Baruch College, CUNY USA

This study examined the effects of negative labeling on giving intentions to a non-profit in response to charity appeals that focus on self- or other-benefits. After being labeled as “not generous,” those who viewed the other-benefit (vs. self-) appeal had higher giving intentions. For those in the low-relevance condition, the other- (vs. self-) benefit appeal led to higher giving intentions. We attribute these results to individuals’ attempts to restore confidence in a threatened self-view and attempts to adhere to society’s altruistic helping norm. The results of this study contribute to the persuasion literature and have implications for organizations’ marketing strategies.

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20. *Narcissists as Consumers: How Purchases of Scarce Products Validate An Excessively Positive Self-View*

Seung-Yun Lee, McGill University, Canada*

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The three studies included in this paper examine how narcissistic consumers evaluate the purchase of scarce products. We show that such narcissistic consumers are motivated to validate their excessively positive self-view by obtaining a scarce product which imparts unique value. Our findings indicate that narcissistic people tend to interpret the scarcity-related purchase situation as an opportunity to validate their excessively positive self-view, and hence are less motivated to make systematic information processing toward other diagnostic information.

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21. *Attribution of Service Failure: The Effect of Locus of Control on Customer Satisfaction and Switching Intention*

Inge Brechan, Institute of Transport Economics, Norway*

Even Johan Lanseng, Norwegian School of Management, Norway

A test of Weiner’s attribution model failed to find the proposed effects of locus of control on satisfaction and switching intentions after a service failure. There was no effect on satisfaction and a reverse effect of locus on switching. Participants were more likely to switch service providers if they had participated in the service production. The effect of satisfaction on switching was large and significantly larger in the low participation/high control and high participation/low control situations compared to the low participation/low control and high participation/high control situations. Results can be explained by the actor-observer effect and threat to a positive self-view.

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22. *Investigating the Halo of Perceived Value in Consumption-Systems: Negative Experiences Loom Larger*

Alexander Zauner, WU Vienna, Austria *

Monika Koller, WU Vienna, Austria*

Arne Floh, WU Vienna, Austria

Inseparability of the subsystems determines the existence of a consumption-system comprising products and services. For proper usage of a consumption-system, the frictionless interplay of both subsystems is a necessity. The present experimental study provides evidence for a halo effect from products to services in terms of value perceptions and loyalty intentions. Accounting for multiple value dimensions and high versus low value conditions, the present study represents a realistic setting of potential critical incidents in the consumption-system of mobile telecommunication from a consumer perspective.

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23. *Market Psychoanalysis*

Shiv Vasisht, Independent Scholar*

No other modern-day thinker has contributed as much to the understanding of human behavior as Sigmund Freud. Yet we have barely touched upon his thinking when it comes to understanding consumer motivations. Rather than analyze markets on the basis of demographic or “psychographic” profiles, what would be the outcome if we chose the Freudian concepts of the id, ego and the superego as the basis of human motivation, and the implications if products be mapped against these three ego states? This paper presents a hypothesis that might be verified by any study that has research inputs from across cultural boundaries, and the guidance of an experienced Freudian psychologist, given that it attempts at understanding consumer behavior from concepts fundamental to all human volition, including the will to purchase.

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24. *Socially Responsible Consumption: I Like It, I Dislike It, I Care, I Don't Care? Am I Ambivalent? Some Responses from Direct and Indirect Attitude Measurement*

Jean-Mathieu Fallu, HEC Montreal, Canada*

Alain d'Astous, HEC Montreal, Canada

In this research, it is proposed that the 'attitude-behavior gap' often alluded to in the literature on socially responsible consumption (SRC) may result from consumers' attitudinal ambivalence toward SRC. The research is based on Petty's (2006) meta-cognitive model (MCM) of attitude. It addresses three main objectives: 1) measuring consumers' ambivalence toward SRC using direct (explicit) measures of ambivalence, 2) measuring consumers' potential for ambivalence toward SRC using indirect (implicit) measures of attitude, and 3) from these measures, determining if consumers' attitudinal responses toward SRC show explicit and/or implicit ambivalence or rather, some level of indifference. Implications for policy makers and marketers are discussed.

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25. *Understanding the Impact of CSR Diversification on Company and Product Evaluations*

Onur Bodur, Concordia University, Canada

Andrea Kim, Concordia University, Canada*

Although consumers' expect companies to engage in some form of corporate social responsibility (CSR), 'doing good' does not mean that consumers will form favorable attributions about the company. Building on stakeholder theory in management literature and attribution theory, we investigate whether CSR resource allocation, CSR diversification, public scrutiny and company size play a role in attributions formed about the CSR involvement and resulting company and product evaluations. Our results from two field experiments suggest that CSR diversification can have an impact on brand and company evaluations, even when the same amount of resources are allocated to CSR activities.

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26. *When to Use Negative Information: Self-Presentation and Problem/Solution Framing Effects*

Hounaida El Jurdi, University of Auckland, New Zealand*

Problem/solution framing is a strategy commonly used by advertisers; however, its effects on message persuasiveness have not been researched. This thesis draws on the framing and self-presentation literatures to develop a model that establishes the boundary conditions under which problem/solution framing may or may not enhance persuasion. The hypotheses were tested using a 2 (self-presentation: low, high) x 2 (message frame: problem vs. solution) full factorial design. Results show that problem frames relating to high self-presentational concerns are perceived to be more threatening and have a less favourable effect on Aad than messages relating to low self-presentational concerns.

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27. *Cross-Cultural and Cross-Industry Comparisons of Negativity in Customer Service Satisfaction*

Keiko Powers, J. D. Power and Associates*

This paper investigates the theory of negative dominance in the context of customer service satisfaction with three empirical studies. The main purpose of the studies is to explore and attempt to better understand the relationship between negativity and customer service satisfaction utilizing the quantitative methodology developed by applying the negative dominance theory. The empirical analyses are based on over twenty large-scale satisfaction surveys with approximately 500,000 respondents. The results consistently show that the negative dominance pattern exists across different cultures and different industries, as well as the four-year time span being examined. Implications of these findings for consumer researchers and marketing practitioners will be discussed.

For more information contact: kpowers@marketshare.com**28. *Retail with a Side of Religion: Examining the Use of Religiosity within Retail Strategy***

Marlene Towns, University of Southern California, USA*

Andrea Scott, Pepperdine University, USA

The current research examines the use of explicit yet subtle religious references by retailers and attempts to understand, from the marketer's perspective, the motivations behind and goals of such messaging. We also examine the marketplace impact of such subtle religiosity including consumer awareness of, attitudes toward and behavioral response to brands engaging in such practices and measure resulting attitudes toward the brand and purchase intention.

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Boyoun (Grace) Chae, University of British Columbia, Canada*

Darren Dahl, University of British Columbia, Canada

Rui (Juliet) Zhu, University of British Columbia, Canada

Toyota Motor Corp.'s massive recall and production stoppage in November 2009 and January 2010 defamed the reputation of the automaker. Does this recall event change the Japanese consumer's consumption of American products? This study investigates whether the failure of an in-group brand impairs in-group's identity and documents possible consequences of in-group brand failure on consumption.

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30. *The Impact of Food Placements in Movies on Food Choices among Young Adults*

Svetlana Sukhacheva, University of Minnesota

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Jannine Lasaleta, University of Minnesota*

Elizabeth Diebel, Scripps College

Maura O'Brien, Princeton University

Barbara Loken, University of Minnesota

Charlotte Zelle, Middlebury College

Increasing obesity rates is a growing health problem in the U.S. and around the world. We examine the impact of unhealthy food and beverage placements in movies on young adults in two studies. Results of a first study, a content analysis of some box office hits (1960-2009), examined unhealthy food placements over time. Results of the second study, a laboratory experiment, suggested that exposure to a clip with movie characters consuming a sugary beverage (versus the same clip with the beverage digitally removed) led to higher unhealthy beverage choices among young adults.

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31. *The Impact of a Limited-Edition Offers on Core Brand Image Rejuvenation*

Hyunju Shin, The University of Alabama, US*

David Mothersbaugh, The University of Alabama, US

Even though downward brand extensions for prestige brands are an attractive option, it may result in brand image dilution. This research examines the influence of a brand's limited-edition offer on core brand image rejuvenation. Results from an experiment reveal that a limited-edition offer is an effective brand strategy to enhance consumer satisfaction and WOM intention when the brand has suffered from a diluted prestigious brand image. And brand image was rejuvenated by the limited-edition offer for those who have a high (but not low) level of self-presentation motive via luxury brands. Theoretical and managerial implications are provided.

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32. *Shopping Motivations, Behaviors, and Emotion Changes of Consumers with Loneliness*

Lien-Ti Bei, National Chengchi University, Taiwan

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This study explored the diversities of lonely consumers' shopping motivations and the corresponding relationships with their purchase behaviors. We employed in-depth interviews and found that loneliness couldn't be effectively changed via shopping behaviors for consumers with high levels of loneliness. The second part of this study used the UCLA-3 loneliness scale (Russell, 1996) to survey 550 consumers during and after purchasing. The results showed that consumers high in dispositional loneliness tended to choose escapist shopping strategies when feeling lonely, while those high in dispositional connectedness (antithesis to loneliness) tended to seek interpersonal contacts. The shopping behaviors and the shopping durations of different types of lonely consumers were also compared to provide a framework for future research.

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33. *Taken Advantage Of or Taking Advantage Of? Consumer Reactions to Advantageously Inequitable Prices*

Lindsay McShane, Queens University*

Laurence Ashworth, Queens University

Two dominant frameworks in price fairness research, equity theory and transaction utility theory, make divergent predictions when prices are below the reference price – transaction utility theory suggests this should be considered fair, while equity theory suggests this should be unfair (i.e. advantageous inequity). The current work examines conditions under which consumers consider advantageous inequity fair versus unfair. We argue that in the absence of any explanatory information consumers are likely to act in accordance with transaction utility theory – that is, gains relative to some referent standard will be perceived as fair. However, in the presence of explanatory information, we argue that consumers will recognize that their advantage is unfair, consistent with predictions from equity theory. We examine these ideas in contexts where the both another consumer and the firm serve as the referent standard.

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34. *Is That Really Relevant? An Equity Theory Perspective on What Inputs and Outcomes Consumers Consider Relevant To Fairness Judgments*

Lindsay McShane, Queens University*

Laurence Ashworth, Queens University

Many of the dominant approaches to understanding fairness in marketing have their roots in the broad framework of equity theory. According to this perspective, fairness requires that consumers' outcomes and inputs be in the same ratio as some comparison standard. However, it is not entirely clear what outcomes and inputs consumers consider relevant to such judgments. Existing work appears to make different assumptions about what outcomes and inputs are relevant. The current work investigates the idea that, in the context of comparisons made to sellers (as opposed to other consumers), buyers are more likely to consider buyer outcomes for which the seller was responsible and seller inputs for which the seller was not responsible relevant.

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35. *Niche Branding as a Double-edged Sword: Materialism Moderates the Psychological Impact of Brand Rejection*

Tyler F. Stillman, Southern Utah University*

Fang Wan, University of Manitoba, Canada*

Interpersonal rejection—feeling unwanted as a social interactant—causes high levels of psychological distress, with no known exceptions. However, interpersonal rejection is not the only form of rejection. Brands targeting at niche segments to signal exclusivity may intentionally reject potential consumers. In the current work, we tested whether brand rejection—rejecting consumers' brand membership—brought about psychological distress similar to that of interpersonal rejection. Results indicated that unlike interpersonal rejection which invariably casts shadow on individuals' psychological well-being, brand rejection demonstrated beneficial effect on psychological well-being among consumers with low materialistic values.

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36. *Self Construals and Compliment Acceptance: The Mediating Role of Processing Ease and Perceiving Sincerity*

Fang Wan, University of Manitoba, Canada*

Hesham Fazel, University of Manitoba, Canada*

Pingping Qiu, Monash University, Australia*

Compliments are conducive to social interactions and communications. However, cross-cultural research on compliment giving and acceptance has mostly been anecdotally studied by social linguists. In this work, we use self construals as a proxy to study cultural difference in compliment acceptance, its psychological underpinnings (Study 1 and Study 2) and to examine its implications in brand usage contexts (Study 2).

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37. *On Consuming Less and Being More Satisfied: Lifestyles and Cultural Orientations*

Minkyung Koo, University of Illinois at Urbana Champaign * Young Ik Cho, University of Illinois at Chicago

Sharon Shavitt, University of Illinois at Urbana Champaign Noel Chavez, University of Illinois at Chicago

Timothy Johnson, University of Illinois at Chicago

Saul Weiner, University of Illinois

Allyson Holbrook, University of Illinois at Chicago

This paper examines the relation of horizontal and vertical cultural orientations (Triandis & Gelfand, 1998), as well as race/ethnicity, with consumer lifestyles and economic judgments. A large-scale survey with a diverse, stratified sample of 400 African American, Korean American, Mexican American and non-Hispanic white adult respondents revealed distinct lifestyle behaviors and perceptions as a function of cultural orientation. In particular, across race/ethnic groups, horizontal collectivism predicted greater conservation in consumption (such as recycling more, driving less, and eating less meat for environmental reasons), and also greater financial and life satisfaction.

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38. *Scary Is Good: How State-Oriented Consumers Process Product Warnings*

William Jones, Wayne State University, USA*

Fred Morgan, Wayne State University, USA

Outside of the legal studies area, product warnings have received little attention by consumer researchers. In this study, we examine predictors of consumers' intentions to enact warning information messages. By definition, warnings have negatively valenced associations. Given this, individual differences in consumers' threat-related emotional self-regulation abilities are of consequence. Drawing on behavioral reasons theory (BRT; Westaby, 2005), we conducted two multi-group structural equation analyses to compare predictors of intentions between emotionally well regulated (action-oriented) and poorly regulated (state-oriented) consumers. Results indicate that under positively-framed warnings, state-oriented consumers, ironically, attach greater weight to their reasons against following the warning.

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39. *Consumer Investment in Consumer-Brand Relationships: Scale Development and Validation*

Yongjun Sung, University of Texas at Austin*

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Although there is growing interest in the application of the relationship metaphor in the context of consumer-brand relationships, the concept of consumer investment in brand relationships has not been adequately addressed in the literature. A series of empirical studies was conducted to identify underlying dimensions of consumer investment, develop and validate a scale for measuring these dimensions, and explore theoretical linkages of the multiple dimensions of investment to consumer-brand relationship strength and commitment. Results of two studies demonstrate that the six-factor model (i.e., brand dependency, self-brand connection, brand learning, nostalgia, community, and social norm) is robust, confirming the multidimensional nature of investments in consumer-brand relationship context.

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40. *Threats to Customer Loyalty Rewards Program Membership: A Social Identity Perspective*

Kyra Blower, University of Washington, USA*

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This paper contributes to the growing research on loyalty programs (e.g., Dréze & Nunes, 2009; Wagner, Hennig-Thurau & Rudolph 2009) by exploring how social identity moderates consumer responses to threats to program membership. First, the paper discusses social identity theory and its relationship to loyalty program research. Then, the concepts of regret and disappointment are employed to suggest hypotheses regarding goal pursuit versus goal disparagement. Preliminary research findings support a moderating role for social identity. Implications for managing loyalty programs and suggestions for future research conclude the paper.

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41. *Cultural Differences in Positive Affect Regulation*

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Sharon Shavitt, University of Illinois at Urbana-Champaign, USA

In general, East Asians may be more likely to down-regulate (seek experiences that will help them to decrease the level of) positive affect whereas Westerners are more likely to up-regulate (seek experiences that will help them to increase the level of) positive feelings. By introducing social settings and sources of emotion into the framework, we propose that the process of emotional adjustment is also influenced by the motivation to engage in affect regulation. A study in which sources of positive feelings were examined for their impact on music choice suggested that, after describing a happy event, Westerners were somewhat more likely to choose upbeat music than East Asians were, presumably as a way to up-regulate their mood state. However, Westerners (East Asians) who described a happy event about group activity were less (more) likely to choose upbeat music than other Westerners (East Asians) who described a happy event about personal experience.

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42. *Thrifting: Secondhand Branding and Hedonic Consumption*

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Graham Austin, Montana State University, USA

“Thrifting” (specifically, the process of thrift store shopping) is a pleasure-seeking or hedonic exercise much like traditional retail shopping. In the last twenty years, the commercial arena of secondhand consumption has become recognized as a dynamic site of hedonic consumption for both the “affluent” and “deprived” consumer. The following ethnographic inquiry explores secondhand hedonic shopping motivations for idea-shopping (image-creation) and adventure-shopping (adventure-seeking) as associated with brand recognition. As in primary markets, secondhand consumers are enhancing self-perception by recognizing brands and consuming or avoiding these brands.

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43. *The Role of Self-Concept and Giver-Receiver Affiliation in the Evaluation of Gifts across Genders*

David E. Sprott, Washington State University, USA*

Manja Zidasek, Washington State University, USA*

Bianca Grohmann, Concordia University, USA

How do consumers evaluate received gifts? While a number of studies have addressed various aspects of the gift exchange process, little research has explored the underlying processes that influence consumer’s evaluation of a received gift. In two studies, we test the effects of gender of the gift-recipient, congruence of the gift with the recipient’s self-concept, as well as gift-giver affiliation. Results indicate that consumers more favorably evaluate gifts that are congruent with their self-concept and received from an individual with stronger affiliation to the gift recipient. Further, these results are dependent upon the gender of the gift recipient.

Saturday, 26 February 2011

5.1 Individual Papers: New Discoveries in Pricing

Room: Grand Ballroom A

Chair: Ryan Hamilton, Emory University

The Influence of Price Image on Consumer Choice: Preferring High-Priced Items from Low-Priced Stores

Ryan Hamilton, Emory University, USA*

Oleg Urminsky, University of Chicago, USA

Reference price theories have dominated research on consumer price evaluations for several decades—and for good reason. Statistical models that include a reference price consistently predict brand choice, purchase quantity, and purchase timing better than models that do not include a reference price factor. Furthermore, reference price theories are grounded in well-supported psychological theories. The reference price theories differ in how to measure reference prices, but they all share the underlying assumption that price evaluations are the result of comparing an observed price with some fixed reference standard, generally assumed to be based on historically observed prices.

However, these models assume that consumers remember either reference prices themselves, or have some memory of historical prices that they use to construct reference prices. While this may be a reasonable assumption in some categories and for some consumers, the literature on shallow processing of information and cognitive misers suggests that a great deal of decision making may occur in the absence of such information. In this paper, we investigate decision making when consumers do not have a well-defined reference price. In a series of studies, we find that when consumers lack accessible reference prices, they instead use subjective evaluations of the retailer's general pricing reputation ("price image") to guide their relative price evaluations and purchase decisions. Thus, instead of evaluating a price by comparing it with a fixed reference point, we show that consumers instead may use their overall impressions of the retailer as a heuristic in inferring the desirability of an offer.

The process we propose here is the opposite of what has traditionally been assumed in the literature, in which a comparison between actual prices and reference prices drives inferences regarding the utility of the deal. In the traditional view, consumers may use these product-specific deal evaluations in forming a more general price image of the retailer (e.g., deciding that a store is over-priced after encountering several prices that are all evaluated as high).

In contrast, we demonstrate that when a reference price is not readily available, consumers rely on the retailer's price image to infer an evaluation of the offers they encounter. As a consequence, encountering the same price at two different retailers with different pricing reputations can lead consumers different price perceptions. In this way, a consumer without a well-defined reference price may conclude that a price found at store with a low price image is likely to be low (given the reputation of the store) but the same price found at a store with a high price image is likely to be high. The result is that the same price can be evaluated as low when seen at Walmart but high when seen at Whole Foods.

It is important to note that the process of generating retailer-specific price perceptions that we propose is the opposite of the effects attributed to transaction utility. Rather than being more willing to accept higher prices at a higher end retailer (as in Thaler's "beer on the beach" example), consumers in our studies evaluated a given price as higher at a higher end retailer.

We have found support for this account in a series of five experiments. For the sake of brevity, we will present the details of only one in this abstract:

One-hundred and sixty five adults from a web-based subject pool were randomly assigned to one of two price image conditions (high vs. low). All participants were asked to imagine that they were shopping for binoculars. Participants in the high price image condition were told that they were shopping in a store that had a reputation for having high prices and those in the low price image condition were told that they were shopping in a store that had a reputation for having low prices. The store carried two binoculars, a \$69.99 Nikon and a \$49.99 Bushnell. After choosing one of the two binoculars, participants were asked to rate their own familiarity with the prices of binoculars on a seven point scale.

We predicted that when participants had a low level of familiarity with the prices of binoculars (and hence poorly defined reference prices) the influence of price image on price evaluations and choice would be greatest. Specifically, we expected price image would have a significant impact on price evaluations and choice among participants with a low level of familiarity with the prices of binoculars. When participants had a high level of familiarity with the prices of binoculars, on the other hand, there would be less of a need to use the retailer price image to help in evaluating prices. Thus, we expected the influence of price image to be reduced for participants with a high level of familiarity with the price in the category. We conducted a median split on participants' self-reported familiarity with the price of binoculars to divide them into high and low familiarity groups.

The choice data are consistent with our predictions. When participants had a low level of familiarity with the prices of binoculars, the preference for the low priced option was higher (58.5%) at the store with the high price image than at the store with the low price image (37.8%; $\chi^2(1) = 3.29$, $p < .05$). In contrast, when participants had a high level of price familiarity, there was no impact of price image (43.9% vs. 50.0%; $\chi^2(1) < 1$). A logistic regression predicting binocular choice as a function of price image and price familiarity revealed a significant interaction ($\chi^2(1) = 2.94$, $p < .05$). Price perception measures were consistent with the choice findings: participants with low familiarity with binocular prices were significantly influenced by the price image of the store, evaluating the prices as lower if the store had a lower price image and vice versa. The effect of store price image disappeared when participants were familiar with binocular prices, consistent with the notion that these participants had available reference prices and so had no need to use the store price image in their evaluations.

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The Role of Retailer's Perceived Price Promotional Expenses in Evaluation of Price Promotions

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During price promotions, consumers usually expect to receive a certain range of benefits based on their marketplace experiences and an understanding that companies cannot compromise their profit-seeking goals. Whereas consumers may believe that marketers are trying to increase sales by offering additional value in the form of discounts, they also realize that marketers cannot cross the point

beyond which they will experience losses (Raghubir 2004; Jain, Slotegraaf and Lindsey 2007). Hence, offering excessive value (e.g., an unexpectedly high discount) during a price promotion may be perceived as a violation of a “common sense of selling” (Friestad and Wright 1994, 7). In such situations, consumer reactions will be determined by their interpretations of the underlying causes and deal evaluations may not follow linear pattern as they should have according to the perceived value of a deal concept (Monroe 1979). Research provides ample of evidence that consumers do not always accept price promotions at their face value: consumers discount high discounts (Gupta and Cooper 1992), refuse to believe in exaggerated reference prices (Urbany, Bearden, and Weilbaker 1988), and may be concerned about the quality of deeply discounted products (Friestad and Wright 1994).

In this research we develop a comprehensive conceptual framework that parsimoniously account for consumer reactions to both typical and atypical price promotions. We suggest that during price promotions, consumers implicitly estimate not only the perceived value of a deal (Monroe 1979), but also the overall value that a retailer is offering to all consumers during price promotion campaign (retailer’s perceived price promotional expenses). Price promotional expenses reflect a marketer’s financial capability to incur all expenses and provide a background for evaluating an individual benefit. Price promotional expenses determine the typicality of a price promotion and predict whether a deal will be evaluated in a linear (Monroe, 1979) or more configural nonlinear manner (Bettman 1970).

Although traditionally excessive value in a price promotion context is associated with the higher than expected discounts, discount is not the only price promotion factor that contributes to the perception of the overall value offered by a marketer during a price promotion. Other factors include reference price, time restrictions, number of discount recipients and promotional frequency. Consumers, knowing that profit-seeking companies cannot provide benefits greater than some critical value, logically assume that less frequent and more time-restricted price promotions available to fewer recipients leave room for larger discounts, whereas more frequent and less time-restricted price promotions available to everyone push discounts down.

We further suggest that when consumers are exposed to a price promotion offering excessive value, they engage in attributional thinking. The main goal of such mental exercises is to restore the common sense of selling. In general consumers may adjust downward either the advertised original price (reference price) or product quality to compensate for the excessive value. In addition, consumers are likely to perceive retailers offering excessive value as manipulative regardless of the type of adjustment.

Study one investigated the joint effect of reference price and discount and employed a 2 (high vs. regular discount) by 2 (exaggerated vs. plausible reference price) between-subjects design. Results support Urbany et al.’s (1988) findings in terms of deal evaluation and also show that deep discount condition results in significantly lower product quality perceptions. Finally, retailer credibility was negatively affected in the deep discount and in the exaggerated reference price conditions.

Study two investigated the joint effect of discount and time restrictions and employed a 1 (high discount) by 2 (high vs. low time restrictions) between-subjects design. Results reveal a significant hypothesized difference in respondent quality perceptions, but not in their perceptions of retailer credibility.

Study three investigated the joint effect of discount and number of discount recipients and employed a 1 (high discount) by 2 (available to everyone vs. few) between-subjects design. Results reveal that when high incentive is offered only to a few consumers, respondent perceptions of service quality are significantly higher than when the incentive is offered to all consumers.

Our research contributes to the growing body of literature on price promotions. When consumers doubt marketer's financial capability to incur all promotional expenses they become suspicious and reevaluate individual benefits offered during price promotions.

Perceived value of a deal, being embedded in a more general framework, is context dependent and moderated by a number of factors that contribute to the perception of price promotional expenses.

To date, a joint effect of different factors on consumer perceptions of price promotions has received only limited attention in the literature. Prior research shows that the perceived value of a deal may also be affected by more distant contextual cues such as brand name (Dodds, Monroe and Grewal 1991), store reputation (Dawar and Parker 1994) etc. In contrast, our research focuses on more general price promotion factors and helps to understand how consumers determine typicality of observed price promotions and consequently the way they evaluate individual benefits offered during price promotions.

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\$125 for a Shovelful or \$12.50 for a Spoonful: Effects of Bundle Size, Computation Ease, and Presentation Order on Consumer Perceptions

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Firms often bundle multiple items. For instance, on-demand movies may sell at a unit cost of \$2.50. But the firm may advertise the offer using a larger-sized bundle (e.g., "\$125 for 50 movies") or a smaller-sized bundle (e.g., "\$12.50 for 5 movies"). If consumers could buy as many movies as they wished and at the same price, would bundle size affect unit cost perceptions, purchase likelihood, and number of movies viewed?

Bundles highlight two pieces of information: price (e.g., \$125 or \$12.50) and number of items (e.g., 50 or 5 movies). The price information reflects costs, or payables, while the number of items reflects accrued exchange benefits, or receivables. If consumers compute unit costs, then bundle size should not affect perceptions, as unit cost remains invariant. But, if computation were harder, consumers may not perform the necessary calculations. Instead, they may focus on contextual cues (price or number of items) to make inferences. Perceptions might vary depending on which information is used. The order of presentation; price first ("\$125 for 50 movies") or number of items first ("50 movies for \$125") might affect which information is used. We investigate the effects of bundle size on consumer inferences contingent on ease of unit price estimation and presentation order of price and number of items.

Extant literature suggests that individual difference variables (Cacioppo and Petty 1982), situational factors (Dhar and Nowlis 1999), or factors embedded in decision contexts, such as the nature of the numbers involved (Thomas and Morwitz 2005, 2009a,b) can lead to real or perceived calculation difficulty. In the present context, the relationship between price and number of items can make computations easier or harder. In the large bundle conditions, if the promotion were instead "\$170 for 70 movies", it would be harder to assess unit price ($170/70$ is harder than $125/50$ to calculate), though actual unit cost is similar (\$2.43 vs. \$2.50).

We propose that when computations are harder, consumers anchor on one piece of information to make inferences. Anchoring literature suggests that individuals often anchor on the first piece of information and then adjust (insufficiently) for the second piece (Hogarth and Einhorn 1992; Tversky and Kahneman 1974). Thus, in the harder-to-compute example, consumers might anchor on the

payables, price (\$170), and adjust insufficiently for the receivables, items (70 movies). The high price may lead to the inference that the product is costly and that the unit price is also high and, therefore, may influence bundle perceptions negatively, relative to when computations are easy (\$125 for 50 movies). A reversal may occur when item information is presented first (70 movies for \$170). Anchoring on the large number of items may focus attention on the receivables (vs. the payables) and lead to the inference that the promotion reflects a good deal relative to the easy-to-compute condition. Furthermore, in harder-to-compute conditions, presenting price first may lower evaluations relative to when item information is presented first as attention might be on payables rather than receivables.

The effects documented above should attenuate for small bundles because number magnitudes, and correspondingly, anchoring effects may be smaller. Literature on numerosity would support this assertion. Numerosity literature suggests that number magnitude is used to make size inferences. Larger numbers equal greater inferred amounts (Josephs, Giesler, and Silvera 1994; Pelham, Sumarta, and Myaskovsky 1994; Wertenbroch, Soman, and Chattopadhyay 2007). Therefore, hypothesized effects should be stronger for large versus small bundles. We investigate these effects in two studies.

In Study 1 we use a music download context to investigate unit pricing perceptions. An ANOVA with money per song as the dependent variable elicited only the predicted three-way interaction ($F(1, 220) = 6.49, p < .02$). In large bundle conditions, price-item ordering elicited higher unit price perceptions when computation was hard ($M_{\text{computation-easy}} = 2.48$ vs. $M_{\text{computation-hard}} = 3.18, p = .04$). A reversal emerged in item-price ordering conditions. Specifically, unit price was perceived to be lower when computation was hard ($M_{\text{computation-easy}} = 2.60$ vs. $M_{\text{computation-hard}} = 1.91, p = .052$). When computation was hard, price-item ordering elicited higher unit cost perceptions ($M_{\text{price-item}} = 3.18$ vs. $M_{\text{item-price}} = 1.91, p = .005$). All effects were attenuated in small bundle conditions (all $ps > .08$).

Study 2 demonstrates the hypothesized interaction for participant's trial likelihood and number of movies they would view in a movie download context. The 3-way interaction was significant ($F(1, 194) = 6.59, p < .02$). For large bundles, price-item ordering elicited lower trial likelihood when computation was hard ($M_{\text{computation-easy}} = 3.35$ vs. $M_{\text{computation-hard}} = 1.82, p < .005$). A reversal emerged in the item-price ordering conditions. Likelihoods were higher when computation was hard ($M_{\text{computation-easy}} = 2.06$ vs. $M_{\text{computation-hard}} = 3.13, p < .04$). Additionally, when computation was hard, price-item elicited lower trial likelihoods than item-price ($M_{\text{price-item}} = 1.82$ vs. $M_{\text{item-price}} = 3.13, p < .01$). All effects were attenuated in small bundle conditions (all $ps > .35$).

A similar pattern emerged for participant's perceptions of the number of movies they would view. The hypothesized 3-way was significant ($F(1, 186) = 7.46, p < .01$). In large bundle conditions, respondents indicated they would view fewer movies in the price-item conditions when computation was hard ($M_{\text{computation-easy}} = 4.66$ vs. $M_{\text{computation-hard}} = 2.91, p < .001$). In item-price conditions, viewing estimations were marginally higher when computation was hard ($M_{\text{computation-easy}} = 3.28$ vs. $M_{\text{computation-hard}} = 4.26, p = .08$). When computation was hard, participants were likely to view fewer movies in price-item conditions than in the item-price conditions ($M_{\text{price-item}} = 2.91$ vs. $M_{\text{item-price}} = 4.26, p < .02$). All effects were attenuated in small bundle conditions (all $ps > .75$). Study 1 and 2 manipulation checks were successful.

All our hypotheses were supported. This research contributes to several literatures and has implications for managers. Understanding the interactive effects of bundle size, presentation order, and calculation difficulty can allow managers to design better bundles, especially large bundles. From a consumer welfare standpoint, consumers should be encouraged to make relevant and effortful unit-price comparisons, and thus insulate themselves from undesirable effects.

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When Budgeting Backfires: How Salient Price Constraints Can Increase Spending

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One very common bit of advice given to consumers who wish to control their spending is to decide how much they want to spend before they start shopping. What makes this advice interesting from the standpoint of consumer choice theory is that although price constraints are widely acknowledged drivers of consumer choice, the *salience* of price constraints is not integral to many theories of consumer behavior.

How do salient price constraints affect consumer choices? Previous research suggests three possible outcomes. One prediction is that making price constraints salient will have no effect on choice. Economic theories of rational choice seem to leave no room for salience to influence consumption decisions (Mas-Colell, Whinston, and Green 1995). The implicit assumption of these models is that price constraints are always salient and always available to guide the choice of a consumption bundle that maximizes utility.

A second possible prediction is that making price constraints salient will tend to decrease the preference for higher priced options. There is some evidence to support this prediction. Making price constraints salient is likely to draw attention to prices. The more attention is paid to an attribute, the greater its weight in a decision (Fiske 1980; Mackenzie 1986).

A third possible prediction, and the one that we advance in this research, is that salient price constraints can actually lead to an increase in the preference for higher priced, higher quality alternatives relative to a scenario where price constraints are not salient. The basic argument is that making a price constraint salient partitions the evaluations of the price and quality information used in decision making. A salient price constraint is necessarily a consequence of the consumer considering price information before she begins evaluating options. As a result, price information becomes less diagnostic as a means for making a final choice, since it was already used to create a set of options “acceptable” on the price dimension. Therefore, we propose that in the presence of salient price constraints, non-price, quality information will be more influential in making a final choice. It is important to note that the increased emphasis on quality caused by a salient price constraint is not limited to a particular way of eliciting the price constraint. Rather, we argue that any price constraint can effectively define a range of prices that are more acceptable than others.

Seventy-three adults drawn from an online subject pool were randomly assigned to two conditions. All participants were asked to imagine they were on a road trip when they had a blowout. Luckily, there was a tire store nearby to sell them a replacement. In the No Price Constraint condition, participants were simply shown eight replacement tires, ranging in price from \$19.99 to \$89.99 in 10 dollar increments. Pretesting revealed that higher priced tires were generally perceived to be of higher quality. All tires were described by real brand and model names and included a picture of the tire taken from the website of a national tire retailer. In the Salient Price Constraint condition, before participants saw the choice set, they were asked, “If you really were buying a tire today, how much would you plan on spending?” Participants were given the choice of four price ranges: \$15–\$35, \$35–\$55, \$55–\$75, or \$75–\$95. After choosing a price range, these participants saw the same set of eight replacement tires and were asked to choose one.

If making a price constraint salient increases the influence of quality on choice, we should find a general shift in preference toward higher priced, higher quality alternatives. Consistent with this prediction, we found that participants in the Salient Price Constraint condition tended to prefer more expensive tires than participants in the No Price Constraint condition. On average, participants who indicated how much they planned on spending before they saw the choice set spent significantly more on a replacement tire than those

who made a choice from the same set without first thinking about how much they would spend (\$59.13 vs. \$49.46; $t(71) = -2.38$; $p < .001$).

Like experiment 1, experiments 2 and 3 demonstrate that making a price constraint salient leads to increased spending. In experiment 2, participants in the salient price condition were asked how much they would plan to spend on a 32-inch HDTV before selecting one of two possible HDTV options. Participants in the salient price condition of experiment 3 were asked, prior to making a binary choice, the most they would be willing to spend on a netbook computer. In both experiments, as predicted, participants in the salient price condition spent significantly more than participants in the no price constraint condition. Experiments 2 and 3 replicate the results of experiment 1 with different types of price constraints and a different type of choice (binary choice instead of a selection of one of eight possible options).

Experiments 2 and 3 also provide additional evidence for our proposed mechanism. After making their selections, participants rated the perceived quality of both choice options. We predicted that participants in the price constraint condition would perceive a greater difference in quality between the two options than participants in the no price constraint condition. This prediction follows from range theory, which shows that when evaluating a set of objects on a physical dimension, consumers' judgments are strongly influenced by the range of values in the local set (Parducci 1965). If, as we propose, a salient price constraint limits one's focus to options within an acceptable range, then this limited focus should increase the perceived difference in quality perceptions. Evidence from experiments 2 and 3 supports this prediction. In both experiments, participants in the salient price constraint condition perceived a greater average difference in quality between the two options than did participants in the no price constraint condition.

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5.2 Symposium: Seeing and Believing: The Abstract and Concrete in Consumer Behavior

Room: Pine Room

Chair: Ayalla Ruvio, Temple University, USA

Discussion Leader: Gavan J. Fitzsimons, Duke University, USA

Brands: The Opiate of the Non-Religious Masses?

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The interesting relationship between brands and religion has attracted the attention and imagination of both scholars and practitioners for many years. Yet, the theoretical basis for such a relationship remains unclear and empirical evidence is limited. This research addresses these issues by focusing on how religiosity impacts brand reliance (i.e., the degree to which consumers prefer branded goods over unbranded goods or goods without a well-known national brand.)

Some years ago, the global advertising agency Young and Rubicam asserted that brands are the new religion, and that brand builders are similar to missionaries of Christianity and Islam (2001). A few years later, Belk and Tumbat (2005) argued that the Macintosh brand has a community following that is equivalent to a religion in many ways, characterized by a strong network of adherents, faith in a “savior” (Steve Jobs), and general enmity toward a common evil (IBM, Microsoft, etc.).

These are just two of several examples that demonstrate a shared interest in the fascinating relationship between religion and brands among both practitioners and academic scholars. They also demonstrate the great breadth with which people can think of the terms “brands” and “religion”. For example, the term “brands” may lead one to think of concepts related to “loyalty”, “community”, “value”, and “positioning”, among others. Certainly, no single-study can examine the relationship among all possible concepts related to “brands” and “religion”. In this study we focus on the concepts of “brand reliance” and “religiosity”, which we consider to be quite fundamental to developing an understanding of how religiosity impacts consumers’ decisions.

We define brand reliance as the degree to which consumers prefer branded goods over unbranded goods or goods without a well-known national brand (e.g., store brands). This definition captures the value that consumers place on the benefits they derive from brands. These benefits can take many forms, including simplifying decision making, reducing risk, and providing benefits that go beyond functional benefits, such as offering experiential and self-expressive benefits (Aaker, 1991). Consumers differ in how much they value such benefits and thus, in how much they value brands. We introduce the notion of “brand reliance” in order to capture the value that consumers place on the benefits they derive from brands.

The notion of brand reliance is clearly related to the concept of brand equity. One way of thinking about brand reliance is as the weight that the individual is placing on the equity of a brand. However, while brand equity is a characteristic of a brand, brand reliance is a characteristic of the individual. Furthermore, while brand equity is a characteristic of a specific brand, brand reliance is a characteristic of the individual when she assesses brands in general. Its close connection to brand equity demonstrates the fundamental nature of brand reliance and thus our interest in using this concept to represent “brands” in this study.

The term “religiosity” is also quite broad. It can be perceived, among other things, as the degree to which one believes in God or participates in the activities of a religious community (e.g., gathering in church every Sunday). In this study we define it as “the centrality of religion to the individual as reflected in his or her attitude and behavior towards life”. This definition is quite similar to the one used by Pearce, Little and Perez (2003) and enables us to develop a general perspective of how religiosity is associated with brand reliance by leveraging a variety of important operationalizations of the construct.

To develop a sense of whether an empirical relationship between brand reliance and religiosity exists at all, we first analyze state-level and county-level data from the US, which seem to suggest that the relationship between the two constructs is negative. Specifically, we find a negative correlation between the two even when we control for several relevant covariates (e.g., income and education).

Next, we seek to demonstrate that religiosity and brand reliance are negatively related because both of them allow individuals to express aspects of themselves to others. One specific aspect that both brands and religion are well-positioned to express is a sense of self-worth. We argue for a compensatory mechanism such that when an individual expresses her self-worth via one medium (be it brands or religion), she needs the other medium less. Thus, brands and religion function as substitutes in expressing self-worth. We examine this hypothesis in a series of experimental investigations.

Studies 1 and 2 demonstrate that the negative relationship between religiosity and brand reliance appears at the individual level – whether religiosity is experimentally primed (study 1) or measured as a chronic individual difference (study 2). Furthermore, these studies highlight the role of self-expression by demonstrating that this relationship only exists in product categories in which the brands enable consumers to express themselves (e.g., clothes) and not in product categories in which the brands satisfy only functional needs (e.g., batteries).

Studies 3-4 show that it is the expression of self-worth that leads to the negative relationship between brand reliance and religiosity. Specifically, study 3 demonstrates that priming religiosity as a vehicle for expressing self-worth leads to a decrease in brand reliance, but priming religiosity as satisfying other needs (e.g., security) does not lead to the same result. Study 4 directly identifies the mediating role of self-worth expression in this relationship.

Furthermore, throughout these studies, we reduce the plausibility of alternative explanations related to demographic variables, materialism, and demand characteristics.

There Will Be Pancakes in Heaven

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Consumer research has examined a multitude of locales in which consumption can occur (e.g., Bonsu and Belk 2003), aiming to provide a greater understanding of the significance of consumption both to individuals and the societies in which they live. However, all of these prior contexts are bound by the earthly constraints (e.g., time, financial resources, social norms, family obligations). The present research seeks to learn what might happen to consumer behavior when the gravitational pull of earthly necessity is removed and consumption is permitted to expand without limit. *What* and *how* would people consume when there are no boundaries, no responsibilities, no concerns about the consequences of their actions? Fortunately, there is believed to be a place in which such conditions exist, although no researcher currently living has ever gained access to it: the Afterlife holds forth the promise of unbounded consumption.

Humans have conceived of life-after-death since the species first gained self-consciousness – and knowledge of personal mortality – approximately 60,000 years ago (Pfeiffer 1982). From then forward, there have been many spiritual constructions by humans of what the Afterlife will entail and who will be permitted access to it (e.g., Freke 1996; Sheridan 2000) which varied across religions (e.g., Boyett 2009; Casey 2009). Among Chinese, those left behind burn paper replicas of houses, luxury automobiles, foods, servants, and paper money for their ancestors (Zhao and Belk 2008). Among Fundamentalist Christians, Heaven is a physical place with streets paved of gold, mansions for the inhabitants, with no earthly disasters, only “unlimited pleasure, unlimited happiness and unlimited joy (DeStefano p. 1). In the Islam (Blair and Bloom 1991), after being judged and found worthy of entering heaven, Muslim believers are able to recline on couches, drink from silvered cups, and wear silk garments and all imperfections of the body and environment are removed, and all wishes are immediately satisfied (Ma’sumian, 1995).

Regardless of the religious framing of the Afterlife, they are not focused specifically on what present-day consumers believe awaits them and their loved ones after death. Gaining knowledge of these expectations can provide a novel view into what consumers believe

to be the perfect or ideal lifestyle and the goods and services needed to create it. From considering these models of consumption perfection, researchers may gain deeper understanding of the limitations consumers believe are inhibiting their consumption activities. Sixty depth interviews were conducted. The interviewees were asked to describe the activities and lifestyle of their deceased relative who was now in “the afterlife.” A very diverse set of religious backgrounds, nationalities, ages, and ethnic groups was represented among both those interviewed, providing a broad sample of expectations regarding afterlife consumption.

In our sample, 57 interviewees believed that their deceased loved ones had physical bodies very similar to those they had on earth, but often in younger or more physically perfect form. Notably, all those persons who had died of a ‘wasting’ disease, such as cancer or Alzheimers, were believed to have fully regained their physical and mental abilities in Heaven. Others were reported be happier or more content since their earthly worries and responsibilities were over. Most of the interviewees believed that both emotional difficulties and physical frailties are left behind after death, and heaven is a place for bodily perfection and happiness.

Interviewees described two different lifestyles that they believed their deceased relatives were now engaging in during their sojourn in heaven: (1) Enhanced and (2) Limitless. The Enhanced heavenly lifestyle maintains the basic structure and content of the life the individual lived on Earth, free of negative aspects. For example, one woman sees her father in heaven wearing his favorite plaid shirt, sitting in his favorite chair, talking to friends on his cell phone, spends time in the swimming pool and continues to wear his Transition lens glasses. Her father lives in a house that matches his earthly house “which he loved so much”. In short, this type of imagined heavenly consumption mirrors that lived on earth, but includes only the positive aspects.

The other half of our sample envisioned a limitless set of consumption possibilities for their loved ones. In this view of Heaven, consumer behavior is unbounded in its possibilities, every conceivable luxury is instantly available. For example, some reported their loved ones living in the equivalent of penthouses on Fifth Avenue in New York City, driving Ferraris, dining in restaurants, flying in jets to exotic resorts, wearing haute couture apparel, fine jewelry and being waited on by a household staff.

In keeping with the notion that experiences are vital aspects of consumer behavior, some respondents reported that their deceased relatives were able to time travel to view the construction of the Egyptian pyramids, visit distant galaxies, and see Rome in its glory. Others saw their loved ones playing in heavenly jazz bands with Dizzy Gillespie or engaging in philosophical discussions with Aristotle or Einstein. In this construction of heavenly life, all the mortal constraints of time (past present and future) and distance are surmountable.

Although preliminary, our present study brings to the fore several novel issues with regard to current understandings of consumer behavior.

Delayed versus immediate gratification: Some current theorization proposes that ultimate rewards are greater under conditions of delayed gratification (Hoch and Lowenstein 1991; Mischel and Ayduk 2002). Thus, working hard to obtain a particular goal results in greater appreciation of the prize, once it is obtained. But in the heavenly reports we collected, pleasure was seen as most intense when all goods and services were instantly available. Effort was viewed as painful, as something negative. Is this the death of Calvinism, or perhaps just documentation of its promise to reward the faithful?

But I like Being Bad: Some respondents reported that while they were alive, their deceased loved ones actually enjoyed “getting into trouble”, “stirring the pot”, “asserting their dominance”, and “raising hell”. These respondents were uncertain as to whether the deceased would be able to continue this misbehavior in heaven, but hoped that they would be. This raises the issue of whether

activities that most consumers would find stressful or upsetting are intrinsically pleasurable to a subset, who would find peace and tranquility boring.

Finally, we found that people believe that sinful consumption may be continued in the Afterlife. Our informants reported that they believed their deceased relatives were happily continuing their bad/self-destructive behaviors after death, such as smoking, doing drugs, drinking, gambling, and consorting with prostitutes – all of which they assumed would be readily available in Heaven. This, of course, leads us to rethink ideas of purity, virtue and self-control with regard to the ultimate rewards one receives in the Afterlife.

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Death, Afterlife, and Prosocial Behavior

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The idea that humans survive physical death is common to most cultures. Although narratives regarding the specific form and nature of this survival vary from culture to culture, the concept of an afterlife is a widespread belief. For example, according to a recent Pew survey, nearly 75% of Americans believe in heaven (Pew 2008). In addition to its ubiquity, the concept of an afterlife holds considerable self-relevance, as it concerns the very essence of our being.

Despite its importance, the idea of the afterlife has long been considered taboo by many academics (Berlinerblau 2010). Recently, several scholars across a wide swath of disciplines have begun to recognize the afterlife as a topic worthy of intellectual discourse (Casey 2009, Frohock 2010). Our research seeks to contribute to this dialogue by exploring the impact of afterlife beliefs on prosocial behavior. Specifically, we posit that individuals who believe in an afterlife exhibit higher levels of gratitude and generosity compared to those who lack this belief.

Prosocial behavior (PB) has recently caught the attention of a growing number of consumer researchers (e.g., Belk 2010; Fennis, et al. 2009; Liu and Aaker 2008). This attention is congruent with the emerging domain of transformative consumer research, which seeks to direct the efforts of consumer researchers to enhance the welfare of both individuals and society (Mick et al. 2011). Our research adopts a unique theoretical stance by invoking terror management theory (TMT) (Arndt et al. 2004). According to TMT, the fear of death produces a high degree of existential anxiety, which individuals seek to control by adhering to culturally accepted worldviews (see Solomon, et al., 2004 for a review). This theory has recently garnered the attention of consumer researchers (Ferraro et al. 2005; Mandel and Smeesters 2008; Rindfleisch et al. 2009).

A small but notable body of TMT research has linked existential anxiety to PB (e.g., Joireman and Duell, 2005, 2007). This finding is commonly referred to as the *Scrooge effect* (Jonas et al. 2002) and is thought to be directly linked to the fear of death. Our research extends and enriches this body of research in specific and TMT in general, by suggesting that this apparent increase in PB is actually due to hope of an afterlife rather than fear of death. Specifically, we argue that the hope of an afterlife instills a sense of self-transcendence that promotes an other-focus orientation (Bering 2006). In essence, we suggest that existential insecurity affects PB not by reducing the fear of death but by fostering a sense of transcendence.

To test this assertion, our research employs three experimental studies. All of these studies were conducted using 489 undergraduate students.

Our first study tested the linkage between existential insecurity and afterlife beliefs. In this study, the predictor variable was the standard TMT mortality salience manipulation, which asked participants in our test (control) condition subjects to describe the emotions that the thought of their own death (going to the dentist) aroused. The outcome variable was afterlife beliefs (reward and judgment; Rose and O'Sullivan, 2002). Although a MANOVA indicated no significant difference ($M_{\text{Manipulated}} = 3.30$, $M_{\text{Control}} = 3.37$, ns) in terms of participant's degree of belief in afterlife judgment, it did reveal a significant difference in terms of participant's degree of belief in afterlife reward ($M_{\text{Manipulated}} = 5.47$, $M_{\text{Control}} = 4.92$, $p < .05$). This pattern of results suggests that existential insecurity instills hope in the rewards of an afterlife.

Our second study was designed to assess the impact of afterlife beliefs on PB. In this study, the predictor variables were existential insecurity which was assessed via the fear of one's own death subscale (Wittkowski 2001), afterlife belief, and spiritual transcendence (Seidlitz et al. 2002). The outcome variable was PB (Ferraro et al. 2005). In contrast to Study 1, rather than measuring afterlife belief versus self-report, we assessed this belief by asking all participants to respond to a standard TMT manipulation and then coding the responses. Our coding revealed that 42% of our respondents expressed afterlife belief. Using afterlife belief (or not) as our key independent variable, we conducted tests of mediated regression analysis. This analysis revealed that afterlife belief (1) is positively related to death anxiety ($b = -.19$, $p < .05$) and spiritual transcendence ($b = .46$, $p < .01$), (2) is positively related to PB ($b = .23$, $p < .05$), but (3) its effect upon PB is fully mediated ($b = .08$, ns) by spiritual transcendence ($b = .29$, $p < .01$) but not by death anxiety ($b = -.08$, ns). Collectively, these results lend support to the notion that existential insecurity leads to PB via hope of an afterlife rather than fear of death.

Our third study extends Study 2 by providing a more explicit test of our assumption that the linkage between afterlife belief and PB is due to spiritual transcendence rather than fear of death. In this study, our key predictor variable was afterlife reward belief and our outcome variable was gratitude (McCullough et al. 2002). Half of the participants in this study were asked to respond to a typical TMT manipulation (i.e., death awareness) as employed in Studies 1 and 2. The other half were asked to respond to an alternative TMT manipulation developed by Cozzolino et al. (2004). This more recent TMT manipulation was specifically designed to foster a sense of spiritual transcendence (i.e., death reflection). Thus, if our conceptualization is correct, the relationship between afterlife beliefs and gratitude should occur for participants in the death awareness condition but not the death reflection condition (because all participants in this condition should be in a heightened state of transcendence regardless of their level of afterlife belief). Our results support this proposition, as an ANOVA indicated a significant impact of afterlife belief upon gratitude in the death awareness manipulation ($M_{\text{Low belief}} = 5.39$, $M_{\text{High belief}} = 6.36$, $p < .01$) but no significant impact of afterlife belief upon gratitude in the death reflection manipulation ($M_{\text{Low belief}} = 5.85$, $M_{\text{High belief}} = 5.87$, ns).

Collectively, the results of our four experiments suggests that TMT under-recognizes the important role of afterlife beliefs and that these beliefs have a powerful impact on prosocial behavior.

5.3 Symposium: A Question of Time: The Interplay between Consumption, Time, and Consumer Outcomes

Room: Birch Room

Chair: Morgan Poor, Indiana University

Discussion Leader: Morgan Poor, Indiana University

As Clear as Consumption: The Moderating Role of Emotional Clarity on Satiation

Morgan Poor, Indiana University*

Adam Duhachek, Indiana University

Shanker Krishnan, Indiana University

Enjoyment of positive experiences typically lessens with continued consumption, a process commonly referred to as satiation. Although extant research has identified various moderators of satiation (Ratner, Kahn, & Kahneman, 1999; Nelson & Meyvis, 2008; Redden, 2008; Nelson, Meyvis, & Galak, 2009; Galak, Redden, & Kruger, 2009), these variables have all been primarily cognitive in nature. This research introduces an emotional moderator important to understanding satiation. More specifically, we show that emotional clarity, defined as an individual's ability to identify, distinguish and describe specific emotions, can both reduce and reverse satiation (Gohm & Clore, 2000).

Recent research suggests that satiation is not necessarily a fixed physiological process, so much as it is a subjective feeling constructed in the moment (Galak et al., 2009). To that end, it stands to reason that persons with better understanding of their feelings, that is, those that are high in clarity, may show differences in satiation. According to cybernetic models of affect regulation (Larsen, 2000), clarity concerning an emotional state should encourage the down-regulation of undesirable affective states, including the irritation that may arise from repetition (Wilkowski & Robinson, 2008). Consequently, individuals high in clarity should be less affected by the irritation of repetition and as a result, show less satiation to the consumed stimulus. We provide evidence for this view in the following studies.

In study one, we test the general hypothesis that individuals high in clarity satiate slower than those low in clarity. Participants first chose a flavor of jellybean to use for what they were told was a taste test. The computer prompted participants to eat one jellybean at a time and rate how much they enjoyed it on an 11-point scale anchored by "not at all" and "very much." They repeated this process for a total of 15 trials. As part of an unrelated scale development study then, participants completed the clarity subscale from the Trait Meta Mood Scale (Salovey, Mayer, Golman, Turney, & Palfai, 1995). The results supported our hypothesis: a median split on clarity revealed that participants in the high group satiated slower and enjoyed the overall experience more than those in the low group. High clarity individuals were also marginally less bored by the repetition of the consumption experience, providing initial evidence that these individuals are better able to down-regulate the growing irritation of repetitive consumption.

Study two was designed to accomplish three goals. That is, we sought to replicate the results of study one this time using a different stimulus, manipulating instead of measuring clarity, and showing evidence for the proposed mechanism. Participants were told that this study was on music and emotion. Participants first read a news story about the relationship between music and emotion. Those in the high (low) clarity condition read that extant research has shown that most people are (not) able to clearly understand and identify their emotions while listening to music. Next, participants listened to a 4 minute instrumental piece of music by an unknown artist. To measure satiation, participants provided real-time ratings of their current enjoyment using an unmarked 101-point scale (anchored by

“I hate it” and “I love it”) which appeared every 30 seconds. After the song, participants also indicated the extent to which they agreed with the following two statements concerning affect regulation using a 9-point scale (anchored by 1 = disagree, 9 = agree): “when listening to the song started to feel repetitive, I changed the way I thought about the situation” and “when I became irritated during the listening experience, I controlled my irritation by changing the way I thought about the situation.” The results showed the hypothesized effects. The interaction between time and emotional clarity was significant, such that participants in the high clarity condition satiated slower to the song than those in the low clarity condition. Further the relationship between clarity and satiation was mediated by affect regulation.

Studies one and two showed that high clarity, whether measured or manipulated, led to slower satiation during repeated consumption. There is, however, an alternative route to countering satiation, that is, to reverse satiation once it has already set in. Previous research has shown that individuals high in clarity recover from negative moods faster and experience a significantly faster drop in ruminative thought after a stressful or negative event (Salovey et al., 1995). To the extent then that satiation is experienced as a negative state, we expect that individuals high in emotional clarity will experience faster recovery from satiation than those low in clarity. We test this prediction in study three.

Participants in study three were told that they were taking part in a study on art and emotion. To induce satiation, participants first viewed the same piece of artwork for six seconds 20 times in a row. After each viewing, they indicated their liking for it using the same 101 point scale from study 2. Next, to manipulate clarity, participants read the same news story from study two, except the word “music” was replaced with “art.” Participants then viewed the artwork one more time, listed any thoughts they had while viewing the art and once again indicated their liking for the artwork. This last liking measure served as the indicator of recovery from satiation. In line with our predictions, the results showed that participants in the high clarity condition liked the artwork more after the short viewing break than those in the low clarity condition and that this effect was mediated by less ruminative thought after the final viewing trial.

Taken together, our findings demonstrate that emotional clarity is a rare moderator that can both reduce satiation as it sets in and reverse satiation after it has already taken hold. In three studies, we showed that individuals high in clarity satiated slower than those low in clarity and also recovered from satiation faster. We also provided process evidence that supports the proposition that the clarity-satiation effect is mediated by affect regulation. Implications of these findings will be discussed further.

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Memory for Experiences and Hedonic Adaptation

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The issue of happiness and consumption has attracted the attention of theorists for decades. Both Scitovsky (1976) and Frank (1985), for example, have proposed that individuals would be happier had they invested their money in experiential, rather than in material purchases. Nicolao, Irwin and Goodman (2009) have qualified this recommendation and found experiential purchases can bring greater happiness than material purchases if they turn out positive. When they are negative, however, experiential purchases make individuals just as happy as or less happy than material purchases.

This effect is explained by a difference in hedonic adaptation rates for experiential and material purchases. Individuals adapt more slowly to experiential than to material purchases (Nicolao et al., 2009.)

In two studies, we delve deeper into the distinction between experiential and material purchases and show that recall is likely driving the difference in hedonic adaptation rates for material and experiential purchases. More specifically, we show that due to their omnipresence, material purchases are constantly and accurately reminding individuals of their choice. Experiential purchases, on the other hand, reside solely on consumers' minds being prone to both positive and negative reinterpretations. We argue that material purchases provide consumers with constant memory cues and, consequently, faster adaptation rates.

Although there might be compelling reasons to assume memory cues for an event will hinder adaptation to that event (e.g., Shuchter & Zisook, 1993), we believe memory cues can accelerate hedonic adaptation to both negative and positive events. First and foremost, memory cues act as proxy for the experience of an event and consequently facilitates habituation. Second, memory cues reduce uncertainty regarding the nature of the initial event. In its turn, uncertainty reduction will make adaptation to an event faster (Frederick and Loewenstein, 1999.) Memory cues and the uncertainty reduction also allow individuals to accurately remember an event that would otherwise be misconstrued as overly positive or negative (Mitchell, Thompson, Peterson, and Cronk, 1997.)

With this in mind, we propose that adaptation to experiential purchases can be accelerated by providing individuals with memory cues for such experiences, rendering them more similar to material goods in terms of memory. In our first study, 316 undergraduate students were randomly assigned to either a "no memory cue" (control) or a "memory cue" condition. In the control condition, participants were given the choice of an experience (to play a video game, to watch a video-clip or to listen to a song) and asked to answer a 3-item happiness scale (from Nicolao et al., 2009) immediately after consumption. Participants were then instructed to take a 7-minute break. Upon return, they were asked to answer the same scale. Finally, participants in the control condition answered the same scale a day, a week and two weeks after their in-lab choice and consumption of their experience. With that, there are five happiness data points (after choice, seven minutes, a day, a week, and two weeks later) for each participant. Participants in the memory cue condition went over the same procedure, but were exposed to a 35-second snippet of their chosen experience as a memory cue, immediately before asked to answer the 3-item happiness scale.

Data for this study was analyzed through a hierarchical mixed-design model. In the first step, (log-transformed) happiness scores for each participant were regressed onto (log-transformed) time since choice (in minutes). In a second step, the resulting individual slopes were then regressed onto the treatment variable (no memory cue vs. memory cue conditions), each individual's set point, and the interaction between both variables. Set points are a continuous measure of the purchase valence (positive or negative). As predicted, individuals in the memory cue condition adapt faster than those in the control condition, especially when the model is fitted at set point 1 (negative purchases) ($F(1,257) = 7.58, p < .01.$)

Our second study follows a similar procedure to the one employed in our first study. Each one of our 431 undergraduate participants was assigned to one of three between-subjects conditions (no memory cue, memory cue and elaboration condition). The control condition is the same as the one in our first study. However, our participants had to wait for 35 seconds to answer each of the follow-up happiness scales (7 minutes, a day, a week and two weeks later.) This overcomes a possible limitation in our first study. Participants in the elaboration condition were asked to write a short paragraph for 35 seconds, describing their experience instead of being presented with a snippet of it, as in the memory cue condition. Participants in the memory cue condition were presented with exactly the same procedure as the ones in the same condition of study one.

Using planned orthogonal contrast codes, we found a significant interaction between memory manipulation and set point, such that the slopes in the memory cue condition are significantly different from those in the control and elaboration conditions ($F(1,339) = 4.95, p < .05$). However, slopes in the elaboration condition are not significantly different from those in the control condition ($F(1,339) = 0.14, NS$). Moreover, slopes in the memory cue condition are significantly different than those found in the elaboration condition ($F(1,339) = 4.58, p < .05$.)

Taken together, these results provide evidence that, indeed, memory cues accelerate adaptation to experiential purchases. Most importantly, it points towards a major distinction between material and experiential purchases. Individuals seem to adapt more slowly to experiential purchase because they reside solely in their memories. If not stagnant, they are an idealized version of themselves. Over time, experiences approach their central aspects, being overly positive or overly negative (Mitchell et al., 1997.)

The findings reported here have both theoretical and managerial implications. They shed light on the fundamental differences between experiential and material purchases. They also help us to better understand drivers of hedonic adaptation. As for managerial implications, they provide insights into how to extend (or shorten) the life-time of an experience or material purchase.

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The Subjective Sense of Feeling Full: The Role of Metacognitions in The Construction of Satiation

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Consumers frequently consume products and experiences to the point where they no longer enjoy them, a process commonly referred to as “satiation” (Coombs and Avrunin 1977). This happens for a variety of stimuli ranging from the primarily physiological like food (Rolls, van Duijvenvoorde, and Rolls 1984) and sex (O’Donohue and Geer 1985), to the primarily non-physiological like music (Ratner, Kahn, and Kahneman 1999), television programs (Nelson, Meyvis, and Galak 2009), art (Berlyne 1971), homes (Hsee et al. 2009), and cars (Frank 1999). In fact, satiation is often cited as a primary barrier to enduring happiness since, regardless of how satisfying a stimulus might be initially, that satisfaction tends to fade with repetition (Brickman and Campbell 1971).

One way to reduce unwanted satiation is to change the consumption experience. Prior work has shown that people satiate less when they consume slower (Galak, Kruger, and Loewenstein 2009), can more easily perceive the variety of an assortment being consumed (Kahn and Wansink 2004), or can subcategorize the consumption episodes (Raghunathan and Irwin 2001; Redden 2008). These approaches all act as preventive measures that slow satiation. In the present work, we instead explore remedies that can be used *after* satiation has occurred. If people can recover quickly and easily from a satiated state, then satiation poses a smaller problem for consumer enjoyment and happiness. In other words, people can fight satiation by either limiting it in the first place, or reversing it after the fact. We focus on the latter.

Past research has demonstrated that one antecedent to satiation is the degree to which an individual recalls past consumption experiences (Higgs 2002, 2008). We propose that while memory for past experiences is central in informing satiation, the subjective feeling of how much one has consumed is as, if not more, important. Specifically, we propose that when a person finds it particularly difficult to recall past consumption experiences, he or she will feel less satiated, as compared with someone who does not find the

recall task difficult. For example, when a person attempts to recall many past consumption episodes, that recall task is subjectively difficult and he or she will feel like he or she has not consume much--regardless of the fact that he or she may have recalled quite a number of past consumption episodes and thus should feel quite satiated. In contrast, a person who's task is to recall only a few past consumption episodes, will find the task relatively easy and thus infer that he or she has consumed a lot, leading to a heightened degree of satiation.

In Studies 1 and 2 we adapt the classic processing fluency paradigm from Schwartz et al. 1991. Participants recalled either the last 3 or 10 most recent television programs that they had seen (Study 1), or the last 2 or 6 times they consumed their favorite food (Study 2). We found that, presumably because it was subjectively more difficult to recall 10 television programs and 6 eating occasions, participants in the former conditions reported feeling less satiated even though they, in fact, recalled more instances.

In Study 3, satiation was induced in participants by exposing them to a photograph 20 times in a row (without explicit knowledge of how many times they were exposed to the photograph). Following this exposure and a short filler task, participants were asked to recall how many times they had seen the photograph with two different sets of response options created by adapting the paradigm from Schwartz et al. (1985). Participants in the *saw many* (*saw few*) condition answered the question with response options that ranged from "1-3 times" ("1-30 times") to "more than 15 times" ("more than 150 times"). Consistent with the first two studies, participants who were made to feel like they had seen the photo many times (*saw many*), felt more satiated than those who were made to feel like they had seen it few times (*saw few*). In summary, the subjective sense of how much one has consumed was a strong antecedent of satiation.

Across these three studies we demonstrate that feelings of satiation are malleable even after the consumption experience has ended and that they are informed based on the subjective sense of how much one has previously consumed.

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Kindle-ing Memory: Exploring the Encoding Specificity Effects of Stimuli Modality on Recall

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Electronic information is increasingly dominating nearly all facets of consumer life. E-Readers such as the Kindle, iPad, Sony Reader, and Nook have quickly stolen share from print media, with publishers scrambling to adapt to the transition. Similarly, within an educational context students are increasingly consuming their course content in digital form. Within the present research we show that the transition from paper to electronic forms of media may have significant consequences with regards to learning. Specifically, we build on the theoretical framework of encoding specificity to show that matching different sensory modalities used for reading (encoding) information and reproducing (retrieving) this information affects the amount of retrieval -- when a passage is read in one form (either on paper or electronically), participants are able to recall more information when asked to recall the information in the same form vs. another form.

The theory of encoding specificity maintains that retrieved memories can be cued by other information encoded at the time of learning (Tulving and Thompson 1973). While numerous studies provide support for this claim, most have focused on information provided by

the environmental context. For example, Godden and Baddeley (1975) show that scuba divers who learned lists of words either on land or underwater had higher recall for the words when environmental context of retrieval and encoding was the same (i.e., land-land or underwater-underwater). Russo et al. (1999) demonstrate the same phenomenon – that the visual aspect of the environmental can have encoding-specificity effects – in a less dramatic setting. In their experiments, information recognition is higher when the participant is tested in the same room in which information is learned; also a match in the smell of the room for learning and retrieval leads to higher recognition. We contribute to the literature on encoding specificity by moving beyond environmental context. We show that even the subtle matching of the sensory-modality for information learning and retrieval can have significant consequences on memory. We further show that reinstating this stimuli-modality of the learning phase prior to retrieval enhances overall memory.

The purpose of this study was to test the basic hypothesis that a match versus mismatch of the modalities used during encoding and retrieving of information will result in heightened recall. The design was a 2 (encoding modality: paper, electronic) x 2 (retrieval modality: paper, electronic) between-subjects study.

One hundred and thirty-five undergraduate students participated in the study in exchange for course credit. Sessions were run in groups ranging from five to 10 participants. Each participant sat in front of a computer with a folder placed on the table in front of them. All participants began the experiment on the computer following the instructions in an online questionnaire. After an initial page of general instructions, half of the participants were instructed to open their folder and take out the piece of paper containing the passage and read it. The other half of participants were given a link in their online questionnaire to an identical electronic version of the passage. When finished reading the passage, participants were instructed to either answer questions regarding the information from the passage on a paper questionnaire or on the computer.

Of primary interest to us is the amount of information recalled from the passage. The passage contained 11 identifiable pieces of information. The sum of items recalled by participants ranged from zero to eight. We predict a two-way interaction between encoding and retrieval modalities, wherein a match of encoding and retrieval will lead to significantly higher recall than a mismatch. A 2 x 2 ANOVA on the total number of items recalled showed that neither the main effect of encoding modality, nor the main effect of retrieval modality was significant, but their two-way interaction was ($F(1, 131) = 9.16, p < .01$). Planned contrasts show that when the passage is read on paper, participants recall significantly more information when retrieval is on paper ($M = 4.22$) than when on the computer ($M = 3.40; t(131) = 2.04, p < .05$). Similarly, when the passage is read on the computer, participants recall significantly more information when retrieval is on the computer ($M = 4.03$) than when on paper ($M = 3.15; t(131) = 2.24, p < .05$).

In prior work on encoding specificity, reinstating the learning context at retrieval has significant consequences on information recalled (Smith 1979). In study 2, prior to recall, we reinstate the stimulus-modality context of the encoding phase. Specifically, participants in the context reinstatement condition were told to take the paper next to their computer and draw anything they wished for one minute.

In contrast to study 1, all participants in study 2 read the passage on paper. The design for study 2 was a 2 (retrieval modality: paper, electronic) x 2 (context reinstatement: yes, no) between subjects factorial design. Recall was coded in an identical manner to study 1. We conducted a 2 x 2 ANOVA on the total number of items recalled. Neither the main effect of retrieval modality nor the main effect of context reinstatement was significant; however, the interaction was significant ($F(1, 152) = 5.02, p < .05$). Planned contrasts revealed that when context was not reinstated the pattern of results replicates from study 1 in that participants recalled significantly more information when retrieval modality matched encoding modality ($M_{\text{Match}} = 4.74, M_{\text{Mismatch}} = 4.00; t(152) = 2.13, p < .05$). When the context is reinstated prior to retrieval, there is no significant difference between encoding modalities ($M_{\text{Paper}} = 4.50, M_{\text{Electronic}} = 4.85; t(152) = 2.13, p < .05$), indicating that the context reinstatement was effective in increasing information recalled.

A field study is planned next which will test for student performance on paper exams contrasting students who have chosen to adopt a printed version of the textbook and those who have chosen to use the electronic version.

The results of our research could have serious implications for adoption of electronic materials by students and by educational institutions.

5.4 Individual Papers: Gender, Culture, and Age Effects

Room: Oak Room

Chair: Tina M. Lowrey, University of Texas at San Antonio

Attention to Status Products: An Evolutionary Approach

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Sex differences in minimum parental investment have given rise to sex differences in mate preferences (Bjorklund & Shackelford, 1999; Trivers, 1972). Men look for mates who display youth and health (Buss & Schmitt, 1993), both qualities of female fertility (Buss & Barnes, 1986). Women aim to select a mate with strong genes who is also able to invest in her and her offspring (Bjorklund & Shackelford, 1999; Brase, 2006; Buss, 1989). For both sexes, reproduction involves two goals. Opposite sex individuals need to be screened for desired mate qualities (mate *selection* goal) and, simultaneously, men and women need to demonstrate their own mating value to the potential partners they are interested in (mate *attraction* goal). Evidence suggests that women's mating goals are activated around ovulation (Gangestad et al., 2007). For instance, near ovulation women are attracted to more masculine, taller and more socially dominant men (Gangestad, Thornhill, & Garver-Apgar 2005) and they are willing to pay more for products that increase their attractiveness (Hill & Durante, 2009). For men, exposure to mating cues—like (images of) sexy women—may trigger a mating goal (Maner, Gailliot, & DeWall, 2007).

Given that women tend to prefer men with social status (Colarelli & Dettmann, 2003) and financial resources (Li et al., 2002), we expect them to be sensitive to signals of status and wealth when their mate *selection* goal is activated. This should translate into a perceptual readiness to notice status signals, including status products, which has not been demonstrated before. In response to this, men in a mating mindset attach more importance to their own social status (Roney, 2003) and display an increased intention to conspicuously consume luxury products (Griskevicius et al., 2007). Consequently, for men, the activation of a mate *attraction* goal may also trigger attention to status products. Taken together, although previous research suggests that status products are positively evaluated in a mating context, the question remains unanswered whether the activation of a mate selection (attraction) goal spontaneously directs women's (men's) *attention* to these products. In two studies, we aim to address this question.

In study 1 we test whether women's attention to status products increases around ovulation, compared to other phases in their menstrual cycle. We expect to find this effect only for women who do not use hormonal contraceptives, such as the pill, as they suppress the regular flow of hormones. In addition, we test whether attention to status products is predicted by levels of estrogen

(positively) and progesterone (negatively), consistent with previous findings that hormones underlie cycle effects on mate preferences (e.g., Lukaszewski & Roney, 2009; Roney & Simmons, 2008).

We exposed pill users and normally cycling women to ten visual displays, each consisting of six products (cf. Roskos-Ewoldsen & Fazio, 1992). One product in each display was a status product (sports car, exclusive watch,...), the remaining products were functional products (bucket, umbrella,...). Each display was shown for one second after which participants listed the objects they had noticed in the display. Next, participants reported the start of their last menstruation (cycle day 1). Based on their cycle day, we divided participants in three cycle phase groups (menstrual, fertile or luteal phase; cf. Miller, Tybur, & Jordan, 2007), and we estimated levels of estrogen and progesterone in normally cycling participants (cf. Martin & Behbehani, 2006).

For normally cycling women, cycle phase has a significant effect on the proportion (taking into account the total number of products listed) of listed status products. Women around ovulation notice more status products than women in both other phases do. As expected, pill use moderates the effect of cycle phase on the proportion of listed status products. Additionally, higher levels of estrogen lead to larger proportions of listed status products and progesterone levels are associated with smaller proportions of status products.

In study 2, we assess whether men's attention to status products increases after exposure to a mating cue. We randomly assigned male students to one of two conditions: a condition in which the female experimenter was either plainly (control condition) or sexily dressed (mating cue condition). Participants entered the lab individually and interacted briefly with the experimenter before engaging in a visual attention task (cf. study 1). Sexy clothing should trigger the goal of displaying social status, which should render status products in the visual display more salient than functional products (cf. Moskowitz, 2002). Hence, men in the mating cue condition should notice more status products than men in the control condition. Consistent with our prediction, the presence of a mating cue has a significant effect on the proportion of listed status products. Attention to status products is significantly higher after exposure to the sexily dressed experimenter than after exposure to the plainly dressed experimenter.

In sum, our research is the first, to our knowledge, to show that the activation of mating goals not only triggers men's interest in status products and women's interest in men with status, but also directs their *attention* towards status products. This difference is not only important from a theoretical perspective as it testifies to a spontaneously triggered association between mating goal activation and concern with conspicuous consumption, but also from a practical perspective. For instance, attention may increase the likelihood of purchase. Future research might address whether women's heightened attention to status products during ovulation leads to increased spending intentions for these products. Similarly, the presence of a sexy woman in a shopping environment may suffice to increase men's willingness to pay for luxury items. Finally, our findings contribute to the literature on conspicuous consumption, as they show that individuals' attention to conspicuous displays of status may fluctuate depending on the goals that are activated.

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Men Exaggerate and Women Impression Manage: Gender Differences in Types of Socially Desirable Responding and the Cognitive and Motivational Factors That Underlie Them

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Whether and how people engage in socially desirable responding – the tendency of people to portray themselves in more favorable light on survey questionnaires than their thoughts or actions may actually warrant – is a topic of considerable interest to scholars of marketing and consumer behavior, both from theoretical and methodological standpoints (Fisher 1993; Lalwani et al. 2006). However, previous research reports inconsistent findings on the link between gender and types of socially desirable responding. Moreover, previous research suggests that men and women differ on vast number of behaviors, judgments, and choices, most of which are ascribed to evolutionary or cultural differences between the two genders. It is important to understand how men and women differ on socially desirable responding, as these differences may shed new insights on the gender differences previously uncovered.

Accordingly, the purpose of the current research is to explore in more detail the possible connections between gender and types of socially desirable responding, the underlying processes, and factors that impact the strength of the relations. We posit that men and women will engage in distinct forms of socially desirable responding. We expect that men will tend to engage in self-deceptive enhancement, the tendency to report exaggerated beliefs of one's competence, skills, and abilities more than women. In contrast, we expect that women will tend to engage in impression management, the tendency to provide normatively appropriate responses to look good, to a greater degree than men.

Beyond this general set of hypotheses, however, there are still important unanswered questions regarding the processes that may underlie these links. In particular, little is known about the motivational links between gender and socially desirable responding. As noted, previous research reports inconsistent findings on the link between gender and socially desirable responding. These inconsistent findings allude to the existence of variables that may mediate or moderate these relationships. For instance, it is possible that these relationships are stronger for certain kinds of people than for others. Hence, another objective in this paper is to propose and test such mediating and moderating variables. One possibility, which we investigate in the studies to be presented, is that regulatory focus underlies these effects, and that the strength of the relations depends in part on the cognitive resources available to the participant.

Regulatory focus theory is a theory of self-regulation that proposes two distinct foci: a promotion focus that is primarily concerned with maximizing positive outcomes and a prevention focus that is primarily concerned with minimizing negative outcomes (Higgins 1997). People who are promotion focused eagerly pursue gains or successes. Focusing on accomplishments, achievements, and the pursuit of ideals, they are oriented towards fulfilling their hopes and aspirations and they scrutinize their social world for information that bears on the pursuit of success. In contrast, people with a prevention focus strive to avoid negative outcomes. Driven by the need to feel secure and to meet their obligations, these individuals are primarily concerned with preventing failures or losses, and their information processing and interpersonal tactics are geared towards avoiding undesirable outcomes (Higgins 1997).

We explore the possible interrelations between gender, regulatory focus, and socially desirable responding. Our overarching hypothesis is that regulatory focus mediates the relation between gender and socially desirable responding. More specifically, we hypothesize that a promotion focus mediates the relation between masculinity and self-deceptive enhancement, and a prevention focus mediates the relation between femininity and impression management.

We were also interested in identifying boundary conditions to the relation between gender and socially desirable responding. Specifically, we were interested in determining whether the relations just proposed depend on the cognitive resources available to the individual. Impression management is considered to be a controlled, deliberate attempt to tailor behavior to either a real or imagined audience (Leary and Kolwalski 1990), requiring significant cognitive resources (Lalwani 2009). In contrast, self-deceptive enhancement is considered a spontaneous, automatic response that involves little cognitive deliberation, and self-deceptive enhancers actually believe their responses are truthful (Paulhus 1991). Hence, we proposed that gender differences in impression management, but not self-deceptive enhancement, will disappear when the cognitive resources available to the individual are low (vs. high).

Seven studies provide robust support for the framework we have proposed. Our research shows that men and women differ in their tendency to engage in socially desirable responding. Some past studies have implied that women are more prone to socially desirable responding than men. Our research qualifies these findings and shows that both men and women engage in socially desirable responding, but in different ways. Across the seven studies, we used different measures of gender, and found converging evidence that women have a greater tendency to engage in impression management, whereas men have a greater tendency to engage in self-deceptive enhancement. Importantly, these relationships were found to be truly distinct, and independent of gender differences in cultural orientation uncovered by previous research (Cross and Madson 1997). Moreover, self-deceptive enhancement among men (vs. women) was shown to lead to better performance on trivial pursuit tasks. That is, the relationship between gender and task performance was mediated by self-deceptive enhancement.

Our research also indicates that regulatory focus mediates these relations. Because men's stronger promotion focus draws their attention to the self's positive distinctiveness, they tend to engage in greater self-deceptive enhancement than women. In contrast, because women's stronger prevention focus directs their attention to avoiding loss of face loss in social situations, they tend to engage in greater impression management than men. We also identified a boundary condition to the relationship. Specifically, the gender differences in impression management, but not those in self-deceptive enhancement, disappeared when cognitive resources of participants were limited.

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The Effect of Lifestyle Depletion on Ethnic Teen Consumer Behavior

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Individuals increasingly feel burdened by the stress and pressure of life, such as worries about money, job stability, and family responsibilities (Peck 2010). A recent survey by the American Psychological Association found that 42% of Americans perceived that their stress level increased compared to the year prior (APA 2009). In addition to chronic stress affecting consumers' health (e.g., Epstein 2003), these burdens can influence individuals' ability to make sound consumer decisions. For example, people have a limited amount of regulatory energy available to exert self control (Baumeister et al. 1998), and when individuals are depleted from exerting self-regulatory resources, they are more vulnerable to lapses in self control (Baumeister and Vohs 2007). We propose that when individuals cope with the day-to-day stressors of life, they are using self-regulatory resources, which may result in consumer decisions that do not reflect high levels of self-regulation.

We deliberately identify ethnic teen financial decision making as a fruitful context in which to examine the impact of lifestyle pressures on regulatory depletion and consumer behavior because 1) consumer socialization begins during adolescence (Moschis and Churchill 1978) and 2) teens experience significant stress from school, family, and finances, at much higher levels than their parents realize (APA 2009). Lifelong ethnic minority status can also add a layer of chronic stress to an individual's life, and this stress impacts individuals across education and income levels (e.g., Epstein 2003). Further, we are interested in financial decision making, such as interest rate acceptance and saving choices, among ethnic minorities. The personal savings rate for Americans has been on the decline, and in the last decade has fallen to the 1 – 3% range (Jones 2010). In particular, African-Americans and Hispanic-Americans are less likely than Caucasians and Asian-Americans to contribute to their company's 401K program and when they do contribute their savings rates are lower (Byrnes 2009). Thus, we attempt to uncover daily stressors affecting the early development of these types of decision patterns and consumption choices among teens.

Through two studies, we examine which factors encourage ethnic teens to consume within their means versus those factors that influence over-consumption behavior. We propose that minority youth experience significant regulatory resource depleting influences. We refer to these depleting social and family stressors as *lifestyle depletion*. Excessive demands on an individual's time and energy can lead to role overload (Reilly 1982) and ultimately higher stress levels (Kahn et al. 1964). We expect that teens devoting more resources towards overcoming negative stereotypes, coping with lower levels of self-esteem, or taking on additional family burdens (i.e. lifestyle depletion) are more likely to conform to negative observed consumer behavior by saving less money or spending more on non-essential goods. In contrast, teens who display higher levels of self esteem, maintain a good relationship with their parents, and do not feel taxed with additional family financial burdens (despite experiencing such burdens), experience lower levels of lifestyle depletion and they are more likely to display more positive financial behaviors (i.e. saving more money).

In study 1, we conducted 19 interviews with African-American and Hispanic teenagers ages 13 to 18 ($M = 14$); to better understand the types of lifestyle stressors they encounter, the extent to which their experiences contribute to lifestyle depletion, and how their unique life experiences influence their consumer behavior. We followed hermeutic procedures (Thompson 1997) for the qualitative data analysis and three influencing behavioral factors emerged: social environment, family relationships, and stereotypes/self esteem. We categorized respondents as either displaying positive (saving more money) or negative (saving less money) financial behaviors. Teens displaying positive behaviors demonstrate lower levels of lifestyle depletion and make relatively more rational consumer decisions as exhibited by being willing to save money instead of spending it immediately, and by providing examples of careful shopping habits. They are not overwhelmed by their daily responsibilities. Their behavior seems to be driven by a healthy relationship with both parents, higher levels of self-esteem, and the ability to overcome negative racial stereotypes. They are less likely to be burdened with household pressures such as paying bills or raising younger siblings. They possess sufficient resources to process information in their environment to make better consumption decisions. In contrast, teens displaying negative financial behaviors expressed having very high levels of family and social pressures (e.g., paying family electricity bills, avoiding gang violence) and are more likely to conform to negative observed behavior by saving less money or spending more on non-essential goods. In addition, these teens tend to attribute their pessimism about the future to their ethnicity, often because of negative stereotypes.

In study 2, we extend our findings and examine the effects of lifestyle depletion on teens' savings rate and credit card usage. We surveyed 121 Caucasian, African American, Hispanic and Native American teenagers ages 15 to 18. We measured level of lifestyle depletion based on a combination of items measuring stress (Reilly 1982) and items evolving from the interview process. We asked participants to estimate the proportion of their money they would spend versus save, assuming they earned a good income from a summer job. We next asked them to imagine shopping for various products popular with teens, using a fixed budget, and to identify the maximum interest rate they would accept, if they could wait to pay for the items 12 months later. We found that ethnic minorities

(compared to Caucasians) were significantly more likely to experience lifestyle depletion, ($\beta = -.197, t = 2.01, p < .05$). Similar to study 1, we found that having a good relationship with both parents significantly increases savings rate ($\beta = .180, t = 1.93, p < .05$). As expected, as lifestyle depletion increases, savings rate significantly decreases ($\beta = -.227, t = 2.35, p < .05$) and the interest rate the teens were willing to accept for purchases also increases ($\beta = .206, t = 2.20, p < .05$). Finally, self-esteem mediated lifestyle depletion and financial decision making; as lifestyle depletion increases, self-esteem decreases. Collectively, the two studies support our premise that high levels of lifestyle depletion can negatively affect teens' consumer behavior.

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Children's Brand Name Preference: Considering the Role of Phonetic Symbolism

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Phonetic symbolism implies that sounds (phonemes) can convey meaning on their own, irrespective of their configuration with a word (Sapir, 1929). In recent years there has been a growing interest in phonetic symbolism in marketing literature (for example, Coulter and Coulter, 2010). In particular, phonetic symbolism principles have been applied to investigating the development of meaningful brand names (for example, Lowrey and Shrum, 2007) as like all words, brand names are made up of a series of phonemes. Theorists suggest that marketers can use these phonemes to provide consumers with a cue for product or brand attributes (Yorkston and Menon, 2004).

This research extends current literature, examining phonetic symbolism in the context of marketing to children, who until now have not been the focus of similar research within the marketing discipline. As children have not yet acquired adult-like language skills (Piasta and Wagner, 2010), and therefore, may not attach the same meaning to phonemes as adults, this research will provide a valuable contribution to this growing research area. This paper presents the results of two experiments designed to examine the notion that children can draw meaning from phonemes.

Experiment 1 aimed to replicate the results obtained by Yorkston and Menon (2004) by testing for phonetic symbolism effects across two product attributes within a single product category: ice-cream. Fifty-one children aged 6 – 12 years of age who attended an Out Of School Hours (OOSH) centre located in a major city on the Australian eastern seaboard participated in the experiment. Consent was sought from both the parent and the child prior to participation.

Participants received four word pairs that differed only on the front/back vowel distinction (for example, *Fipple/Fupple* or *Frish/Frosh*). Twenty-five participants were asked to specify their preference between each word pair as a brand name for a 'creamy, rich and smooth' ice-cream while twenty-six participants indicated their preference between each word pair for an 'icy and sweet' ice-cream. Experimental materials were administered individually and all materials were read to participants to ensure phonemes were presented as intended.

Front versus back vowel sound effects. It was expected that front vowel sounds would be preferred as a brand name for an ice-cream described as 'icy and sweet' and back vowel sounds would be preferred for an ice-cream described as 'creamy, rich and smooth'. To test this assumption, continuous dependent variables were created that represented the proportion of front and back vowel sounds selected. MANOVA was used to test the overall effect of product attributes on participant's preference for words containing either

front or back vowel sounds. Main effects were found to be significant ($F(1, 49) = 8.3, p = 0.006$), as were individual differences ($p < 0.01$). Children preferred back vowel sounds for the 'creamy, rich and smooth' ice-cream and front vowel sounds for the 'icy and sweet' ice-cream.

Experiment 2 extends Experiment 1 by testing for phonetic symbolism effects across four child-oriented products. Ninety-two children aged 6 – 12 years of age who attended an Australian OOSH centre participated in the experiment. Consent was sought from both the parent and the child prior to participation. Children who participated in Experiment 2 did not participate in Experiment 1.

To identify products that differed on the dimensions under investigation, namely size, weight, and hardness, six children from the target population were asked to identify five: small/big, hard/soft, and heavy/light toys. The lists produced were compared with four juxtaposed products being selected: teddy bear and squishy ball (small, soft, and light) and dolls house and outdoor play equipment (big, hard, and heavy). As all products achieved top of mind recall they were deemed appropriate for the study.

Following the procedure used in Experiment 1, participants received four word pairs that differed only on the front/back vowel distinction (for example, *Illy/Ully* or *Nellen/Nullen*). Participants were asked to specify their preference between each word pair as a name for each test product; therefore, a within-subject experimental design was employed. The order of presentation for both the word pairs and product stimuli was varied across participants. After preference for words was obtained, participants indicated the perceived size, weight, and hardness of the selected test products.

Manipulation Checks. The perceived size, weight, and hardness for the teddy bear, squishy ball, and play equipment occurred as intended. A clear consensus was not obtained for the doll's house, therefore, internal analysis was conducted for this condition.

Front versus back vowel sound effects. It was expected that front vowel sounds would be preferred for the teddy bear and squishy ball (smaller, softer, and lighter) and back sounds would be preferred for the outdoor play equipment (larger, heavier, and harder). To test this assumption, continuous dependent variables were created as per Experiment 1. Paired *t*-tests were then conducted to determine whether there were significant differences between preferences for front versus back vowel sounds for each product. In all instances, results were as expected with front vowel sounds being preferred for products perceived as small and light (albeit, only marginally for teddy bear) and back vowel sounds being preferred for products perceived as big and heavy.

With this research being the first known marketing study designed to investigate phonetic symbolism utilising a child sample, results are expected to make a valuable contribution to marketing theory. Results provide further support for the existence of phonetic symbolism, with children demonstrating the same sound-stimuli relationships found in adult-oriented studies.

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5.5 Individual Papers: That's Disgusting! Contamination Effects on Choice and Consumption

Room: Spruce Room

Chair: Iana Castro, Arizona State University, USA

You Eat What You Are: Disease Concerns and Food Origin Preferences

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Infectious disease-causing pathogens have been a recurrent problem throughout human evolutionary history, and continue to threaten us today. These pathogens present a significant threat to survival and general well-being. Although the body's immune system is integral to managing these threats, its use is also physiologically costly. The immune system can therefore be considered the body's last line of defense against disease, fighting infection only if it cannot be avoided in the first place. Research on front line defenses has demonstrated the presence of cognitive biases that attune people to the potential for disease within interpersonal settings, biases representing a "behavioral immune system" (Faulkner, Schaller, Park and Duncan 2004; Schaller and Duncan 2007). For example, people primed with disease concerns visually attend to and show more rapid avoidance tendencies towards individuals who bear heuristic cues to disease such as physical abnormalities (Ackerman et al. 2009; Mortensen et al. 2010). Given the high cost of false negative identification errors in these contexts (i.e., not responding to disease when it actually does exist), these biases promote overall functional outcomes, even in situations where such behaviors are rationally incorrect (which may in fact be the majority of situations).

For a behavioral immune system to function effectively, the body must respond not only to interpersonal vulnerabilities but other vulnerabilities as well. A prime source of vulnerability to disease involves the act of physical consumption, or ingestion. Ingestion bypasses the first physical line of pathogen defense (the skin), making infection more likely. Thus, food represents a high potential threat for disease transmission. This is clearly shown in people's disgust responses to food that is rotten, raw, or even food that comes into contact with other offensive (but actually innocuous) substances (e.g., Morales and Fitzsimons 2007; Rozin and Fallon 1987).

Influences on food preferences and consumption patterns are an important area of investigation in the consumer literature (e.g., Scott, Nowlis, Mandel and Morales 2008). We suggest that the origin of food products may play a critical role in heuristic, disease-based responses to those products. Familiar, or domestically-produced, food is likely to be made with ingredients (and hitchhiking germs) that consumers have been repeatedly exposed to and for which consumers have developed adequate immune responses. Food preparation (e.g., cooking) in those environments is also likely to eliminate most threatening pathogens. These ameliorating circumstances do not necessarily exist with foreign foods. Foreign foods may carry novel (to the immune system) pathogens as a result of unique growing and storage conditions, preparation techniques, and also as a result of the regionally-specific pathogens born by individuals preparing the food. Even if much of the true threat signaled by these features is minimized in modern society, relevant heuristics may still influence food preferences.

Thus, if the behavioral immune system is sensitive to pathogen threat from food, biases may extend to the origin of those foods. Here, five studies document that chronic and experimentally-activated disease concerns increase preference for familiar (within-culture) foods and decrease preference for unfamiliar (between-culture) foods in U.S. consumers.

Study 1 investigated preferences for food origin as a function of people's chronic perceived vulnerability to disease (PVD; Faulkner et al. 2004). A difference score between 16 domestic and foreign foods (e.g., Chips Ahoy cookies, cookies from an Asian supermarket) correlated with PVD, suggesting that higher impressions of disease vulnerability were associated with a preference for familiar, domestic food. In Study 2, we correlated PVD with actual food choices in a university cafeteria. A marginally significant effect again demonstrated that higher disease vulnerability was associated with actual domestic food purchases.

In Study 3, participants viewed a slideshow designed to activate either disease concerns or not (Ackerman et al. 2009), and then rated how appealing different familiar and foreign foods were (e.g., hamburger, pizza, paella, caviar). A significant food origin by condition interaction revealed that the disease prime led people to find foreign foods less appealing and domestic foods more appealing.

The last two studies investigated the role of disease concerns on food valuation by means of the endowment effect. In Study 4, participants in a seller frame condition were given a plate of either generic chocolate chip cookies or sesame cookies from an Asian supermarket, and then presented with one of the two slideshows used in Study 3. Sellers then made a series of choices to assess whether they would sell their cookies for different dollar values. Additionally, participants in a buyer frame condition received the option to buy one type of cookies, but only after the slideshow manipulations were completed. A prime X frame X food origin interaction showed that participants primed with disease endowed familiar but not foreign cookies (sellers wanted to sell the foreign but not domestic cookies at reduced prices). In contrast, participants in a control condition exhibited endowment effects for both domestic and foreign cookies. Study 5 used the same method as above, however the cookies were presented in the original cellophane wrappers. If these wrappers serve as a heuristic, preventive cue to disease transmission, their presence may eliminate the food origin effects found previously. Indeed, when food was enclosed in wrappers, people endowed both familiar *and* foreign cookies.

In sum, concerns about infectious diseases appear to alter people's sensitivity to the origin of food products. We found that both chronic and temporarily activated disease concerns lead people to find familiar, domestic foods more appealing and unfamiliar, foreign foods less appealing, to be more likely to buy familiar foods, and even to endow familiar (but not foreign) foods with higher monetary value. Interestingly, when food was presented in a sealed package, it became immune to the differential effects of origin. These findings highlight how a particularly important and currently relevant adaptive problem—the threat of contagious disease—is managed through selective food preferences. Not only do these studies provide evidence for functional cognitive specialization, they also speak directly to the manner in which perceived vulnerabilities shape consumer food choices and steps that might be taken to alleviate such decision biases.

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Moral Violations Reduce Consumption

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Do moral violations reduce consumption? At a recent luncheon address about inaction in the face of genocide (Slovic, 2007) several of the authors found their appetites unexpectedly diminished. The contemplation of such extreme moral violations as genocide seemed to arouse feelings of disgust that rendered otherwise appealing entrees unappetizing.

There are clear associations between moral violations and disgust. People who experience more disgust perceive moral violations as more severe than people who experience less disgust (Inbar, Pizarro, Knobe, & Bloom, 2009; Jones & Fitness, 2008; Schnall, Haidt, Clore, & Jordan, 2008). And exposure to moral violations arouses disgust (Chapman, Kim, Susskind, & Anderson, 2009; Rozin, Haidt, & McCauley, 2008).

Because moral violations arouse disgust, and because disgust is an evolutionarily important signal of contamination (Darwin, 1872; Tomkins, 1963), moral violations should reduce oral consumption. We examined this prediction in two experiments by testing whether viewing a film portraying moral violations of genocide reduces food and beverage consumption.

University undergraduates ($N = 89$; 53 female) participated in exchange for \$10 in a study regarding “multi-modality consumption experiences.” Participants were randomly assigned to view one of two 6-minute film clips: a neutral documentary about economic changes in Ghana or, in the moral violation condition, a documentary about genocide in Sudan.

Just before the film began, participants were asked to open an 89g package of M&M’S® and were invited to eat “as few or as many” as they wanted. Immediately after the film, participants inserted their remaining candy in an envelope.

As predicted, participants consumed fewer M&M’S® while watching the genocide documentary ($M = 12.52\text{g}$) than the neutral documentary ($M = 18.30\text{g}$), $t(87) = 2.27$, $p < .03$. Being exposed to evocative moral violations thus diminished people’s consumption of food.

We next sought to replicate the finding that moral violations reduce consumption with a less indulgent substance: bottled water. We hypothesized that because moral violations reduce consumption by arousing disgust, moral violations should reduce consumption of even bland, non-indulgent water.

University students ($N = 142$; 90 females), participating in this and other unrelated studies in exchange for \$10, were told they would sample and provide feedback about various items, including music, pretzels, bottled water, and films. Participants began by sampling and evaluating salty pretzels, which gave credence to the cover story and piqued participants’ thirst (e.g., Balcetis & Dunning, 2010). Participants were next given a 500mL bottle of water and asked to listen to 30 seconds of music while taking “just one small sip of water.” The water was then moved beyond participants’ reach while they sampled and evaluated another type of pretzel.

The water was returned to participants to be evaluated again. They were asked to watch a film clip and “drink the water as you would if you were watching a movie at home or in a theater.” Similar to Experiment 1, participants watched either the neutral or the genocide documentary.

We also wanted to examine the effect of moral violations implied by the bottled water itself. Accordingly, we manipulated whether the label on the water bottle was associated with moral violations. In the neutral condition, the bottles were labeled “Water: Just H2O.” In the moral violation condition, the water bottles were labeled “Wall Street: Water for Powerful People.” At the end of the experiment, participants provided open-ended descriptions of the labels, which afforded manipulation checks.

We reasoned that “Wall Street” water would conjure moral violations of greed and power, particularly given the study’s timing during the midst of the economic recession that began in 2008—in which Wall Street activities played no small part. Witness a *New York Times* headline during the week the experiment was conducted that referenced the Wall Street “Apostles of Greed” (Greenhouse, 2009). To check our assumption, two individuals coded participants’ open-ended responses about the product label for mentions of greed, power, wealth, and general attitude expressed (negative, positive, or both; 81% agreement overall, disagreements resolved by discussion). The ratings of greed, power, wealth, and negative attitude were averaged into a single index that was, as expected, higher for Wall Street ($M = 0.95$) than for Water ($M = 0.26$), $t(140) = 7.44$, $p < .001$. Also, a separate sample of participants ($N = 229$) rated how well (1=*not at all*, 7=*a great deal*) greed, intelligence, wealth, competition, success, stress, indulgence, happiness, calm, and kindness characterized (a) the labels or (b) the type of person who would drink the water. Indices of label evaluation ($\alpha = .77$) and person evaluation ($\alpha = .71$) were created (reverse scoring greed, wealth, competition, stress, and indulgence). As intended, Wall Street ($M = 3.13$) and people who drank it ($M = 3.07$) were rated less favorably than Water ($M = 4.76$) and the people who drank it ($M = 4.88$), $t(113) = -20.19$ and $t(114) = -24.08$, respectively, both p ’s $< .001$.

As predicted, participants drank more water labeled “Water: Just H2O” and while viewing a neutral documentary ($M = 192.23\text{mL}$) compared with the other three conditions (weighted $M = 153.14\text{mL}$), $t(138) = 2.41$, $p < .05$, none of which differed significantly from each other, t ’s < 1 . This pattern also produced a significant interaction in a 2 (label: Wall Street, Water) \times 2 (film: genocide, control) ANOVA, $F(1, 138) = 4.44$, $p < .05$. Neither main effect was significant, F ’s < 1 . In other words, not only the previous video but also the brand itself triggered moral disgust and, as a result, reduced consumption.

Two experiments support the hypothesis that moral violations reduce consumption. People ate fewer M&M’S[®] (Experiment 1) and drank less water (Experiment 2) while watching a film about moral violations of genocide, and when the product itself was associated with moral violations (Experiment 2). These findings imply that moral disgust influences oral consumption of food and water in ways similar to physical disgust, and thus provide further evidence of the associations between behavior, emotions, and moral intuition.

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The Effects of Brand and Display Characteristics on Purchase Intentions for Products with Limited Availability

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Retail executives know that the presentation of their products matters. The general belief is that pristine aisles with fully stocked shelves and perfectly organized product displays can increase purchase intentions, whereas cluttered aisles with empty shelves and messy displays lower them. Although retailers currently strive to keep shelves and displays fully stocked and organized in the belief that this will maximize sales, it may be the case that this, in fact, is not the best way to increase revenues. In this paper, we examine whether, and under what conditions, the organization, appearance, and number of products on retail shelf displays will impact purchase intentions for those products.

By looking at a product display, consumers are exposed to the type of product, whether the brand is familiar or unfamiliar, how many products are available, the appearance of the product display, and the prices associated with the product. While each of these cues provides independent information about the products being displayed, we study the interactive effects of these cues on consumer inferences and purchase intentions. For example, imagine a consumer at a supermarket who is considering buying a product from a disorganized display with only one product left on the shelf. Will the limited product availability and appearance of the display interact in a way that systematically influences the consumer's preference for the product? Prior research in the scarcity literature suggests that limited availability attributed to market conditions (i.e., popularity) should increase the desirability of a product (Verhallen 1982; Verhallen and Robben 1994). However, most of this research has not focused on how the availability of the product interacts with other important cues in the retail environment to affect purchase intentions, nor how cues in the retail environment influence perceptions of scarcity. Our research thus looks at how cues in the retail environment, such as the appearance of the shelf or the familiarity of the brands on the shelf, interact with the availability of the product to influence purchase intentions. In the proposed scenario, the fact that the display is disorganized and there is only one product left may suggest that others are buying the product; therefore, consumers may infer that the limited availability is due to popularity and preference for the product may increase. However, if consumers are familiar with the brand, then they will use other information about the product to make their decision, thereby reducing the effect of such cues and the availability of the product on purchase intentions.

Prior research on shelf displays has focused on topics such as assortment and assortment reductions, amount of category space, number of stock keeping units, amount of space allocated to a product, shelf locations, the effectiveness of product displays, and stockouts (e.g., Chandon, Hutchinson, Bradlow and Young 2009; Turley and Milliman 2000; Fitzsimons 2000). However, little research has addressed the interaction of retail cues such as the appearance of the shelf display and the availability of the product on consumer preference.

Our research offers three important contributions. First, we examine how specific cues in the retail environment, such as the messiness of the shelf display, interact with the availability of the product (i.e., the number of products available on display) to influence perceptions of product popularity and purchase intentions. Second, we examine how the availability of the product interacts with characteristics of the product itself, such as its familiarity and whether or not it is a food product, to influence purchase intentions. Third, we show how other characteristics of the product, such as its price, moderate these effects and how these effects translate into the impressions of the store that sells them. In so doing, we are able to develop a comprehensive theoretical model of

how scarcity operates in the retail environment, identifying when it increases purchase intentions, when it decreases purchase intentions, as well as the underlying mechanisms driving these two divergent outcomes.

Across a series of five studies, we find when consumers infer that products are limited in availability due to popularity, consumers are more likely to buy these products because of quality perceptions, but only when they are unfamiliar nonfood brands. We also find that products with limited availability are less likely to be purchased when they are familiar food brands because of contamination effects. In addition, we find that the price of the product is an important moderator of these effects.

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5.6 Individual Papers: Brands are People Too: The Anthropomorphism of Brands

Room: Maple Room A

Chair: Tracy Harmon, University of Dayton

Do Brands Like Us? The Perceived Liking of the Brand for the Self and Brand Attraction

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Do brands like us? In this research, we draw from research on interpersonal attraction and impression management to explore the potential for a dyadic component to brand relationships. We propose that if brands truly serve as active relationship partners (Fournier 1998), brand attraction should depend not only on the extent to which the consumer likes the brand, but also on perceptions of the extent to which the brand likes the consumer—a concept we refer to as *perceived brand liking*. Specifically, we hypothesize that when consumers believe that a brand likes them, they are more likely to be attracted to that brand in return. Drawing from the interpersonal attraction literature, which shows that people are attracted to those whom they believe like them (Eastwick and Finkel 2009), we examine two ways brands may signal liking for the consumer. First, because partner actions are a primary source of perceived liking in interpersonal relationships (Backman and Secord 1959; Byrne and Rhamey 1965), the friendly behaviors of brand employees or users may serve as one cue of the brand's liking for the self. Second, because people expect that similar others will like them and these expectations of liking lead to interpersonal attraction (Condon and Crano 1988), we propose that perceived similarity to the brand or other brand users may serve as a more subtle cue of liking from the brand. Thus, we predict that consumers will be more attracted to brands that exhibit cues of liking (vs. a neutral control), either through friendly brand actions or self-brand similarity (H1).

We also propose that certain cues of brand liking will be more diagnostic than others when consumers have reason to doubt their truth value or sincerity. There are several reasons consumers may doubt the sincerity of brand liking cues. First, they may question the brand's motives; for instance, consumers with high persuasion knowledge (Friestad and Wright 1994) may believe that cues of brand liking are simply marketing tactics intended to persuade them. Second, these cues may not correspond with consumers' self-views; for instance, consumers with low self-esteem do not expect others to like them (Swann 1987) and thus may be skeptical of brand liking cues. Further, when consumers have reason to doubt the sincerity of brand liking cues, we propose that self-brand similarity will be perceived as more diagnostic of the brand's true liking than friendly brand actions. Specifically, brand actions may be perceived as more controllable, and thus more likely to be strategically managed by the brand to convey a desired impression (Goffman

1959/1973), whereas self-brand similarity may be perceived as less controllable, and thus more reflective of the brand's true disposition. Thus, we predict that cue diagnosticity will depend on consumers' persuasion knowledge (H2) and self-esteem (H3). Specifically, brand liking cues that are less likely to be strategically managed by the brand (i.e., self-brand similarity) will be diagnostic for all consumers (H2a and H3a). In contrast, brand liking cues that are more likely to be managed by the brand (i.e., brand actions) will be diagnostic for consumers with low persuasion knowledge (H2b)/high self-esteem (H3b), but not for consumers with high persuasion knowledge (H2c)/low self-esteem (H3c).

We tested these hypotheses in five experiments. Experiment 1 was designed to test H1 using a 2 (self-brand similarity: similar, dissimilar) \times 2 (brand actions: friendly, neutral) between-subjects design ($N = 126$). First, participants read a brief description of a fictitious personal fragrance brand, Element Fragrance. Next, they read focus group results in which similar or dissimilar others preferred the brand. Participants then read a scenario in which they interacted with a brand representative at a sampling booth, who was either extremely friendly or polite but somewhat aloof. Finally, participants rated their interest in purchasing an Element Fragrance. The results revealed a main effect of self-brand similarity ($p < .05$), such that participants were more attracted to the brand when they perceived themselves to similar (vs. dissimilar) to other brand users. The results also revealed the predicted two-way interaction ($p < .05$), such that when any cue of brand liking was present, participants were more attracted to the brand than when such cues were absent. Two follow-up experiments showed that the perceived liking of the brand for the self separately mediated the effects of self-brand similarity (Experiment 2) and friendly brand actions (Experiment 3) on brand attraction, thereby confirming their roles and true indicators of brand liking. Collectively, these results provide support for H1, demonstrating that friendly brand actions and self-brand similarity lead to perceptions that the brand likes the consumer, which in turn cause the consumer to be more attracted to the brand.

Experiments 4 and 5 were designed to test the moderating roles of persuasion knowledge (H2) and self-esteem (H3), respectively, in the perceived diagnosticity of brand liking cues. Chevrolet served as the target brand for both experiments. First, we measured participants' persuasion knowledge (Bearden, Hardesty, and Rose 2001) or self-esteem (Rosenberg 1965). Next, we measured the extent to which participants' believed they were similar to Chevrolet on the basis of shared attitudes by first asking them to report their attitudes toward eight topics, and after a filler task, their beliefs about Chevrolet's attitudes toward those same topics. They then read a scenario in which Chevrolet owners at an informational session were extremely friendly or polite but somewhat aloof. Finally, participants rated their attitude toward Chevrolet. The results of separate regression analyses revealed that self-brand similarity was diagnostic for all participants, increasing brand attraction regardless of their persuasion knowledge (H2a) or self-esteem (H3a), whereas friendly brand actions were diagnostic for participants with low persuasion knowledge (H2b)/high self-esteem (H3b), but not for participants with high persuasion knowledge (H2c)/low self-esteem (H3c). These results demonstrate that all cues of brand liking are not created equal, and that when consumers have reason to doubt their truth value or sincerity, certain cues of brand liking (i.e., self-brand similarity) are more diagnostic than others (i.e., friendly brand actions).

In summary, this research is the first to empirically validate the existence and impact of perceived brand liking and, consequently, the reciprocal liking of the consumer for the brand. Further, these results provide support the view that consumer-brand relationships are a two-way street, with the thoughts and actions (real or imagined) of both partners influencing consumer behavior.

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Brand Trait Transference: Acquiring the Characteristics of Products

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If you describe someone as lazy, does this description cause others to view *you* as lazy? Research on spontaneous trait transference (STT) indicates that this is the case. STT occurs when perceivers attribute traits to informants based on behaviors they describe (Skowronski et al. 1998; Carlston and Skowronski, 2005). That is, if Sally describes someone as anxious, Sally will also tend to be perceived as anxious.

Drawing on STT research, the current research examines whether traits associated with certain products can be transferred to the people associated with those products (e.g., endorsers or salespeople). Previous research has shown that many brands possess a “brand personality,” which refers to a set of human characteristics or traits (Aaker 1997). The fact that traits can be associated with brands points toward the possibility of brand trait transference (BTT). Similar to STT, BTT refers to the transference of traits via associative processing. However, unlike STT which involves transferring traits related to a person’s behavior, BTT refers to a situation where traits that are connected with a brand transfer to someone associated with the brand. For example, if a perceiver associates camping equipment with the trait “adventurous,” they might also view a celebrity that endorses camping equipment as more adventurous than that celebrity would normally be viewed.

Three studies were conducted to test whether traits from a product or a company can be transferred to people who associate themselves with that product or company. In the first study, participants read a story about Steven who worked either for a well-respected pharmaceutical company, Pfizer, or for a pharmaceutical company that was caught distributing false information, XTM. Participants were asked to rate Steven on various traits, including trustworthiness. Participants who were told Steven worked for Pfizer rated him as significantly more trustworthy than participants who were told he worked for XTM. This supports the BTT hypothesis, as participants also rated Pfizer as more trustworthy than XTM. In other words, the degree of trustworthiness associated with the company appears to have at least partly transferred to the company’s representative.

The second study examined whether BTT can occur in the context of celebrity endorsements. Research on celebrity endorsers has found that celebrities are imbued with certain cultural meanings which are then passed to the product (McCracken 1989). BTT suggests that the opposite might also be true, and thus that traits associated with the product can be passed to the endorser. Participants viewed an advertisement that featured a celebrity endorser and a particular product. Three products were selected based on pre-testing results indicating that the products had specific trait associations, and three different endorsers were used for each product. Camping equipment was chosen due to its association with the trait “adventurous,” organizers were selected due to their association with the trait “organized,” and a children’s charity was selected due its association with the trait “generous.” After viewing the advertisement, participants were asked to rate the endorser on a variety of traits that included the target traits (e.g., adventurous) in addition to several filler traits (e.g., picky). The results showed that the celebrity endorsers were perceived as significantly more adventurous when featured with camping equipment, more organized when featured with organizers, and more generous when featured in the children’s charity advertisements. The celebrity endorsers did not have any strong preexisting traits on the variables of interest. The filler attributes did not differ between advertisements. These results illustrate BTT from the product to the celebrity endorser.

The third study examined a boundary condition for BTT. Specifically, it was investigated whether a strong pre-existing trait associated with a communicator could undermine BTT. In this study, two dimensions of brand personality, sincere and exciting, were used. Brand personality was manipulated via a slogan and pictures for a fabricated coffee brand. The two advertisements were pretested and it was found that the sincere advertisement was rated as more sincere and the exciting ad was rated as more exciting. A pretest on ratings of sincerity for female celebrity endorsers was also conducted. Paris Hilton received the lowest rating for sincerity, whereas Angelina Jolie received a neutral rating. Participants then viewed an advertisement that featured Paris Hilton or Angelina Jolie with the sincere or exciting slogans and pictures. After viewing the advertisement, participants were asked to rate the endorser on traits related to sincerity (i.e. wholesome). Results indicated a marginally significant endorser by advertisement interaction such that Angelina Jolie was perceived as more sincere in the sincere advertisement than the exciting advertisement. However, Paris Hilton was perceived as equally sincere in the two advertisements. These results demonstrate a boundary condition for BTT, namely that a celebrity endorser with a strong existing trait will undermine BTT. That is, because Paris Hilton had a pre-existing (negative) association with the sincerity trait, pairing her with an advertisement that evoked sincerity did not result in BTT.

The present studies expand on previous research examining STT by showing that brand traits can transfer to people who are associated with the brand. Study 1 showed that a salesperson's perceived trustworthiness is affected by the company he works for; implying trait transference from the company to the salesperson. Study 2 revealed that a celebrity endorser's perceived attributes are influenced by the products they endorse. Study 3 identified a condition that weakened BTT effects: Strong pre-existing traits associated with the communicator appear to negate the BTT effect with respect to conflicting traits in the product. To the extent that consumers' impressions of a celebrity are affected by the celebrity's prior endorsements, this could limit the celebrity's usefulness as an endorser for brands with opposing brand personalities.

Previous trait transference findings have focused on current behaviors as the source of trait transference from one person to another. The present research extends these findings by demonstrating their relevance to marketing contexts, by showing that pre-existing traits (e.g., based on the company's image) can be transferred, and by providing the first demonstration that objects (e.g., products and companies) can serve as a source for trait transference.

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"Keeping It Real": Marketing Implications of Brand Authenticity

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Researchers in marketing, psychology and sociology have identified a desire for authenticity both in personal and consumption contexts. However, in marketing, research on authenticity is still generally considered exploratory, and much of the literature uses a qualitative approach to define the construct and its effects on consumer behavior (Beverland 2005; Elliott & Davies 2006). Using an experimental approach, this paper demonstrates that authenticity is a malleable facet of the brand, and provides evidence that consumers' perceptions of a brand's authenticity affect other brand-related cognitions such as quality perceptions and willingness to pay. This paper also shows the potentially ironic consequences of fostering authenticity.

Although many definitions of authenticity have been offered in the literature, this paper will focus on one main source of authenticity: consumers' subjective judgments about the brand. Consumers make subjective judgments about the authenticity of a brand using contextual information such as information about the brand's image and its marketing. Summarized in Gilmore and Pine's (2007) *Polonius Test*, brands are considered to be authentic if they are "true to self" and/or "are what they say they are". Here, being "true to self" means that the brand is perceived to be intrinsically motivated and that the brand is not perceived as existing solely for the purpose of making money (Hughes 2000). On the other hand, "being what you say you are" means that to be authentic, a company or offering must live up to its own promises – there must be truth in advertising.

While much attention has been given to the importance of authenticity to the consumer, limited attention has been paid to the benefit (or detriment) being authentic has for the firm. The extant literature provides some evidence that judgments of authenticity have the potential to have a direct and indirect impact on consumers' search for information, consideration set formation and, ultimately, choice (Chalmers 2007; Groves 2001). While existing work suggests that consumers' perceptions of authenticity may affect inferences consumers make about the brand, it does not address the types of inferences that consumers make. We hypothesize that consumers will infer that more authentic brands are also higher in quality, and that they will be willing to pay more for these products. Additionally, to the extent that consumers believe that authentic products are more "real" than inauthentic products, we hypothesize that consumers will be more confident in the inferences they make about authentic products than inauthentic products.

Studies 1-3 utilized two procedures for manipulating the perceived authenticity of a single brand. In study 1, authenticity was manipulated by informing participants that authentic and inauthentic brands were owned by large corporations. Revealing this information should cause consumers to doubt the authenticity of the authentic brands, because the discrepancy between the images and motives of the authentic brands and their parent corporations should bring into doubt whether the authentic brands truly are who they say are, a key component in perceptions of authenticity. In studies 2 and 3, the founder of a fictional brand was described as having either a profit (inauthentic) or passion (authentic) motive for creating the brand. Measures of authenticity perceptions, product quality, willingness to pay and attitude confidence were taken both before (Time 1) and after (Time 2) the authenticity manipulation. Studies 1-3 revealed that perceptions of authenticity do affect other brand-related cognitions. When the brand was perceived to be more authentic (e.g., before learning of the corporate parent information or after learning of the passion motivation), participants reported increased perceptions of quality, increased willingness to pay, and more confidence in their attitudes. These increases in quality perceptions, willingness to pay, and attitude confidence were fully mediated by participants' increased perceptions of brand authenticity. Importantly, study 3 revealed that these benefits arise even for authentic brands of negatively perceived products. After learning that the owner of a new brand of cigarettes was motivated by his passion for making cigarettes, participants believed the new brand to be more authentic, and, in turn, believed the product to be higher in quality and worth more.

While studies 1-3, and previous work on brand authenticity, seem to suggest that increased authenticity is uniformly positive for the brand, we anticipated that the high standards created by authentic brands may backfire for those brands in two ways. First, the brand may be especially damaged if it cannot meet those expectations. Second, the brand may be damaged (in the form of unearned benefits) if it cannot exceed those expectations. In studies 4 and 5, we were interested in determining how authentic brands fare following brand transgressions and prosocial (corporate social responsibility) activities.

Study 4 found that following a transgression that undermines its authenticity, an authentic brand is damaged more than an inauthentic brand is after the same transgression (study 4). Specifically, the authentic brand took a greater hit to its perceived authenticity and quality. However, following transgressions that do not reflect the authenticity of the authentic brand, both the authentic and inauthentic brands were damaged equally. Additionally, study 5 found that whereas inauthentic brands benefit from engaging in

prosocial (CSR) activities, authentic brands do not. The inauthentic brand was perceived to be more authentic, higher in quality and worth more following a CSR activity, while the authentic brands received no such benefit. Supporting our hypotheses about the role of consumers' expectations in these judgment processes, participants in study 5 reported that the CSR activities fit the image they had of the authentic brand better than that of the inauthentic brand.

In summary, being "true to self" and "true to others" is important not only for individuals, but also for brands. Consumers are wary of advertising and other marketing communications and reward brands that they believe look beyond the bottom line. Perceptions of brand authenticity color inferences consumers make about a brand, ultimately affecting their willingness to pay for a product. And, while brand authenticity appears to be generally beneficial to the firm, authentic brands may need to be especially adept at managing consumers' expectations.

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The Influence of Global versus Local Processing on Brand Extension Evaluations

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A voluminous body of work examining brand extensions has uncovered a myriad of influences on brand extension evaluations (e.g., brand-specific associations, cultural differences, accessibility, construal, etc.). However, perceived similarity of the extension to the parent (Keller & Aaker, 1992), whether in the form of tangible features (Aaker & Keller, 1990; Chakravarti, MacInnis, & Nakamoto, 1990) or intangible qualities (e.g. brand concept consistency, Park, Milberg, & Lawson, 1991; brand-specific associations, Broniarczyk & Alba, 1994), seems to be a dominant determinant of the success or failure of brand extensions. According to the categorization model, assimilation with the parent brand improves evaluations when extensions are similar because the activated parent-brand associations are favorable in such situations (Sood & Dreze, 2006).

While extant literature has examined factors external to the consumer that influence brand extension evaluations, it is also highly likely that cognitive processes internal to a consumer influence such evaluations. One such influence may be global (vs. local) processing. Focusing on details versus the gestalt of an object can have repercussions on cognition. Forster, Liberman and Kuschel (2008) demonstrated that when participants were instructed to look at the entire gestalt of a city map, they generated more unusual exemplars of objects than those who looked at the details of the same city map. In another experiment, participants examined Navon letters (Navon, 1977). Participants who were asked to name the big letters found more similarities between two well-known German TV shows while the effect was reversed for those who were asked to name small letters (Forster, 2009). The underlying mechanism for results of both studies is the same – perceptual narrowing narrows conceptual narrowing. Thus, individuals whose perceptual attention has been narrowed tend to think in detail, indulge in contrastive judgment, and look for dissimilarities (referred to as local processing), while individuals whose perceptual attention has been kept broad think in global terms, indulge in assimilative judgment and look for similarities (referred to as global processing; Forster et al., 2008).

The conceptual effects of this type of perceptual priming are potentially important in the context of brand extension evaluations for two reasons. First, marketing activity involves the creation of perceptual stimuli (e.g. ads, packaging, etc.), which could potentially

induce global/local processing. Second, because the evaluation of a brand extension depends on the perceived similarity of the extension to the parent brand, a perceptual prime that engenders a consumer's proclivity to assimilate or look for similarities could render the primed consumer more likely to evaluate an extension favorably across a wider range of product features. This is because the globally primed consumer is more likely to look for similarities between the extension and the parent brand even if the extension is in a relatively dissimilar product category. In contrast, a consumer in a local processing state is likely to contrast the extension away from the parent, and may even look for dissimilarities in relatively similar extensions. Brand extensions can be highly similar or dissimilar to the parent brand, but it seems plausible that global versus local processing may influence consumer perceptions of extension similarity. Thus, we predicted that global/local processing should moderate the influence of the similarity of a brand's extension product to its base product on consumer evaluation of the extensions such that consumers employing local processing would be more influenced by similarity of the extension product than consumers employing global processing.

We tested the above proposition in two experiments. In both, participants were asked to evaluate potential brand extensions after receiving a global/local conceptual priming task. Both experiments had a 2 (similarity of extension: low, high) X 2 (processing: global, local) design and measured brand extension evaluations as the dependent variable. Two exemplar brands were used in each experiment, and brand familiarity was included in the analyses as a covariate.

To manipulate similarity, pre-tests were used to create possible brand extensions that were high in similarity (e.g., oatmeal for Kellogg) or low in similarity (e.g., brownie mix for Kellogg). In order to manipulate global processing in experiment one, we used Forster et al.'s (2008) conventional map procedure that utilizes a generic city map and instructions to prime processing. In experiment two, we used procedures more directly related to realistic marketing tactics, namely non-comparative versus comparative advertising to prime global versus local processing, respectively. The brands used in the ads were unrelated to the focal extension brands. Manipulation checks showed that all processing manipulations were successful.

Results of both experiments showed that brand extension evaluations were less influenced by the similarity of the extension to the parent brand for globally primed participants across the modalities of the local/global priming. In experiment one, there was a significant three-way interaction between brands, similarity, and prime ($F(1,178) = 12.87, p < .001$). Planned contrasts revealed that extension similarity influenced extension evaluations positively for locally primed participants but not for globally primed participants. Results of experiment two also show significant results. Specifically, for each brand, there was a significant interaction between similarity and priming ($F(1,134) = 3.77, p < .05$ and $F(1,134) = 5.74, p < .02$, respectively). Planned contrasts revealed that extension similarity influenced extension evaluations for locally primed participants but not for globally primed participants.

As predicted, global/local processing influenced the relationship between similarity and evaluation of the extension. Familiarity of the brand did not seem to have an effect, nor did the participants like any one brand significantly more than the other. Global processing leads to acceptance of more dissimilar brand extensions while local processing leads to a heightened concern for the similarity. Further, it seems that non-comparative advertising leads to global while comparative advertising leads to local processing which is an extension of research in this area. Interestingly, modality of the advertising (comparative/non comparative) influences extension evaluations of unrelated brands. Finally, from a managerial standpoint, the finding that perceptual cues can influence brand extension evaluations may help marketers design communications aimed at bolstering consumers' evaluations of brand extensions.

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5.7 Symposium: Focusing on the Forgone: Opportunity Costs in Consumer Decision Making

Room: Maple Room B

Chair: Christopher Olivola, Warwick Business School, UK

Discussion Leader: Stephen Spiller, Duke University, USA

Resource Use Accessibility and Opportunity Cost Consideration

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Consumers face opportunity costs: because they have unlimited wants but limited resources, satisfying one want means not satisfying another. Normatively, consumers should account for opportunity costs in every decision, yet a stream of behavioral research concludes that consumers sometimes neglect opportunity costs altogether and act as though opportunity costs do not exist (Frederick et al. 2009; Jones et al. 1998; Legrenzi, Girotto, & Johnson-Laird 1993). Does the likelihood of considering opportunity costs and which opportunity costs are considered vary as a function of the type of resources used?

When several diagnostic inputs are available, more accessible inputs are more likely to be used. Activation of a category concept makes its typical instances more accessible than its atypical instances (Nedungadi & Hutchinson 1985; Rosch 1975). Considering a particular resource will make typical uses of that resource more accessible than atypical uses, and thus more likely to be considered as opportunity costs. A mental account for clothing will make thoughts of shirts (typical category members) more accessible than thoughts of scarves (atypical category members), and a Starbucks' gift card will make thoughts of beverages more accessible than thoughts of foods.

Some resources have more limited uses than others. Though cash is economically fungible, people often use mental accounts that reduce its fungibility and limit its uses (Thaler 1999). In addition to self-imposed limitations, there are real limitations on resources uses (e.g., gift cards). Usage limitations lead to heightened accessibility of alternative resource uses as a result of fewer possible uses and specific types of uses.

Because limited-use currencies are associated with fewer possible purchases, they are more likely to activate each of them. Constructs in memory with more associations activate each one less strongly than constructs with fewer associations (Anderson 1974). A gift card that may only be used on books or music will make each of those items more accessible than a gift card that may be used on books, music, movies, games, electronics, or clothing.

Gift cards that are usable at different stores are limited in use not to random collections of products but to categories of products. Similarly, mental accounts are often organized around categories of purchases or sources of income and are types of categories themselves (Heath & Soll 1996; Henderson & Peterson 1992). Narrow categories activate category instances more than broad categories (Boush & Loken 1991; Meyvis & Janiszewski 2004). Resources that are associated with categories of purchases (particularly narrow categories) activate those purchases (particularly typical purchases) more than resources that are unassociated with categories of purchases. Limited-use resources thereby increase consideration of opportunity costs.

Study 1 demonstrates the effect of accessibility on opportunity cost consideration as a result of resource use typicality. If an alternative is considered as an opportunity cost, the more one likes the alternative, the less likely one is to buy. Participants imagined using a

Starbucks gift card to make a purchase; purchase likelihood was analyzed as a function of liking for a more typical opportunity cost (self-specified beverage) and a less typical opportunity cost (self-specified food). More typical resource uses had a greater effect on the likelihood of making a purchase ($B = -0.66$, $\chi^2(1) = 11.08$, $p < .01$) than less typical resource uses ($B = 0.03$, $\chi^2(1) = 0.04$, ns); $\chi^2(1) = 5.50$, $p < .02$. Controlling for differences in resource use typicality, this difference was eliminated ($B = 0.06$, $\chi^2(1) = 0.06$, ns).

Study 2a demonstrates the relationship between gift card specificity and accessibility of possible resource uses. Participants generated resource uses faster for gift cards that had more specific uses: $z = -.12$, $p < .01$. Study 2b shows that mere number of resource uses affects the accessibility of opportunity costs. A variation on Anderson's (1974) paradigm was used to manipulate the number of resource uses. Accessibility was measured as the speed with which participants confirmed or refuted the feasibility of various resource uses. The more products that were associated with a particular resource, the slower participants were to confirm feasible uses and refute infeasible uses ($F(1,19) = 7.17$, $p < .02$).

Study 3 shows that resource use limitations can decrease the likelihood of buying because opportunity costs are made more accessible. Limits on resource usage decrease actual opportunity costs and therefore should increase the likelihood of buying. Among Starbucks coffee lovers, consumers who imagined using a Starbucks gift card reported being less likely to buy a CD (63%) than those who imagined using a Visa gift card (85%); $\chi^2(1) = 9.44$, $p < .01$.

Because consumers are more likely to consider their opportunity costs for limited-use resources, they are more likely to represent these resources as a means to an end rather than as an end, implying that they will be treated more like their intended use and less like fungible money (Zelizer 1997). Consumers may be more likely to consider limited-use resources in terms of their real value and how much consumption they can purchase rather than their nominal value, and thus be less susceptible to the money illusion and medium maximization (Hsee et al. 2003; Shafir, Diamond, & Tversky 1997).

Opportunity Cost Neglect in Philanthropic Decision Making: Violations of Pareto Hedonism and Pareto Utilitarianism

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A special type of consumer choice is the decision to spend resources, such as time and money, in order to help others in need (in contrast to purchasing goods or services for oneself). While a good deal of research has explored how people come to view improving human welfare as a desirable *end*, much less work has considered the importance that people attach to the specific *means* of achieving altruistic goals. In particular, an important question is whether some means of achieving a given altruistic outcome are preferred to others, and whether the level of prosocial investment that people are willing to make is a function of the available means.

Philanthropic decision-making (PDM), like any other type of choice, is constrained by consumers' limited budgets of money, time, and other resources. A consumer desiring to help others in need must therefore carefully choose how best to spend her resources in a way that will have the most positive impact, both for herself and the recipients of her contributions. With this fundamental goal of PDM in mind, we begin by defining two normative criteria: "Pareto hedonism" –the notion that a consumer should strive to increase her own utility if she can do so without sacrificing others' welfare– and "Pareto utilitarianism" –the notion that a consumer should strive to improve others' welfare if she can do so without sacrificing her own resources. Although both of these principles require that

consumers properly consider forgone opportunities when they select a particular means of making charitable contributions, we show that they often seem insensitive to these opportunity costs, leading to violations of both principles (sometimes simultaneously). We present evidence that people are more motivated to make altruistic contributions when the means of doing so are challenging and painful than when they are easy and enjoyable. We demonstrate this “martyrdom effect” in two distinct contexts: charitable donation giving and international humanitarian work. We then discuss how this preference for challenging forms of altruism leads to inefficient and suboptimal allocations of resources to the needy.

We first consider the domain of charitable donation giving and show that, contrary to the standard normative view of decision makers as hedonic utility-maximizers, the prospect of pain and effort can motivate altruism. We briefly review the results of several studies showing that participants contribute more money to a prosocial cause when the contribution process is painful and effortful (e.g., a 5-mile run) than when it is neutral or enjoyable (e.g., a picnic). On average (across studies) making the contribution process more physically challenging leads to a 100% increase in the average willingness to contribute (even including participants who choose not to participate or contribute any money). We go on to argue that this behavior is suboptimal for several reasons: (1) painful-effortful charity fundraisers (e.g., marathons) are among the *least* efficient means of raising money for charity, (2) the energy and time consumed by participants in these events represent large opportunity costs that could instead be used to directly benefit the recipients of charity, and (3) these events can pose serious health hazards to participants, thus reducing overall welfare and increasing costs.

We next turn to the domain of international humanitarian work, where we show that human intuitions lead people to admire more difficult career paths that lead to fewer lives saved, over ones that are easier and save more lives. In particular, we consider the case of “Médecins Sans Frontières” (also known as “Doctors Without Borders”), an organization that sends medical doctors –some of whom could be making large salaries in the U.S.– to poor areas and war zones in order to provide direct medical aid. We presented medical students and physicians ($N = 199$) with an ethical dilemma scenario involving two hypothetical American physicians: one who joins Médecins Sans Frontières (MSF), earns \$18,000 per year, and saves 200 lives each year through his work; another who starts a private practice, earns \$700,000 per year but donates \$20,000 of it and, in doing so, saves 500 lives each year. Across several measures of preference, we found that the majority of our medical respondents thought that joining MSF and saving 200 lives would be preferable to joining a private practice and saving 500 lives (all p -values < 0.008). Furthermore, this preference for MSF was strongest in respondents who believe that one’s knowledge, skills, and education should be used primarily to help others in need (rather than to pursue personal goals). These results were replicated among a population of undergraduate respondents ($N = 100$), and we also found that students considering a career in medicine were more likely to report that they would prefer to live like the MSF doctor for a year than those who were not considering a career in medicine (73% vs. 47%, $\chi^2(1) = 4.07$, $p < .05$, $\phi = .24$). We consider various rationalizations for this preference and show that none of them provide a good normative justification.

In sum, our studies demonstrate a striking violation of both Pareto hedonism and Pareto utilitarianism. By choosing painful-effortful philanthropic practices, consumers are forgoing more effective means of aiding those in need. In our discussion, we argue that an admiration for self-sacrifice leads us to neglect the opportunity costs associated with certain choices. In turn, this can lead us to prefer an existence that is worse (i.e., fully dominated), in terms of both its objective consequences (e.g., the number of lives saved) and hedonic quality (e.g., the pain and effort involved in raising money), than other available options. We conclude by discussing possible solutions to this problem.

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Spending, Opportunities to Save, and Intertemporal Egoism: The Role of Connectedness to the Future Self in Consumers' Financial Tradeoffs

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Consider a routine purchase – a consumer walks into a coffee shop and buys a latte for \$4. In and of itself, such behavior seems unproblematic, since it can be reasonably assumed that the consumer derives at least \$4 of utility from that drink. Viewed differently, however, purchases like this may be viewed as an example of a general tendency to prioritize current pleasure over future financial well-being. Financial self-help author David Bach coins this “the latte factor,” and advises that cutting back on such small spending in order to invest instead can make a substantial difference in the long run.

Adopting and maintaining such a strategy requires the consumer to: (i) consider the tradeoff inherent in the purchase; i.e. that purchasing now requires foregoing an opportunity to use the money to further one’s long-term interests, and (ii) care enough about the future self who would benefit from their forbearance to warrant restraint in the present. We argue that consumers’ financial decision-making hinges on the interaction between both components: the awareness of implicit opportunity costs and the degree of commitment to the well being of one’s future self. Across four studies, we provide evidence that the psychological relationship with one’s future self (operationalized as the degree of connectedness to one’s future self; Parfit 1984, Bartels and Urminsky 2010) will have the strongest influence on financial decision making in those contexts where tradeoffs are apparent (Frederick et al., 2009), and that far-sighted choices require the combination of both high connectedness and the recognition of opportunity costs.

In Study 1, we document a link between connectedness (i.e. whether the defining properties of the current self will be preserved in the future self) and financial decisions in a survey of over 300 adult bank account holders on their savings and spending behaviors and attitudes. The measured degree of connectedness correlates with both the tendency to save and negative attitudes towards unnecessary spending. These relationships persist controlling for demographics, income and, in the case of attitudes towards spending, even controlling for accumulated savings.

In Study 2, we demonstrate the impact of a metacognitive manipulation of connectedness when tradeoffs are made in a budgetary planning task. Graduating seniors were asked to judge how easily they could generate 10 [2] reasons why their own identity would remain very stable over the next year, after reading that most participants in a previous study could do so, in order to induce high [low] connectedness to the future self. A pre-test confirmed that the greater feeling of difficulty in the 10 reasons condition yields an inference of lower connectedness to the future self and rules out potential confounds, including abstract construal and time perception. We then find that the graduating seniors in the high connectedness condition allocated more of their budget for the coming year to those spending categories that they themselves identified as responsible uses of money, compared to participants in the low-connectedness condition (an average of 60% vs 52% of spending allocated to the three most responsible categories, $t=2.06$, $p<.05$).

In Study 3, we investigated how manipulating participants’ awareness of opportunity costs would interact with connectedness to impact a typical purchase decision in which the opportunity costs are implicit and may not be spontaneously salient to the consumer. As in Frederick et al., (2009), participants were asked whether or not they would purchase an entertaining DVD for \$14.99 in the control condition, and in the opportunity cost condition the reminder “keeping the \$14.99 for other purchases” was added to the not-purchase option. We find a significant interaction between opportunity cost reminder and participants’ measured connectedness to

their future selves ($\beta = .63$, $p = .036$, $N=88$), indicating that connectedness exerts a stronger influence on consumer choice when participants are reminded of opportunity costs (biserial correlation $r = -.41$, $p < .01$), compared to the control condition (biserial correlation $r = .04$, $p > .10$). Correspondingly, a spotlight analysis showed that the opportunity cost cue was much more potent for consumers high in connectedness (for whom the reminder increased probability of purchase from 27% without a reminder to 74% with the reminder) than for those low in connectedness (where purchase probability went from 31% to 22%).

In the last study, we investigated how opportunity cost and connectedness affect the decision whether to buy an expensive product or a cheaper. Using a 2 x 2 between-subjects design, we crossed a manipulation of connectedness with an opportunity cost manipulation. We manipulated connectedness by having participants read a short description of “recent research” suggesting that young adulthood is either characterized by stability in identity (inducing high connectedness) or is characterized by instability in identity (inducing low connectedness). After participants rated their connectedness to their future self, they chose between purchasing one of two iPods (32 Gb for \$329 or 16 Gb for \$229) or buying neither product. The price difference was highlighted for the lower cost iPod in the “opportunity cost” conditions (“leaving you \$100 in cash”), but not in the control condition.

Among iPod buyers, we found that (i) people made to feel more connected to the future self were less likely to choose the expensive iPod and that (ii) the reminder to consider opportunity costs reduced purchase of the expensive iPod. In particular, when people were reminded of opportunity costs, manipulating connectedness completely eliminated purchases of the expensive iPod (47% vs. 0%, low vs. high connectedness). A logistic regression indicated significant main effects of (i) opportunity cost salience ($\beta = 1.78$, $p < .05$), (ii) the connectedness manipulation ($\beta = 2.09$, $p < .01$) and (iii) the predicted interaction between connectedness and efficacy of the reminder to consider opportunity costs (interaction $\beta = 1.49$, $p = .05$). Furthermore, the effect of the connectedness manipulation was mediated by measured connectedness (Sobel test $p < .08$). We conclude by discussing the implications for understanding financial decision making and the potential limitations of interventions designed to improve consumers’ decisions that are suggested by this research.

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The Role of Opportunity Costs in Future-Biased Choices

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Future-bias is defined as the tendency for individuals to delay or postpone action beyond optimal endpoints (Shu 2008, Shu and Gneezy 2010). Future-biased behavior can be the result of a misprediction of future time resources or of overestimations of small probability outcomes, but there are also situations in which individuals intentionally underconsume a scarce resource simply to avoid not having it in a future period. In other words, the individual intentionally holds a buffer stock as a “just in case” reserve for the future. While buffer stocks can be a completely rational reaction to high levels of risk aversion regarding future potential outcomes (for example, savings as a buffer for emergencies), they are less than optimal when the value of the contingency is either less than the value of immediate use or less than the cost of storage. Why, then, do individuals hold buffer stocks in these cases? Individuals appear to prefer to incur the opportunity cost (or holding cost) over the pain that will be felt at not having the item when it is later needed. More specifically, they underweight the cost of holding the option, and overweight the value of having the option in the future. This behavior results in a bias when immediate use has a higher value than holding the option for later stages.

There are many real life examples of oversaving behavior. In sports, Karlan, Thaler & Huizinga's (2002) analysis of NBA players in foul trouble finds that star players are sub-optimally benched when in foul trouble; even though allowing such players to stay in the game might lead to more total points, coaches prefer that they be benched and "saved" for a later quarter. Shin and Ariely (2004) show that decision makers over-invest in sub-standard alternatives just to keep those alternatives from going away. Even with the ability to recall a closed option, subjects continue to overinvest in maintaining weak options. Other consumer examples represent a type of "hoarding" behavior, where items are saved just because they might be useful someday. Consider, for example, Wansink, Brasel & Amjad's (2000) documentation of the phenomenon of the cupboard castaway, obscure kitchen items that are saved as "just in case" ingredients for rare recipes. Research also suggests that the elderly often underspend their savings and die with more money than they intended (Borsch-Supan, Rail-Held, Rodepeter, Schnabel & Winter 2000, Carroll & Samwick 1997, Palumbo 1999, Johnson, Kotlikoff & Samuelson 1987). Delaying offers a lower standard of living in the current period, but preserves the promise that the savings will still be available in the future (even if its owner won't have the opportunity to take advantage of it). Such examples violate the idea that the value of a contingency should be worth more than the cost of maintaining the contingency: in other words, opportunity costs are not being accurately valued.

The studies presented here investigate how future bias connects to opportunity costs associated with scarce resources. The first studies are based on a frequent flier usage paradigm, and test whether individuals overvalue future options at the expense of current costs. In these studies, participants chose how to use frequent flier rewards over a series of trials. Results from this study suggest that participants use a strategy of saving rewards coupons for unlikely events, resulting in either heavy use of the rewards immediately before they expire or even allowing them to expire unused. This hoarding strategy is insensitive to the actual probability of the outcomes, indicating that individuals are overweighting the value of having the option available in the future. Results also show that individuals who oversave their rewards are less satisfied than those who find an opportunity to use them sooner; these participants both overweighted future opportunities and undervalued the opportunity cost of hoarding until it was too late.

The next studies look more closely at overestimation of future opportunities for a scarce resource by asking participants during the holding stage exactly what they are saving their resources for. Field surveys run with MBA students holding bidding points for desired classes, wine drinkers holding "special" bottles of wine, and active golfers hoarding favorite golf balls all suggest that individuals have undefined special occasions in mind that they are saving for, but that this behavior is biased due to an overestimation of the probability of such occasions. For example, in a survey of active golfers who purchase golf balls an average of every 4 to 6 months, individuals report that "special" balls are saved for 12 months or longer and the amount of saving increases as the item becomes more scarce (i.e., for the final ball in a package). Among wine drinkers, saved bottles of wine are a scarce resource in the mind of their owners even when they are not scarce in the market, as demonstrated by owners valuing them significantly above their replacement value (\$102 vs \$76, $p = .03$). Respondents who hold either multiple units of a resource (a package of golf balls or case of wine) or begin with large balances (course bidding points) use these resources steadily in beginning periods, but as the resource becomes scarce, they limit usage and can even unintentionally end up with excess unusable units. Overall, these findings suggest that future-biased behavior can lead individuals to overly restrict themselves on usage of scarce resources only to allow the resource to be ultimately wasted.

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5.8 Symposium: Counterintuitive Source Effects on Attitudes and Persuasion

Room: Maple Room C

Chair: Ab Litt, Stanford University, USA

Power and Persuasion: The Interplay of Communicator and Audience Power

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Power is a foundational basis of social hierarchy (Leavitt 2005). As a consequence, power deeply permeates into individuals' everyday experiences (e.g., Fiske 1993, Keltner et al. 2003, Kipnis 1972, Magee & Galinsky 2008). The present research asks the following question: how do individuals' states of power and powerlessness influence communicators' persuasiveness? For instance, a low-power seller might negotiate with a high-power buyer; a high-power spokesperson might address a low-power audience; and a low-power consumer might spread information to other low-power consumers.

Research has shown that states of having power foster confidence (Briñol et al. 2007), optimism (Anderson & Galinsky 2006) and action-orientation (Galinsky et al. 2003). All of these qualities can be thought of as relating to the general *competence* of an individual. In contrast, states of lacking power increase individuals' focus on others (e.g., Lee and Tiedens 2001; Rucker, Dubois, and Galinsky forthcoming), ability to take others' perspective (e.g., Keltner et al. 2003) and compassion (e.g., Van Kleef et al. 2008). All of these qualities can be thought of as relating to the *warmth* of an individual. Indeed, competence and warmth have been viewed as the two fundamental defining features of impression formation (see Cuddy et al. 2008).

Although it is possible to make main effect predictions where people will be more likely to value warmth versus competence, we propose that communicators' and recipients' power interact in a dynamic way. Specifically, we propose that, among communicators, those who have power generate more competent, but less warm, messages; in contrast, communicators who lack power generate warmer, but less competent, messages. Among recipients, we propose that those who have power will care about, and weigh more heavily, competence, whereas those who lack power will care about, and weigh more heavily, warmth. As a consequence, we predict a matching effect whereby high-power communicators will be more effective persuaders against high-power recipients, but low-power communicators will be more effective persuaders against low-power recipients. Two experiments tested this hypothesis.

Experiment 1: Testing the dynamic interplay. Participants were assigned to the role of boss (high power) or employee (low power; see Lammers et al. 2008) for a future task in the session. Their position was unknown to others. Next, in a different task, participants took part in a persuasion game. Participants were given the name of a remote, fictional sounding city (e.g., Lalibela) and were instructed to craft a message aimed at convincing others that this city was in a particular location of their choice (e.g., Uruguay). Participants took turns to orally convince others, and alternated in the communicator and recipient roles. As recipients, participants were asked the extent to which they believed the city was in the location the speaker talked about. Results revealed high-power recipients found high-power communicators more persuasive, $p < .05$ while low-power recipients found low-power communicators more persuasive, $p < .05$.

Experiment 2: Testing the underlying mechanism hypothesis. Experiment 2 tested whether differences in warmth and competence could explain the dynamic interplay between communicators' and recipients' power. Undergraduate students were assigned to a 3 (communicators' power: baseline, low, high) \times 3 (recipients' power: baseline, low, high) between subject design. Both communicators' and recipients' power was manipulated through an episodic recall task where they described a time they lacked power (low-power condition), possessed power (high-power condition), or did not write anything (baseline condition, see Galinsky et al. 2003; Rucker & Galinsky 2008). Communicators wrote a persuasive message aimed at promoting their university at a local high school. These messages were then randomly presented to recipients whose task was to judge the message on three dimensions: persuasiveness; perceived competence of the source; and perceived warmth of the source. Persuasiveness results replicated experiment 2's matching: high-(low-) power recipients found high-(low-) power communicators more persuasive than low-power (high-power) and baseline communicators. Among baseline recipients, there was no effect of power on persuasion.

There was a main effect of power on competence such that regardless of recipient power, high-power communicators were judged as more competent than both baseline and low-power communicators, based on their messages. In contrast, regardless of recipients' power, low-power communicators were judged as warmer than both baseline and low-power communicators. This suggests that power affected the type of messages communicators generated. Further, mediation analyses found that among high-power recipients competence (95% CI = .072; .703), but not warmth (95% CI = -.051; .198) mediated the effect of communicator's power on persuasiveness. In contrast, among low-power recipients warmth (95% CI = -.223; .152), but not competence (95% CI = -.641; -.091) mediated the effect of communicators' power on persuasiveness.

Conclusion and Contributions. These experiments offer a framework for understanding how power affects the communication and reception of persuasive messages. Given temporary states of power unilaterally shift one's expression and sensitivity to competence and warmth, powerful (powerless) communicators are perceived as more competent (warm) when delivering a message. Given high-(low-) power recipients value competence (warmth) more, powerful (powerless) recipients were more persuaded by a powerful (powerless) communicators. Altogether, the findings have important theoretical implications for understanding interpersonal communication and persuasion as they provide the first evidence of the dynamic interplay between communicators' and recipients' power.

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When High Status Backfires: Pragmatic Signals and Comparative Advertising Efficacy

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Directly competing products often differ widely in perceived status, market share, and other relative dominance aspects (e.g., Apple's iPod vs. Microsoft's Zune; Heinz vs. Hunt's ketchup). Competition between such products often motivates comparative advertising. While considerable research has explored its effectiveness in cases of lower-status competitors drawing upward comparisons or relatively equivalent competitors attacking each other, the third case—in which a high-status firm draws favorable comparisons against a lower-status competitor—has received less attention. Many conditions can make such high-to-low comparisons attractive to firms: for example, if the lower-status competitor is a new marketplace entry; if it is seen as being “in ascendance,” with growing potential as a competitor; or if it has strong appeal in some specific consumer segments, whereas in others consumers perceive

substantial status differential. In such cases, consumers perceiving a status differential between two products can be exposed to marketing efforts on behalf of the high-status product that *confirm* preexisting status differences.

Across four studies we explore the hazards of such marketing efforts. Specifically, we illustrate how high status of a comparative advertisement's source can have counterintuitive effects on advertisement efficacy. Drawing from research on semantic and pragmatic message implications (Gruenfeld and Wyer 1992; Harris and Monaco 1978), we posit that messages reaffirming clear pre-existing beliefs (such as a perceived status disparity between firms/products) can motivate consumers to consider *why* they are receiving them at all. For instance, consumers who strongly prefer Coca-Cola to RC Cola and assume others do too might question the rationale behind receiving a message claiming that Coke is better than RC. One factor consumers may examine to resolve this is the message's source. If the source has a vested interest (e.g., Coca-Cola itself makes the claim in an ad), the fact that it felt compelled to draw the comparison could signal that initial belief about its superiority was not entirely warranted. That is, the mere fact of Coke making an effort to highlight superiority over RC signals that RC may be a legitimate and plausibly preferable competitor, thus enhancing perceptions of RC. As a result, a belief- or preference-consistent message from an invested source—here, a high-status firm drawing favorable comparison to a lower-status competitor—can backfire.

In contrast, identical comparative information communicated by a neutral source (e.g., a Consumer Reports review) is unlikely to backfire, because no such ulterior *pragmatic signal* is inferable. Similarly, for reduced source-target status differentials (e.g., Coca-Cola advertising against Pepsi), the message does not raise questions about ulterior reasons behind its presentation. In both cases, the ad is instead interpreted for only its literal semantic content. In short, comparative ads from high-status firms attacking lower-status competitors might backfire, whereas the same comparisons drawn by neutral sources, or comparisons between less status-differentiated firms, should have their intended effects.

Study 1 demonstrated this core result: a high-status firm's comparative ad backfires by enhancing perceptions of a lower-status competitor. Relative to a No-Ad control, seeing an advertisement by Coca-Cola against RC Cola increased relative preference, perceived quality, and liking ratings for RC, as well as perceived similarity between the products. There were no effects of the ad on Coca-Cola perceptions.

Study 2A illustrates that vested interest of the message source is critical for the backfiring of high-to-low comparisons. If, instead of being communicated by a high-status competitor, identical comparative information comes from a neutral source, this causes a message-*consistent* reduction of low-status product perceptions. Here, we ran a control condition querying attitudes toward mid-size sedans from Kia (low status) and Toyota (high status, as confirmed by a manipulation check) along with two other conditions first presenting comparative information favoring the Toyota over the Kia. In the Ad condition, this came as a Toyota ad attacking Kia via reference to an independent consumer survey favoring its product over Kia's. In the Neutral-Source condition, the same consumer survey information favoring Toyota over Kia was presented directly from its independent source. Across measures of perceived quality, liking, relative preference, and purchase-intentions, we observed backfiring effects of Kia-enhancement in the Ad condition. Conversely, we observed message-consistent effects (i.e., Kia-undermining) from the same comparative information presented in the Neutral-Source condition.

Study 2B directly tested the status differential aspect of our framework using a simple variation on Study 2A's Ad condition. Here, we replaced references to Kia with references to Honda (whose status was relatively close to Toyota's), but otherwise kept the ad format and content identical, highlighting Toyota's superiority. Our framework suggests that with minimal or reversed source-target

status differential, the comparative ad should not backfire. Results confirmed this: the same Toyota ad that backfired when directed against Kia (low-status competitor) here induced message-consistent undermining of Honda (high-status competitor).

Finally, **Study 3** leveraged a real-world shock to a high-status firm—the 2009-2010 Toyota recall crisis—to demonstrate a key result following directly from our framework. Specifically, we hypothesized that by reducing preexisting status differentials, damage to a high-status firm's standing could actually *improve* the efficacy of its comparative advertising against lower-status competitors, yielding message-consistent effects from ads that would otherwise backfire. To explore this possibility, we re-ran our Toyota versus Kia Ad/No-Ad conditions at the peak of a large spike in negative attention to Toyota during its recall crisis. After querying product perceptions, participants reported on the extent to which the crisis had influenced their perceptions of Toyota's overall status relative to its competitors.

This *status-damage* measure critically moderated the effect of the Toyota/Kia ad on Kia product-perceptions. Amongst those for whom Toyota's status declined relatively little, we replicated the ad's backfiring (Kia-enhancing) effect from Study 2A. In contrast, for those perceiving high Toyota status-damage (reducing preexisting source-target status differentials), the ad had a *message-consistent* effect—undermining Kia perceptions. Thus, damage to a firm's status actually reduced the propensity of its downward-directed comparative ads to backfire. Source-status can thus have counterintuitive effects on comparative advertisement efficacy if ads are seen as reaffirming pre-existing perceived product status differentials.

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The Artful Dodger: Answering the Wrong Question the Right Way

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Many in public life seek to master the artful dodge, frequently attempting to wriggle out from answering questions they would rather avoid. Though perhaps most grating when performed by politicians, question-dodging occurs in a wide array of other contexts as well: from corporate executives avoiding reporters' requests for their expectations for the next fiscal quarter, to employees sidestepping their bosses' questions as to why they are late for the third straight day, to spouses evading their partners' inquiries as to their whereabouts the previous evening. Among relevant marketing and consumer domains, consider the public relations officers who deal with tough questions from consumers, regulators, and the media in the aftermath of product-safety crises; tactics in customer relationship management (CRM) for pacifying clients even when unable to actually solve their substantive problems; or a salesperson skillfully evading questions about the true value of buying dealership rustproofing for new car, or about the accident history of a used one.

But are such attempts to dodge successful? Most importantly, what determines whether a dodge is successful – when a speaker's answer to the wrong question goes unnoticed, and therefore unpunished? In the studies that follow we show that dodges succeed when speakers respond to a question by responding with answers that *seem* to address the question, but which in fact address an entirely different, though similar, question. For instance, a politician in a debate asked about the illegal drug problem in America whose answer stresses the need for universal healthcare has engaged in a successful dodge if listeners have both forgotten that she was even asked about drugs, and evaluate her highly. Indeed, we show that in some cases, speakers end up better off by answering the *wrong* question well than the right question poorly.

In **Study 1**, we asked participants to listen to a brief excerpt from a political debate between two politicians. For the second politician, we varied the question asked – about healthcare, the illegal drug problem, or the War on Terror – but this politician always gave the same answer about healthcare. Thus we varied whether the politician answered the question asked (about healthcare), a similar question (the drug problem), or a dissimilar question (the War on Terror). As predicted, results showed that when the politician answered a similar question, participants both forgot the original question – a successful dodge – and rated him highly; in contrast, when the politician answered a dissimilar question, participants noticed the effort to dodge and penalized him accordingly.

Study 1 demonstrated that speakers can get away with dodging questions without punishment when answering a question similar to the one asked. In everyday life, of course, people usually attempt to dodge questions when they are not prepared with a good answer to the question asked – for example, when an employee’s boss pops into her office unannounced to inquire as to her lateness, leaving her to stammer through a poorly phrased answer. In **Study 2**, we compared the efficacy of dodging questions by answering a similar question to stumbling through an answer to the actual question. Results showed that providing a good answer to a similar question resulted in evaluations similar to providing a good answer to the actual question (replicating Study 1); most interestingly, providing a good answer to a similar question resulted in *higher* interpersonal ratings than answering the actual question poorly.

How might we improve people’s ability to detect dodges? Interestingly, television networks have taken steps to curtail politicians’ efforts to dodge questions during political debates by posting the question asked of politicians for the duration of their answers. We tested the efficacy of this procedure **Study 3**. Participants watched the same excerpt as in Study 1; as before, we varied the question asked of the second politician – about healthcare or the illegal drug problem – and the politician always answered about healthcare. In addition, however, we also added two conditions which were identical to these, except that in both versions, the text of the question remained on the screen while the politician answered; here, we expected participants to notice the effort to dodge. As in Studies 1 and 2, without the aid of the question on the screen, dodging by answering a similar question was quite successful. In contrast, participants who were aided by having the actual question on the screen were nearly as good at remembering the actual question as those who heard the politician answer the actual question.

These results suggest that the emerging strategy used by television networks to increase viewers’ ability to recall the original question does in fact increase the detection of dodges. In many real-world situations, however, similar interventions are unlikely to be feasible: it would be difficult to ask an acquaintance or salesperson to hold up a sign indicating what question he was meant to be answering, for example. Accordingly, increasing dodge detection in everyday social and consumer interactions may be no easy task. At the same time, intervening to reduce the incidence of successful dodging is essential if we wish to reverse the results from our second study, and ensure that those who answer the right question with substance are preferred over those who answer the wrong question with style.

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The Defensive Trust Effect: Consumers' Defensive Use of Belief in a Just World to Cope with Persuasion Threat

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Consumers' trust judgments of marketers and their agents have critical importance for brand-relationship strength (Aaker, Fournier, and Brasel 2004), as a prerequisite to cooperating and agreeing with marketers (Schurr and Ozanne 1985), and as a key mediator of relationship commitment (Morgan and Hunt 1994). Trust is also vital to the efficient operation of modern, global economies (Fukuyama 1995). Yet consumer trust seems constantly under siege by threats from actions by marketers and sales agents. Consumers react with distrust to various threats, including deceptive advertising (Darke and Ritchie 2007), certain attention-getting advertising techniques (Campbell 1995), and flattery from a retail salesperson (Campbell and Kirmani 2000). Such distrust emerges even when the sinister motivations attributed to the marketers are implausible (Main, Dahl, and Darke 2007), when the distrusted agent has no connection to the deceiver (Darke and Ritchie 2007), and in the presence of clearly diagnostic information indicating that the agent is trustworthy (Darke, Ashworth and Ritchie 2008).

Such results suggest that distrust is ubiquitous in interactions with marketers, particularly those that arouse feelings of threat. Indeed, consumers are likely to recognize there is nearly always an ulterior motive in marketing exchanges (e.g., Friestad and Wright 1994). Despite this, consumers clearly extend trust to marketers at times. This research proposes and tests a motivated information-processing model that explains how consumers cope with such threats when extending trust to marketers. In brief, our model proposes that some consumers respond to threat by falling back on certain positive beliefs, leading counterintuitively to *enhanced* trust judgments of marketing agents when consumers are threatened in retail contexts (which, of course, are often shaped largely by retailers and marketers themselves). Such threat may stem from contextual factors typically under the marketer's control (e.g., difficulty in product-option differentiability) as well as factors intrinsic to marketing agents or materials (e.g., ads highlighting potentially threatening information, or even physical characteristics of salespeople).

Drawing on just world theory (Hafer and Begue 2005, Lerner 1980) and positive illusions research (Taylor and Brown 1988, 1994), we develop a model that specifies a mechanism and situational moderators involved in this counterintuitive effect of threat enhancing trust. The belief in a just world (BJW), a place where people get what they deserve (Lerner 1980, Lerner and Simmons 1966), is more strongly held by some individuals than others (Rubin and Peplau 1975). BJW often functions as a coping mechanism that helps individuals adapt to potential misfortunes (e.g., I am a good person, I deserve good outcomes, so I will get good outcomes; Furnham 2003, Hafer and Begue 2005). Our research views BJW as a type of positive illusion (Taylor and Brown 1988, 1994) which can influence trust judgments of marketing agents. Past research suggests that consumers typically respond negatively to threat by becoming less trusting of marketers (Campbell and Kirmani 2000, Darke and Ritchie 2007, Slovic, Flynn, and Layman 1991). In contrast, our model predicts that high-BJW consumers respond to persuasion threat by falling back on their BJW as a coping resource, leading to buffering – or even positive – effects on trust judgments of marketing agents. That is to say, when threatened by salespeople or other retail-context factors, high-BJW consumers feel that they *can* trust salespeople and marketing agents more, because their belief in a just world (in which they personally should expect good outcomes) becomes more salient. Four experiments support our conception and predictions.

In **Exp. 1**, participants imagined an interaction with a retail salesperson culminating in the salesperson recommending one digital camera over another. As a manipulation of threat, we varied whether participants reported their trust in the salesperson (using an adapted scale from Delgado-Ballester [2004]) either before or after deciding between the two cameras. The post-choice condition

represented high threat, because having made the firm and final decision, decision-generated threat was high. BJW was measured using an established scale (Dalbert 1999). Moderated multiple regression analysis revealed a significant choice-stage \times BJW interaction ($\beta .259, t = 2.422, p < .05$), such that high-BJW participants (+1 SD) trusted the salesperson more [Predicted Value (PV) = 4.46] than low-BJW participants (-1SD; $PV = 3.58$), but only in the post-choice stage, when decision-generated threat was high. A test of mediation by coded thought listings of valenced thoughts indicated that defensive trust coping operates through a relatively pre-conscious process, in that it did not require cognitive elaboration.

Exp. 2 examined conditions wherein consumers experience threat both pre- and post-choice. Consumers experience conflict in the pre-decision phase when choice alternatives are not or only difficultly differentiable, e.g., because they cannot find reasons on which to choose (Shafir et al. 1993). A non-differentiable choice set was introduced to Exp. 1's scenario. Here, high-BJW consumers trusted a retail salesperson more ($PV = 5.01$) than low-BJW ($PV = 3.73$; $\beta = .429, t = 4.428, p < .001$) across both decision phases.

Exp. 3 further extended these findings in three important ways: 1) A priming manipulation of BJW provided clearer causal evidence for the observed effects; 2) A cognitive load manipulation provided further evidence that defensive trust coping operates through a pre-conscious process; and 3) A manipulation of ulterior motive established a boundary condition, such that effects were extinguished when obvious ulterior motives of a marketing agent existed.

Exp. 4 provided clearer evidence of the defensive nature of the effects by manipulating the level of threat in the form of the decision's material consequences and the psycho-social nature of the experience. Threat from material consequences was manipulated by instructing half of participants that they had the chance to win whatever digital camera they chose in the study. Psycho-social threat was manipulated by assigning half the participants to the role of buyer (high-threat) and the other half to observer (low-threat) in a retail paradigm. Exp. 4's protocol also differed from the earlier studies in that participants shopped for a digital camera on an actual electronic retail website. The salesperson interaction occurred through an instant messaging (IM) software protocol with a confederate acting as a salesperson. The main result was a BJW \times consequence \times role interaction ($\beta = .113, t = 1.904, p < .06$) such that high-BJW participants in the buyer role/real consequence condition trusted more ($PV = 5.13$) than those in all other conditions (PV 's from 4.46 to 4.60).

This research makes several contributions to understanding how consumers cope with persuasion threat. For instance, whereas past research on consumer coping has focused on conscious strategies (Duhachek 2005, Duhachek and Iacobucci 2005, Duhachek and Oakley 2007), we demonstrate a novel coping strategy that seems to buttress consumers against threat without the need for conscious awareness or processing. Most interestingly, in contrast to extant research showing threat having negative effects on trust in marketing agents (Campbell and Kirmani 2000, Darke and Ritchie 2007, Slovic et al. 1991), we identify conditions under which threat can actually lead to positive effects on consumer trust of marketers. Although this pattern is counterintuitive, it follows directly from our proposed model of defensive consumer coping.

6.1 Individual Papers: Framing Effects

Room: Grand Ballroom A

Chair: Leona Tam, Old Dominion University

The Sleeper Framing Effect: The Influence of Frame Valence on Online and Retrospective Consumption

Morgan Poor, Indiana University

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One of the most pervasive findings in framing research is the valence-consistent shift; that is, positively valenced frames are preferred over equivalent negatively valenced frames. For example, ground beef labeled as 75% lean (positively valenced) has been shown to receive more favorable evaluations than beef labeled as 25% fat (negatively valenced), even though the two alternatives are identical (i.e., 75% lean = 25% fat) (Levin, Johnson, Russo & Deldin, 1985; Levin & Gaeth, 1988). Although this phenomenon is well-established, most framing research has explored how labels influence judgments of anticipated or hypothetical consumption (Bellizzi and Martin 1982; Levin et al. 1985). An exception is Levin and Gaeth (1988), who in a single study showed that the lean/fat frame effect described earlier had *no effect* on taste judgments when respondents were able to actually sample the beef. To explain their results, Levin and Gaeth invoked information integration theory (Anderson, 1981), arguing that experiential information obtained from actual consumption of the beef was integrated with non-experiential information provided by the frame valence, resulting in attenuation of the framing effect.

We extend Levin and Gaeth's (1988) work by examining how frames interact with actual consumption episodes to influence not only online judgments, but also retrospective judgments. In the absence of additional inputs, integration information theory and other multi-attribute models would predict non-experiential information to continue exerting less influence than experiential information on retrospective product evaluations. We show, however, that consumers often violate this principle of fixed ordinality when making experiential product judgments. We refer to this phenomenon as a *sleeper framing effect* because we find that valenced frames exert little influence on online experiential judgments but substantially impact retrospective experiential judgments. We attribute the effect to differential decay rates in the use of primary experiential information (e.g., taste, smoothness) versus secondary non-experiential information (e.g., frames) when forming evaluations. Specifically, we show that non-experiential information decays at a slower rate than experiential information, resulting in the sleeper effect. We demonstrate that the sleeper framing effect is due to variation in how consumers remember and use different types of information (i.e., experiential vs. non-experiential) when making judgments and *not* merely a function of the temporal order in which the information was presented. Across three experiments, we provide evidence of a robust sleeper framing effect, even when framing precedes the actual consumption experience.

In study 1, we provided an initial demonstration of the sleeper framing effect on experiential judgments. Participants were exposed to one of two logically equivalent frames, either positive or negative in valence, and subsequently engaged in the same sensory experience (i.e., listening to an unfamiliar song). Frame valence was manipulated by telling participants that recent market research had found that 50% of college students either LIKED or DISLIKED the song that they would be hearing. Timing of evaluation was manipulated by having half of the participants provide an online evaluation of the song immediately after the listening task, whereas the other half provided a retrospective evaluation 40 minutes later. Results were in line with our theorizing; frame valence had no influence on online experiential evaluations of the song's melody, but had a significant impact on retrospective evaluations.

In study 1, we provided an initial demonstration of the sleeper framing effect using logically equivalent frames that were opposite in valence (i.e., 50% like, 50% dislike). In study 2, we demonstrate that the sleeper effect is not restricted to oppositely valenced labels but can occur when two same-valenced labels are used that vary in their level of positivity. We also used a different sensory context (i.e., taste vs. hearing). Participants were first shown a print advertisement for a new brand of jellybeans. To manipulate consumption frame, the headline for the ad either read, “Happiness is Simple” or “Satisfaction is Simple.” A pre-test confirmed that the word “happiness” is judged to be more positive in valence than the word “satisfaction.” Immediately after viewing the ad, participants sampled the advertised jellybeans and rated them on three experiential dimensions: quality, taste, and deliciousness. At the end of the experimental session (about 50 minutes later), participants were asked to rate how they remembered the jellybeans tasted on the same three dimensions. We found that although ad frame had no influence on online experiential judgments, it significantly influenced retrospective judgments. Participants who were presented with the strongly positive frame (happiness) remembered the jellybeans as tasting better than they actually did, while subjects presented with the moderately positive frame (satisfaction) remembered the food as tasting worse than it actually did.

Studies 1 and 2 produced results consistent with our proposed sleeper framing effect, which contends that experiential versus non-experiential information decays at different rates. However, in both studies, the experiential information that participants received was non-diagnostic (static between conditions), so an alternative explanation could be that decay rates differ for diagnostic vs. non-diagnostic information. Furthermore, non-experiential information (i.e., frames) preceded experiential information in both studies; therefore, an order effect could also explain the data pattern.

Thus, in study 3, participants taste a moderately positive (fresh chips) or moderately negative (stale chips) product and then immediately afterwards encounter a moderately positive or moderately negative frame. Participants in the online condition complete a thought listing task during the taste test and then immediately evaluate the product. Those in the retrospective condition complete 45 minutes worth of filler tasks before completing the thought listing task and evaluation. The results again show that immediate judgments are biased toward the actual taste of the product but that retrospective judgments are biased toward the frame. Further, the type of thoughts during evaluation mediate the effect, such that participants experience more “hot” experiential thoughts when making online evaluations but more “cold” cognitive thoughts when making retrospective evaluations.

The prevailing view in the framing literature is that frames with positively valenced labels are typically preferred over equivalent frames with negatively valenced labels, but that an equivalent experience may attenuate this effect. The present research provides a more nuanced perspective on the relationship between experience and frames is more complex. Specifically, we find that because the use of experiential and non-experiential information decays at different rates, experiential information is more likely to influence online judgments whereas non-experiential information (i.e., framing) is more likely to influence retrospective judgments.

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Days vs. Months: How Units of Time Change Duration Sensitivity

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Individuals usually prefer to receive rewards (e.g., money) sooner rather than later, and do not like delays. Consequently, they desire larger rewards (e.g., more money) in return for longer delays. For example, while holding a certificate of deposit (CD) that is about to mature and yield cash, an investor may be willing to delay the CD's maturity date, but only in return for an additional amount. Moreover, the desired amount is likely to be higher if the maturity date is delayed by, say, 6 months rather than 3 months. Similarly, consider an online bookstore that offers overnight delivery at a certain shipping rate. An individual might be willing to accept a 2-day delay in return for a shipping discount and a 4-day delay in return for an even greater discount. The monetary incentive individuals need in such instances depends on their sensitivity to these durations—the extent to which they are sensitive to a change in the time of CD maturation (3 vs. 6 months) or in the time of book delivery (2 vs. 4 days). The current research demonstrates that duration sensitivity depends on the units employed to express durations. Specifically, individuals react differently (e.g., desire different amounts of money for a CD) when duration changes are expressed in relatively small units (90 vs. 180 days) versus large units (3 vs. 6 months).

The starting point of our theorizing is the numerosity heuristic (Pelham, Sumarta, and Myaskovsky 1994), which suggests that people use numbers as heuristics to make judgments. While this research has not examined sensitivity to changes in durations expressed in small units vis-à-vis large units, the suggestion would be as follows: Because numerosity is higher when duration changes are expressed in small units (90 vs. 180 days) rather than large units (3 vs. 6 months), the perception of change should be higher in the case of small (vs. large) units. We experimentally demonstrate that, in some situations (e.g., concrete mindset), the numerosity prediction holds: Individuals react more strongly to changes in small (vs. large) units. However, a reversal emerges in other situations (e.g., abstract mindset) such that individuals react more strongly to changes in large (vs. small) units. We argue that this reversal occurs because (a) just as numbers are used as heuristics, units can be used as well, and (b) units represent a higher-level construal than numbers.

In our studies, we begin with the testing of our first argument: Just as numbers are used as heuristics, units might be used as heuristics too and, therefore, depending on what is more salient—numbers or units—duration sensitivity might be different. We demonstrate evidence for this idea in a preliminary study in which we observe that units can be used as heuristics, and a main study in which we observe the predicted reversal of numerosity. We then test our second argument: Units might be construed at a higher level than numbers and, therefore, depending on the mindset that is evoked—concrete or abstract—duration sensitivity might be different. We present a preliminary study in which we observe the higher construal of units (vs. numbers), and two main studies in which we, once again, observe the predicted reversal of numerosity.

While our theorizing pertains to units in general, our key contribution is to the area of time perception. The idea that subjective and objective time durations are different has been long known to researchers in different disciplines, including consumer research (Hornik 1984). A stream of research related to duration neglect has revealed that subjective perceptions do not adequately match objective changes in duration (Elster and Loewenstein 1992; Fredrickson and Kahneman 1993; Varey and Kahneman 1992). Moreover, time perception also has implications for time discounting—the impatience phenomenon of preferring good outcomes early rather than late, which can lead to self-control problems such as impulsive spending and obesity (Frederick, Loewenstein, and O'Donoghue 2002; Lynch and Zauberman 2006). Recent research (Kim and Zauberman 2009; Zauberman et al. 2009) shows that rates of time

discounting are determined by the subjectivity of time perceptions. Given this importance of time perceptions, our results are significant because we demonstrate the effect of an aspect that is integral to time: the units in which it is expressed.

Apart from contributing to the area of time perception, we also contribute to the area of numerosity (Bagchi and Li 2011; Burson, Larrick and Lynch 2009; Pelham et al. 1994; Wertenbroch, Soman, and Chattopadhyay 2007). We delineate conditions in which the numerosity prediction emerges, and the conditions in which it reverses. Finally, we add to research on the role of units (Chandran and Menon 2004; Gourville 1998; Ülkümen, Thomas, and Morwitz 2008). We show that units can be used as heuristics in making judgments, and are construed at a higher level than the associated numbers.

Our theorizing suggests that the use of units as heuristics should apply not just to time, but also to other quantities such as volume and weight. However, an interesting question for future research is whether the demonstrated effects for time will also hold for money. It has been shown that people rely more on search costs when search involves spending money, but rely more on heuristics (anchoring and compromise effect) when search involves spending time (Monga and Saini 2009; Saini and Monga 2008). Given these results, it is possible that the use of units as heuristics is higher for time than for money.

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The Impact of Price on Preference Consistency over Time

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Time-dependent changes in preferences have been studied in interdisciplinary areas such as behavioral decision making (Thaler, 1981), self control (Rachlin, 1995), and delay of gratification (Mischel, Shoda, & Rodriguez, 1989). Construal level theory (CLT, Liberman & Trope, 1998; Trope & Liberman, 2000, 2003) proposes that people's preference is time-dependent due to their tendency to focus on different aspects of future events depending on the time frame. People put more weight on the desirability-related aspect of a distant future event and like options with high desirability, whereas they focus more on the feasibility-related aspect of a near future event and prefer options with high feasibility (Trope & Liberman, 2003). This inconsistent preference over time leads consumers to regret their choice, have lower satisfaction or fail to carry out their committed choices (Gollwitzer, 1999; Soman, 2004). Thus preference consistency over time is critical from both the consumers' and marketers' perspective.

How can consumers overcome their preference inconsistency? Prior research has demonstrated several ways which help people overcome their inconsistency such as practicing or planning distant-future tasks in full detail (Gollwitzer, 1999; Trope & Liberman, 2003), switching their attention away from the concrete qualities of the immediate temptation and focus on its abstract qualities in the long term (Baumeister & Heatherton, 1996; Hoch & Lowenstein, 1991; Mischel, Shoda & Rodriguez, 1989), and using two different mental simulations—process vs. outcome simulations (Zhao, Hoeffler, & Zauberman, 2007). Our research extends research on preference consistency over time and proposes that introducing price information or simply increasing people's price sensitivity leads to preference consistency over time due to the increased importance perception of product quality. We report findings from four experiments to support our predictions.

In Experiment 1, we adapted the basic software package stimuli from Zhao, Hoeffler, and Zauberan (2007), but manipulated the prices of software packages as free of charge, \$10, or \$200. We replicated prior literature, illustrating that people have inconsistent preference over time for a free product (i.e., a higher preference for higher-desirability (feasibility) option in the distant (near) future). However, having price information (e.g., \$10 and \$200) increased preference towards the higher-desirability option in the near future which led to preference consistency over time.

In Experiment 2, we switched to a different product category (desks) to generalize our findings and tested the mediating role of perceived quality importance. To address a possible concern regarding unrealistic prices used in Experiment 1, we chose a price that was one of the representative market prices for desks. Again, we found that preference inconsistency obtained from no price conditions was overcome in the price conditions. Furthermore, our mediation analyses revealed that the perceived quality importance mediated the interactive effect of time and price on relative preference between two options.

The objective of Experiment 3 was to address a potential alternative account for the intertemporal preference consistency that price causes, namely the pain of paying (Prelec & Loewenstein, 1998; Rick, Cryder, & Loewenstein, 2008). One may argue that when people see the price information of a product, they feel pain as they realize how much they will have to pay to obtain the product, and that it is this pain that leads to a desire to get the best features to make up for the cost. If this is true, the effect of price information on preference consistency over time should vanish if we control for the pain of paying. To test this possibility, we used a scenario of winning a prize (e.g., a digital camera) from a lottery rather than paying for it themselves. Even for the prize product, we still found preference consistency in price conditions as opposed to no price conditions. This finding suggests that the driver of the intertemporal preference consistency is not the pain of paying.

Although we consistently demonstrated the effect of price on intertemporal preference in different product domains throughout experiments 1 to 3, one may still claim that giving the same price information for two different products is problematic. To answer this criticism, Experiment 4 was designed such that participants were sensitized to price prior to target products but no price information of the target products was actually given. To accomplish this, we used two surveys—purchase history (e.g., listing their purchase items and prices) and price surveys (e.g., indicating their WTPs for three products). We expected that this manipulation would make participants more sensitive to price and cause them to process the descriptions of the target products in a similar way as they have price information. Thus, even though they do not have the price information of the target products (i.e., restaurants), we believe that the price sensitivity manipulation will give rise to intertemporal preference consistency. The results of experiment 4 confirmed our expectation.

Taken together, we showed that including price information leads to preference consistency over time. Across four experiments, we obtained the same results in different product domains (e.g., software, desk, digital camera, and restaurant), and showed increased perception of quality importance as the underlying mechanism. Further, we demonstrated that this effect held for both extremely low and high prices (experiment 1), for a regular price (experiment 2), for a price even when people themselves are not paying and thus do not incur the pain of paying (Experiment 3), and when people are made sensitive to price without specific price information being given (Experiment 4).

We believe that this research makes several important contributions. First, it contributes to extend our understanding of the underlying mechanism for inducing preference or choice consistency over time by demonstrating that price information itself or price sensitivity helps people make consistent decisions, which may reduce their regret from their choice and increase their satisfaction. Second, contrary to previous literature on framing effects in pricing which has shown preference reversals, this research illustrates a positive

role of price by making people consider desirability information (e.g., the quality of a product) even if the decision is for near future. Thus, price information can be a useful cue which induces decision consistency over time.

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Time versus Money: The Influence of the Timing and Nature of Costs on Satisfaction

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The present research shows asymmetries in how the timing and nature of costs influence satisfaction. While the disconfirmation paradigm (Oliver 1980) suggests consumers hold expectations, experience performance and compare performance to expectations, determining satisfaction, limited attention has been paid to how the timing and nature of costs affect satisfaction. However, while a consumer may purchase a book at a bookstore and experience product performance immediately, they may also order books online, experiencing performance later. Further, individuals may incur temporal costs in the marketplace (e.g., waiting, searching). With one exception (Okada and Hoch 2004), the influence of temporal versus monetary costs on satisfaction has not been examined.

Research suggests that increases in the magnitude and/or salience of monetary costs may be negatively related to satisfaction (Johnson, Anderson, and Fornell 1995; Oliver and Swan 1989; Prelec and Lowenstein 1998). However, this cost-satisfaction relationship may reverse for temporal costs. Individuals evaluate products more favorably after expending shopping effort (Cardozzo 1965), value products higher after expending effort (Norton 2009), and exhibit greater job satisfaction after greater workplace effort (Brown and Peterson 1994). I suggest that cost salience moderates the relationship between costs and satisfaction, but in an asymmetric manner, depending on whether costs are temporal or monetary. That is, as salience of monetary costs decreases, satisfaction *increases*, while, as salience of temporal costs decreases, satisfaction *decreases*. I next discuss how the timing of costs may influence salience.

While prior research has shown that costs of time (versus money) matter less to individuals (Okada and Hoch 2004; Saini and Monga 2008), recent findings suggest people may consider temporal costs. Soster, Monga, and Bearden (2010) find that “accounting periods” influence whether individuals track costs of time (but not money). If temporal costs and benefits occur in the same accounting period, costs are tracked (i.e., are more salient). If they occur in different accounting periods, tracking attenuates. Accounting periods do not influence tracking for monetary costs. Further, as discussed earlier, when temporal costs are salient, satisfaction should be higher (Brown and Peterson 1994; Cardozzo 1965; Norton 2009). Combing these two perspectives, we predict individuals will be more satisfied with positive performance outcomes when costs of time are incurred and benefits are received in the same (versus different) accounting period(s). Further, since monetary cost tracking is not influenced by accounting periods, accounting periods should not influence satisfaction when money is spent. Formally stated:

H1: Given prior costs, people will be differentially satisfied with positive product performance depending on whether costs are in time or money, and whether costs are incurred in the same or different accounting period in which product performance is experienced, such that:

- a) For costs of time, satisfaction with product performance will be higher when costs and benefits occur in the same accounting period (versus different periods).
- b) For costs of money, satisfaction with product performance will not vary based on accounting periods.

Mental accounting suggests that individuals plan for costs (Heath and Soll 1996), creating categories of expenditures (e.g., food, entertainment) and allocating funds to accounts across time periods (e.g., a monthly budget; Read, Loewenstein, and Rabin 1999). Considering the book example, an individual may allocate \$50 to their monthly "leisure" budget. It seems that the cost of a \$10 book from the full account at the beginning of the budgetary period would be less salient than \$10 spent towards the end of the budgeting period, when the leisure account's balance is lower (i.e., the account has been depleted through other expenditures). As discussed earlier, when monetary costs are less salient, satisfaction should be higher (cf. Johnson et al. 1995, Prelec and Loewenstein 1998). Combing these two perspectives, we predict individuals will be more satisfied with positive performance outcomes when costs of money are incurred at the beginning of a budgeting period (versus at the end of the budgeting period). Furthermore, since time is continuously replenished, budgeting periods should not affect satisfaction for temporal costs. Formally stated:

H2: Given prior costs, people will be differentially satisfied with positive product performance depending on whether costs are in time or money, and whether the costs are incurred at the beginning or ending of a budgeting period, such that:

- a) For costs of money, satisfaction with product performance will be higher when costs are incurred at the beginning of a budgeting period (versus the ending of a budgeting period).
- b) For costs of time, satisfaction with product performance will not vary based on budgeting periods.

To test H1, a 2 (type of cost:time vs. money) \times 2 (accounting period:same vs. different) between-subjects design was employed. Participants were told they had spent time or money to receive a restaurant dinner on the same night or a week later. All participants were exposed to positive outcomes. One hundred and forty undergraduate students were randomly assigned to conditions.

Satisfaction with the restaurant experience was analyzed in a 2 \times 2 ANOVA. Only the 2-way interaction effect was significant ($F(1,136)=6.96; p<.01$). For temporal costs, satisfaction was greater when costs and benefits occurred in the same accounting period ($M_{\text{TIME_SAME}}=3.88$ vs. $M_{\text{TIME_DIFFERENT}}= 3.03; F(1,136)=4.96; p<.05$). Accounting periods had no influence when money was spent ($M_{\text{MONEY_SAME}}= 3.06$ vs. $M_{\text{MONEY_DIFFERENT}}= 3.61; F(1,136)=2.23; p=.14$).

To test H2, a 2 (type of cost:time vs. money) \times 2 (budgeting period:beginning vs. ending) between-subjects design was employed. Participants were told they had spent time or money to receive a ride on a new ride at an amusement park, and that costs were incurred either just after or just before their monthly planning of time and money expenditures. All participants were exposed to positive outcomes. Eighty-two undergraduate students were randomly assigned to conditions.

Satisfaction was analyzed in a 2 \times 2 ANOVA. Only the 2-way interaction was significant ($F(1,78)=4.51; p<.05$). Satisfaction was higher when monetary costs were incurred at the beginning of the budgeting period ($M_{\text{MONEY_BEGINNING}}=1.68$ vs. $M_{\text{MONEY_ENDING}}=.57; F(1,78)=5.21 p<.05$). Budgeting periods did not influence satisfaction for temporal costs ($M_{\text{TIME_BEGINNING}}=1.52$ vs. $M_{\text{TIME_ENDING}}=1.86; F(1,78)=.49; p=.49$). Similar patterns emerged for likelihood to repurchase the ride ($F(1,78)=4.05; p<.05$).

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6.2 Symposium: Beyond Construal: Examining Broad Implications of Psychological Distance and Consumer Judgment

Room: Pine Room

Chair: Lawrence Williams & A. Peter McGraw, University of Colorado, USA

Discussion Leader: Yaacov Trope, New York University

When Distance Does Not Equal Construal: The Dissociable Impact of Psychological Distance and Abstraction on Charity

Lawrence Williams, University of Colorado, USA*

Randy Stein, Yale University, USA

Laura Galguera, University of Oviedo, Spain

Recent research suggests that psychological distance and cognitive construal are inextricably linked, such that psychological distance often promotes abstract thinking, and psychological closeness often promotes concrete thinking. To complement this work, we propose that in some cases psychological distance and cognitive construal are dissociable. Because distance is associated with emotional detachment, but abstract thinking is associated with positive affect, these constructs should have different effects on keenly emotional judgments and decisions (e.g., in the charity domain).

Guided by construal level theory (CLT; Trope and Liberman 2003), researchers have repeatedly shown that psychological distance and abstract thinking have similar, if not identical, effects on the way people see the world. Both psychological distance and abstract thinking shift people's focus during decision-making, such that distant and abstract thinkers focus more on the desirability of action, compared to people thinking proximately or concretely (Liberman and Trope 1998; Liu 2008). Even though psychological distance and abstract construal have similar effects on people's judgments, decisions, and goals, it is an open question whether or not distance and abstraction always go hand in hand. Emotional judgments and decisions are one area in which the effects of distancing may be separable from the effects of construal. Research in the CLT tradition has focused almost exclusively on the cognitive antecedents and consequences of psychological distance, but the extent to which changes in construal alter the affective consequences of psychological distance remains unclear.

Two investigations provide a reasonable starting point for building a theory of affective psychological distancing effects within CLT. Labroo and Patrick (2009) demonstrate that positive affect promotes broad, abstract thinking whereas negative affect promotes a focus on proximal goals and immediate concerns (see also Fredrickson's broaden-and-build theory; Fredrickson 2001). A second set of investigations demonstrates that when people are primed to think about future activities in a concrete (versus abstract) manner, they subsequently forecast that they would experience less enjoyment engaging in an unrelated activity (buying a car), and when people are prompted to think about specific (versus global) elements of a future activity, they expect to enjoy that activity less (Wesp, Sandry, Prisco, and Sarte 2009). Taken together, these results suggest that positive affect is aligned with abstract thinking, and negative affect is aligned with concrete thinking. If one adopts the CLT proposition that psychological distance and mental construal similarly affect judgment and choice (as suggested by the literature; Trope, Liberman, and Wakslak 2007), then one might predict an affective valence effect of psychological distance on judgment and choice, such that psychological distance is associated with positive feelings, and psychological closeness is associated with negative feelings.

However, other theoretical perspectives suggest that psychological distance matters more for affective intensity, not valence. In this view, distance reduces, but closeness enhances, the affective intensity of situations. For example, people primed with physical distance reported weaker emotional attachment to their family and hometown and less negative affect following exposure to violent media, compared to those primed with physical closeness (Williams and Bargh 2008). These results did not involve changes in abstract versus concrete construal, but rather demonstrated the ability for physical distance cues to attenuate the affective quality of judgments (Williams and Bargh 2008). Similarly, McGraw and Warren (2010) find that physical distance increases humor responses to moral transgressions, because distance reduces the threat associated with these immoral acts. Moreover, recent research demonstrates that emotionally intense situations are experienced as psychologically closer than less emotional intense situations (Van Boven, Kane, McGraw, and Dale 2010).

Thus, although recent research on psychological distance and construal level suggests that these two constructs are completely overlapping and even interchangeable (Bar-Anan et al. 2006; Labroo and Patrick 2009), our analysis suggests that altering the level at which one cognitively construes a decision should alter whether one focuses on the positive versus negative affective qualities of the decision, but altering the degree of psychological distance one experiences during a decision should alter the affective intensity associated with the decision. Thus, a particularly emotional decision context is ideal for studying the dissociation between distance and construal. Decisions involving charitable donations fit this description; such decisions are keenly influenced by emotion (Isen & Levin, 1972). On one hand, in terms of cognitive construal, abstract, broad, high-level construal (versus concrete, narrow, low-level construal) fosters a focus on positive affect (Wesp et al. 2009), which facilitates altruism and donating time to charities (Liu and Aaker 2008). On the other hand, in terms of psychological distance, being in a psychologically distant (versus close) mindset should lead to emotional detachment and therefore reduce people's concern for others' welfare and their interest in charity.

By examining the separable effects of psychological distance and mental construal on charity, we build upon CLT by presenting a complementary corollary accounting for the special effects of distance on affective experiences (Williams and Bargh 2008). Across three studies, we find broad evidence suggesting that both psychological closeness and abstract thinking promote stronger interest in helping others in need. Importantly, this relationship holds whether people are thinking about helping in general or helping a particular group of people. Participants primed to think abstractly reported a stronger inclination to help others, compared to people primed to think concretely. In addition, people primed with psychological closeness reported a stronger inclination to help others, compared to people primed with psychological distance. In our third study, both psychological closeness and abstraction led to greater actual donation rates to a specific charity, and the effect of psychological distancing, but not abstraction, was mediated by self-reports of emotional empathy. These data provide compelling evidence that psychological distance and abstraction do not always go hand in hand.

Too close for comfort or too far to care? The role of psychological distance in humor appreciation

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Consumers and marketers regularly pursue humor. Humor benefits consumers by providing immediate pleasure and enhancing social, psychological, and physical well-being (Keltner and Bonnanno 1997; Martin 2007). Humor also benefits marketers by improving

consumer attitudes toward advertisements, attracting consumer attention, and enhancing consumer memory for marketing communications (Alden, Mukherjee, and Hoyer 2000; Eisend 2009). Our research explores two factors that influence the consumption of humor: the degree to which a stimulus is aversive (i.e., violation severity) and the observer's psychological distance from the stimulus.

Our research tests the benign violation theory (BVT) of humor, which proposes that humor occurs when a violation is simultaneously perceived to be benign (McGraw and Warren 2010; Veatch 1998). Amongst other things, violations include breaches of social norms (e.g., strange behaviors; flatulence), cultural norms (e.g., unusual accents, most scenes from the movie *Borat*), linguistic norms (e.g., puns, malapropisms), and moral norms (disrespectful behavior; bestiality; McGraw and Warren 2010; Veatch 1998). Violations challenge one's view of world, and tend to be aversive, imbued with negative affect, and threatening. In order to be seen as benign, however, the violation cannot be too threatening. Therefore, either too much or too little threat may reduce perceptions of humor.

Because psychological distance reduces threat, distance facilitates benign appraisals for extremely aversive stimuli (severe violations). Consistent with this view, prior research suggests that social distance and spatial distance can make severe violations funnier (Hemenover and Schimmack 2007; McGraw and Warren 2010). Severe violations that are psychologically close, such as a friend falling into an open sewer, may be too threatening to also interpret as benign. But if that person is a stranger, the added social distance makes the violation seem less threatening and hence easier to see as benign. Therefore, as previously documented, psychological distance from a severe violation should make the violation more humorous.

Mild violations, on the other hand, pose little threat. Consequently, a mild violation, such as stumbling on a curb, may seem unexceptional when psychologically distant (i.e., when it occurs to a stranger), because distance may completely eliminate the perceived threat. Said another way, adding psychological distance to mild violations may make the situation entirely benign, thereby reducing perceptions of humor (because the event is not judged to be a violation at all). The BVT suggests then that moving closer to mild violations may facilitate the perception of a benign violation. For example, a small gaff, like stumbling on a curb, may be funnier when it afflicts a friend rather than a stranger. In brief, the theory predicts a crossover interaction due to violation severity and psychological distance.

Independent of its effect on threat reduction, psychological distance also influences cognitive construal (Trope and Liberman 2003; Williams, Stein, and Galguera 2010). Construal level theory (CLT) proposes that psychological distance facilitates abstract, global interpretations of a situation and psychological closeness facilitates concrete, detailed interpretations (Trope and Liberman 2003; Trope, Liberman, and Wakslak 2007). A CLT account suggests that distance could increase humor by encouraging an abstract mindset. Abstract mindsets facilitate multiple interpretations of a situation, a necessary condition for humor according to a number of humor theories including the BVT (Apter 1982; Hong and Lee 2009; Koestler 1964; McGraw and Warren 2010; Veatch 1998; Wyer and Collins 1992). A CLT account, however, predicts a main effect of psychological distance. According to CLT, distance should increase perceptions of humor in response to all violations regardless of severity level.

The predicted crossover interaction between violation severity and psychological distance provides compelling evidence for the BVT because neither construal level theory nor alternative humor theories can account for it. Three experimental studies provide support for this prediction by showing that psychological distance, manipulated by increasing social distance (Study 1), hypotheticality (Study 2), and perceived spatial distance (Study 3), increases humor perceptions for severe violations but decreases humor perceptions for mild violations.

Study 1 shows the interaction between violation severity and social distance. Participants viewed one of two versions (a mild violation or a severe violation) of a Facebook status update. The severe violation featured a person inadvertently paying a large sum of money, \$1880, to a charity. The mild violation featured the person inadvertently paying a much smaller sum, \$50. Distance was manipulated by changing the identity of the target from a stranger to a close friend. Respondents perceived more humor when the severe violation occurred to a stranger, whereas respondents perceived more humor when the mild violation occurred to a close friend.

Study 2 shows the interaction between violation severity and hypotheticality. We presented respondents with potential violations in the form of strange images from a humor website. The severe violation featured a man putting his finger in his nose and out his eye socket. The mild violation featured a man with an icicle beard. Distance was manipulated by changing the source of the image from a website that features either “fake” photos that had ostensibly been retouched or “real” photos that had not been retouched. Respondents perceived more humor when the severe violation was presented as fake, whereas respondents perceived more humor when the mild violation was presented as real.

Study 3 shows the interaction between violation severity and perceived spatial distance. Depending on the participant’s condition, we presented one of the images from study 2 on a computer screen. For half of participants, the image appeared to be on a wall at the end of a hallway (far away from them), but for the remaining participants, the image appeared to be on a wall near the front of a hallway (close to them). Respondents judged the severe photo to be funnier when presented far away, but judged the mild photo funnier when presented up close.

The studies reveal that both the extent to which something is aversive and its distance jointly determine when it is funny and when it is not – a prediction that has implications for the design of humorous marketing communications and consumption experiences.

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Malleable Memories: The Moderating Effect of Knowledge on Construal Mindsets When Reconstructing History

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While we often speak of the past, present, and future as a series of distinct entities lying on a linear continuum, behavioral, neurological, and even personal experience underscore that time doesn’t behave in our minds in quite this fashion. The past and the future are constructed and reconstructed based on the present while simultaneously influencing the construction of the present (Johnson and Sherman 1990). Temporal judgments are particularly susceptible to contextual influence given that temporal information is typically associatively stored with memories (Friedman and Wilkins, 1985; Hintzman, Block, and Summers, 1973) and requires activation of numerous brain regions upon recall (Hayes, Ryan, Schnyer, and Nadel, 2004). Thus, outside of particularly salient personal or quite recent events, temporal judgments are typically reconstructed.

This work examines how construal mindsets influence the reconstruction of temporal judgments from memory and another judgment tightly linked to temporal distance—blame. Construal level theory (CLT) proposes a relationship between the mental representation of events and psychological distance such that things that are more distant—whether temporally, spatially, socially, or hypothetically—are construed in a more high-level, schematically abstract, and decontextualized fashion that includes the core features of events, while

those that are more near are construed in a more low-level, concrete, and contextualized fashion that includes incidental features (Liberman, Sagristano, and Trope 2002; Trope and Liberman, 2000; Liberman and Trope, 1998). Distance influences how objects and events are construed, and these construals influence predictions, evaluations, and behaviors in a wide variety of judgments.

The vast majority of previous work is forward looking and predictive in nature – for example, examining how framing a scenario as in the near versus distant future affects its evaluation (see Liberman and Trope 2008 for a brief review). Our work is the first to specifically examine the relationship between construal level and distance in the context of reconstructing past events. How is a past event viewed today if reconstructed in an abstract versus concrete mindset? What is the effect on judgments of temporal distance? On those of blame? On the phenomenal experience of recall?

We examine these questions in the context of memory for news events involving corporations (Dell, Dole), celebrities (Britney Spears, Heath Ledger), and institutions (U.S. federal government) as blameworthy parties. We focus on negative events for several reasons. First, news events occur at a verifiable point in time, allowing for more robust testing of temporal distance, removing additional noise that might come from utilizing personal events. Second, negative events provide a natural context for studying downstream judgments like blame since previous work in the attribution literature connects greater temporal distance with greater propensity to blame (Moore et al. 1979; Peterson 1980; Frank and Gilovich 1989.) Third, much of the news dominating the media is negative and understanding how these events can be remembered in ways that materially affect perception is an important public relations issue.

In this context, we examine the critical role knowledge plays in moderating the effect of construal mindset on judgments of temporal distance and blame. Individuals who know more about a subject typically have greater high-level information in memory derived from inferences drawn from lower-level information. Furthermore, the most abstract information tends to be the most accessible because it is used in judgment and decision making (Wyer and Srull 1989; Ericsson and Kintsch 1995; Reyna and Lloyd 2006). In contrast, those individuals who know less about a subject area tend to hold more disparate pieces of information in memory in a less schematic format (Alba and Hutchinson 1987; Mitchell and Dacin 1996). These inherently different ways of storing information in memory—a higher-level, schematic format versus a lower-level, contextualized format—correspond to abstract versus concrete levels of construal. Thus when mindset and information structure—dictated by knowledge—correspond, the process of recall is easier, events are judged as more recent, and responsible parties are blamed less for events that transpired. This is the first work to identify a moderator that can reverse the association typically observed in CLT, illustrating an instance where concreteness is associated with distance instead of proximity: for individuals with greater knowledge about events.

Consistent with previous work in CLT, we find that lower knowledge individuals feel events are more near when recalled under a concrete mindset than an abstract one. However, higher knowledge individuals feel events are more near when recalled under an abstract mindset than a concrete one (Studies 1 through 5)—the first such reversal observed in the relationship between construal level and distance. This same interaction extends to judgments of blame (Studies 2, 4, and 5), and judgments of temporal distance drive those of blame (Studies 2 and 5). Exploring the mechanism behind this interaction, we hypothesized that lower knowledge individuals with less inference-driven information in memory find it easier to recall events in a concrete mindset than an abstract one. But because higher knowledge individuals tend to hold more information in memory in a hierarchical format with the most abstract information most accessible, and because activating lower level information requires greater spreading activation, they find recalling events in an abstract—versus concrete—mindset is easier. Evidence from written protocols (Study 3), retrospective evaluations of retrieval ease (Study 4), and reaction time (Study 5) support this hypothesis. These effects are robust to multiple operationalizations of temporal distance, blame, and knowledge and hold for events from a few weeks to several years in the past.

Thus, we illustrate that the mindset employed at recall can materially shape how past events are reconstructed by: 1) examining the effect of construal mindsets when reflecting on the past, 2) illustrating that mindset can materially influence how an event is reconstructed in terms of temporal distance and blame, 3) identifying a critical moderator for the relationship between construal level and distance that can actually reverse the relationship between typically observed between construal level and distance, and 4) highlighting a potential mechanism to reduce the effects of negative publicity without introducing new information.

6.3 Symposium: Unraveling Affective Decision Making: Do How We Pay and How Much We Pay Alter Our Preferences?

Room: Birch Room

Chair: Kuangjie Zhang, INSEAD

Discussion Leader: Suresh Ramanathan, University of Chicago, USA

Cash or Credit? Why Do We Buy the Triple Chocolate Cake When We Pay With Cash?

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Lauren Block, Baruch College, USA

As unemployment and financial worries steadily increase during this era of global recession, so too do sales of high calorie, indulgence items (Miles 2009). Nutritionists call this phenomenon “recession obesity” and attribute it to the low cost of junk food relative to healthier alternatives (Everett and Grogan 2009). We suggest a psychological motivation that drives high calorie indulgences. Specifically, when the imputed costs of payment are higher, such as when making purchases using cash (vs. a credit card) or when pain associated with cash spending is higher, increasing the hedonic benefits of consumption blunts the pain of payment.

A growing body of literature on the psychological differences in “pain of payment” demonstrates that consumers spend differently depending on the payment mode used. Once the decision to make a purchase has been made, the use of a credit card can lead to more spending compared to cash or checks (Prelec and Loewenstein 1998; Prelec and Simester 2001; Soman 2001). A recent explanation argues that the more transparent the outflow, as in a cash payment (versus credit), the greater the pain of payment (Raghubir and Srivastava 2008). In other words, the imputed cost of consumption (defined as the answer to “How much is this pleasure costing me?” Prelec and Loewenstein 1998) is greater for cash than for less vivid or decoupled forms of payment.

We suggest that the greater the imputed cost of consumption, the greater the likelihood of choosing a more indulgent, high-calorie food. The pain of paying is hedonically costly (Prelec and Loewenstein 1998). Support for this theorizing can be found in a large body of literature on mood management that demonstrates that when individuals experience negative affect, they seek reparative action (Connolly, Ordóñez, and Coughlan 1997; Klinger 1975; Tice, Bratslavsky, and Baumeister 2001). Notably, shopping and consumption activities often serve as one such reparative mechanism (Woodruff 2001). Specifically, individuals seeking to repair negative moods consume larger amounts of snack foods (Tice et al. 2001) and more hedonic and indulgent foods (Garg, Wansink, and Inman 2007; Mick and DeMoss 1997). Because the pain of payment is higher with cash than with other decoupled forms of payments (such as credit or debit), we posit that consumers will choose more indulgent foods when purchasing with cash.

In Study 1, we tested if consumers paying in cash indulge more in higher calorie consumption than do those who pay with a card. We recruited 125 customers at a large, national frozen yogurt franchise retailer. Respondents reported the product purchased and provided responses to several other measures. Indulgence was measured as total calories consumed. We included gender as a covariate.

As expected, consumers who paid with cash consumed more total calories than those who paid with a card (credit or debit; $M_{cash} = 439.09$ k cal, $SD = 252.83$ vs. $M_{card} = 301.85$ k cal, $SD = 176.50$; $F(1, 122) = 10.85$, $p < .002$) and imputed higher costs when paying with cash (i.e., their chosen product was more expensive; $M_{cash} = 4.49$, $SD = 1.49$ vs. $M_{card} = 3.84$, $SD = 1.23$; ($F(1, 122) = 6.40$, $p < .02$). These imputed costs partially mediated the effects of method of payment on calorie consumption.

We then replicated these findings in the lab. We recruited 147 undergraduates and first made the payment mechanism (cash or credit) salient. We then asked participants to choose products from a restaurant menu that they would be interested in eating for an afternoon snack using the payment method made salient. Consumers who paid with cash selected foods with more calories relative to those who paid with a credit card ($M_{cash} = 500.92$ k cal, $SD = 258.74$ vs. $M_{card} = 423.49$ k cal, $SD = 211.44$; $F(1, 144) = 4.60$, $p < .04$) and also imputed higher costs ($M_{cash} = 3.70$, $SD = 1.43$ vs. $M_{card} = 3.25$, $SD = 1.37$; $F(1, 143) = 3.95$, $p < .05$; one participant did not respond to this measure).

Because our theorizing is predicated on differences in pain of payment, or imputed costs associated with cash vs. credit rather than method of payment per se, our results should hold when we vary only imputed cost, but keep method of payment constant. To test this, in Study 3 we only compare cash conditions, which vary by how difficult it was to earn this money. The more difficult it is to earn money, the more painful it is to make a payment, and the higher the imputed cost will be. We recruited 229 undergraduates and asked them to select food items for an afternoon snack from a menu. All participants were told they would be paying with cash earned at their new job. Imputed costs were manipulated by varying how difficult it was to earn money. As expected, when difficulty of earning was higher, consumers selected foods with more calories relative to when difficulty of earning was lower ($M_{high\ difficulty} = 430.77$ k cal, $SD = 233.27$ vs. $M_{low\ difficulty} = 348.57$ k cal, $SD = 168.04$; $F(1, 226) = 6.82$, $p < .01$). Moreover, participants' perceptions of imputed costs were higher when difficulty of earning money was higher relative to lower ($M_{high\ difficulty} = 4.12$, $SD = 1.37$ vs. $M_{low\ difficulty} = 3.24$, $SD = 1.38$; $F(1, 226) = 24.50$, $p < .0001$). Imputed costs also mediated the effect of difficulty of earning on indulgence.

Together these studies suggest that when imputed costs are high, consumers indulge more. These findings have important implications for consumers, managers, and public policy analysts, but in particular for low-income consumers, who tend to have less access to available credit and for whom earning sustainable wages is more difficult.

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The Stability of Temporal versus Monetary Valuations

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Consumers constantly make product decisions involving temporal and/or monetary considerations. For example, one might have to choose between a high-end, more expensive product and a low-end, cheaper product, between charitable projects that involve the

commitment of more versus less time, or even between choices that entail direct time-money tradeoffs, such as taking a bus to the mall versus opting for the faster but more expensive option of taking a cab.

The primary objective of the current work is to study how people perceive these two fundamental economic resources—time and money—and how they might treat the two differently in the context of their decision making. In particular, we are interested in the stability or consistency of consumers' expressed valuations of temporal versus monetary resources across different product-choice occasions. The main contributions of this work are twofold. First, a theoretical understanding of how thinking about time versus thinking about money affects preference consistency can provide further insights into the fundamental differences between these two important economic resources and their downstream behavioral consequences. Second, from a more practical marketing standpoint, this work also suggests potential important antecedents for preference consistency, which is a basic assumption in many marketing activities including market research, new product development, and customer relationship management.

Pertaining to the question of which resource would generate greater preference consistency over time, the extant literature seems to point towards opposite directions. On the one hand, prior research that has examined people's risk attitudes and the magnitude of inter-temporal discounting of time versus money suggests that the valuation of time is more ambiguous and variable than the valuation of money (e.g., Okada and Hoch 2004; Soman 2001; Zauberaman and Lynch 2005). This greater ambiguity in time could translate into greater preference inconsistency for temporal valuations than monetary valuations, and may stem from people's perception of time (relative to money) as being less fungible, less finite, less accountable, less predictable, as well as less earned than endowed; it could also be a consequence of people having less experience using time (vs. money) as an exchange resource in economic transactions.

On the other hand, some recent evidence suggests that the opposite might be true. Time considerations naturally evoke more emotional responses than monetary considerations (e.g., Mogilner and Aaker 2009; Van Boven et al. 2010), tend to be more heuristic than analytical in nature (Saini and Monga 2008), and are less likely to be guided by piecemeal mental-accounting rules (DeVoe and Pfeffer 2007; Soster, Monga, and Bearden 2010). The greater emotionality and holistic thinking associated with temporal valuations (vs. monetary valuations) in turn make them less susceptible to cognitive noise and generate a higher degree of preference consistency (Epstein 2003; Lee, Amir and Ariely 2009).

To test these two competing predictions, we conducted a series of six experiments. In each experiment, participants were first given as much time as they needed to examine a set of nine sequentially presented product options (e.g., international flights, software packages); next, they were shown all pair-wise combinations of these options and asked to choose the option they preferred in each pair. Participants were induced to base their choices on either a time-related attribute (e.g., flight time or software setup time), a money-related attribute (e.g., airfare or cost of software package), or neither. To measure the degree of consistency in each participant's set of expressed preferences, we computed the number of instances of transitivity violation such that, for a subset of three options (A, B, and C), the participant chose option A over option B, option B over option C, but option C over option A (Kendall and Babington Smith 1940); the more the number of such intransitivity cycles, the more inconsistent the participant's underlying preferences among these options were.

Across six experiments, we found convergent support for the latter prediction. **Experiments 1A, 1B, and 2** indicate that thinking about time leads to greater preference consistency than thinking about money. This effect was robust across different product categories (air flights and software packages) and experimental approaches of manipulating the consideration of time versus money, and could not be sufficiently explained by either differential real or perceived cognitive difficulty in decision making across conditions. **Experiments 3 and 4** provide direct support for the emotion-based explanation—that monetary valuations generate

greater preference inconsistency because of a lack of emotional tags and greater susceptibility to cognitive noise: whether situationally induced (Experiment 3) or measured (Experiment 4), a greater reliance on one's feelings in monetary valuations can significantly improve the consistency of one's preferences. Finally, **Experiment 5** suggests that the preference-consistency advantage that time-based valuations have over money-based valuations due to emotional tags has another boundary condition: this advantage is attenuated when the time variability of the choice options is increased. This latter result allows us to reconcile two streams of research, which, on the surface, seem to provide contradictory predictions about preference consistency.

While there has been a growing body of work documenting a host of distinctions between temporal versus monetary valuations, some recent work has pointed to the possibility that thinking about time might lead individuals to more effectively pursue personal happiness in their lives, for instance, by making them more likely to choose experiential purchases over material purchases, or to allocate more time in their daily lives to social interactions than to their professional occupations (Mogilner 2010). To the extent that preference consistency is sought after and considered a benchmark of decision quality (Bem 1972; Tversky 1969), our results suggest yet another potential upside of focusing on the value of time than of money. Future research can further explore other potential benefits of thinking about time, such as consumption satisfaction, and both physical and psychological well-being.

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This Number Just Feels Right: The Impact of Roundness of Numbers on Hedonic Evaluations

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Imagine that you are buying a camera for a vacation and you come across two cameras on an online store. One camera is priced at a round number of \$200.00, whereas the other is priced at a sharp number of \$203.96. Considering all other features are similar, how would these different price tags affect your liking of the cameras? Prior research on psychology of numbers suggests that round numbers appear less factual and more intuitive than sharp numbers (e.g., Schindler and Yalch 2006). More interestingly, recent research in neuroscience provides preliminary evidence suggesting that round numbers (e.g., \$20.00), as compared to sharp numbers (e.g., \$20.23), are likely to be associated with more of an automated and affective processing (McClure 2010). Furthermore, research on consumption-motivation suggests that hedonic (vs. utilitarian) consumption is characterized by a more automated and affective processing (e.g., Khan and Dhar 2006; Shiv and Fedorikhin 1999). Drawing upon a synthesis of the two streams of research—psychology of numbers and hedonic consumption—we hypothesize that round number prices as compared to sharp number prices should lead to a greater liking for hedonic products, an effect we call the “round-number” effect. Furthermore, we propose that the proposed round-number effect is moderated by consumers' reliance on feelings.

We tested the aforementioned hypotheses in a series of five studies. Study-1 examined the main hypothesis related to the round-number effect. Participants in a university were approached for a field study. As a part of a shopping survey, they were asked to choose a food item from a set of four food items (granola bar, chocolate bar, cut pineapple, and cookies). The food items were displayed on a table with a price tag, which was either a round number (\$2.00) or a sharp number (\$2.37). We coded the choice measure as a binary variable, with the choices of chocolate bar and cookies as hedonic and the other two as utilitarian. A logit analysis with hunger measure as a covariate revealed a significant main effect of price tag. Specifically, the round-number (vs. sharp-number) price tag led to more hedonic food choices.

A primary objective of study-2 was to test our underlying conceptualization related to reliance on feelings. We argue that if the round-number effect is driven by one's reliance on feelings then these effects should be attenuated for those who are high on need for cognition (NFC). To elaborate, we argue that people who are high on NFC rely less on their feelings (see also, Greifeneder, Bless and Pham 2010), and therefore would be less likely to be influenced by the demonstrated round-number effects. In order to examine our hypothesis, we recruited participants in an online study a day before the Valentine's Day. Participants were asked to imagine that they had come across a flower bouquet while buying a gift for their valentine from an online store. The flower bouquet was either priced at a round number (\$18.00) or a sharp number (\$18.53). After evaluating the flower bouquet, participants completed an 18-item NFC scale (Cacioppo, Petty, and Kao 1984). An ANOVA analysis revealed a significant main effect of price qualified by a significant interaction between price and NFC. Specifically, participants in the round-number condition reported greater liking of the flower bouquet than those in the sharp-number condition. These participants also indicated greater anticipated happiness if they were gifted this flower bouquet on Valentine's Day. However, these effects were attenuated for those high on NFC.

Study-3 sought to provide further support for our reliance on feeling conceptualization by manipulating one's reliance on feelings before the product evaluation task. Participants evaluated and reported their anticipated satisfaction with a digital camera-binocular either priced at a round number (\$80.00) or a sharp number (\$81.43). However prior to the evaluation task, participants were either primed to rely on feelings or on calculations (adapted from Hsee and Rottenstreich 2004). In the priming task, participants answered five-questions that either required them to examine and report their feelings (feelings-prime) or required them to make conscious and deliberate calculations (calculation-prime). Our results indicate a significant price by priming interaction. Specifically, those in the feeling-priming condition, indicated higher anticipated satisfaction with the product when it was priced at a round number (vs. sharp number). More interestingly, our results show that in the calculation-priming condition, participants reported greater anticipated satisfaction with product when it was priced at a sharp number (vs. round number).

In Study-4, we provide stronger support for the reliance on feelings conceptualization by manipulating the consumption goal (hedonic versus utilitarian). Specifically, in line with previous research, we argue that consumers are more likely to rely on their feelings (vs. calculation) for hedonic (vs. utilitarian) consumption. Thus, in study-4, participants were asked to imagine buying a camera either for a family vacation (hedonic-consumption goal) or for a photography class (utilitarian-consumption goal), with the price tag randomly displayed at either \$200.00 (round-price) or \$203.96 (sharp-price). To make the camera evaluation procedure more realistic, two sample pictures purportedly taken from the camera were presented. Participants first evaluated the sample pictures and then proceeded to report their anticipated satisfaction with the camera. A significant price by consumption goal interaction emerged. When buying a camera for a family vacation, round-number price (vs. sharp-number price) led to greater anticipated satisfaction with the camera. In contrast, when buying a camera for a photography class, in line with Study 3 results, sharp-number price (vs. round-number price) led to greater anticipated satisfaction with the camera. The same pattern of results was observed on perceived quality of the sample pictures.

In Study-5, we moved away from pricing contexts and examined whether merely priming round (vs. sharp) numbers in an unrelated task could affect subsequent choices. Participants participated in a study purportedly designed to test participants' size perception. Specifically, participants were asked to sort a few number images according to the physical size of the image. Half of the participants received round number images, whereas the other half received sharp numbers. After the priming procedure, participants were asked to choose one of the two co-workers that they would like to work with (adapted from Dhar and Wertenbroch 2000). Our results show that participants primed with round (vs. sharp) numbers showed stronger preference for a "fun but less efficient" colleague over an "efficient but somewhat arrogant" colleague.

Together, these results suggest that round numbers, as opposed to sharp numbers, enhance consumer preference for more hedonic as compared to utilitarian experiences, and these effects are moderated by consumers' reliance on feelings versus calculation. Implications for marketers are discussed.

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6.4 Individual Papers: New Frontiers in Cultural Research

Room: Oak Room

Chair: Huifang Mao, University of Central Florida

How Bicultural Consumers' Respond to Message-Incongruent Culture Cues

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Marketers find it difficult to target bicultural consumers, such as Asian Americans or North African French immigrated at a young age or born after their parents migrated. Such bicultural consumers have internalized beliefs, values, and norms of two different cultures which both are connected to their self and identity, so that both ethnic and mainstream culture cues (e.g., symbols, foods and landmarks tied to a culture) may activate a cultural identity and increase the accessibility of related knowledge structures (Briley and Aaker 2006; Hong et al. 2000; Luna, Ringberg and Peracchio 2008). Culture cues may thus activate an identity that is incongruent with the identity targeted by an advertising message. This possibility has received little attention in the literature, which has mainly studied the effects of *ethnic* culture cues on the evaluation of ethnic-targeted products and ads by consumers who belong to an ethnic minority (e.g., Forehand and Deshpandé 2001, Grier and Deshpandé 2001; Luna et al. 2008; Reed 2004). Based on, among others, the literatures on identity-based motivation (e.g., Oyserman 2009), and consumer self-concepts (e.g., Reed 2004), and in line with some of the findings by Brumbaugh (2002), we argue that bicultural consumers' response to targeted messages depends on which aspect of the self is active at the time of message exposure. We predict that (1) exposure to *ethnic* culture cues should lead bicultural consumers to less positively respond to messages targeted at mainstream consumers, and that (2) exposure to *mainstream* culture cues should lead to less positive responses to messages targeted at ethnic consumers. The three studies in this paper were conducted in the Netherlands, and focus on consumer response to ads featuring either Turkish (study 1), or Chinese (studies 2 and 3) ethnic versus Dutch mainstream spokespersons, paired with coincidental exposure to mainstream or ethnic culture cues.

Study 1 used a 2 (spokesperson ethnicity: ethnic vs. mainstream) \times 2 (culture cues: ethnic vs. mainstream) \times 2 (participants: bicultural vs. monocultural) between-participants design, and shows that *bicultural* consumers respond less favorably to ads with an incongruency between spokesperson ethnicity and culture cues. 185 student participants (either second-generation members of the Turkish ethnic minority or monocultural Dutch consumers) were shown an ad for a non-profit organization, featuring a spokesperson of either Turkish (ethnic) or Dutch (mainstream) descent. Culture cues were manipulated by varying the ad's background to be Turkish or Dutch. For both dependent variables, i.e., identification with the spokesperson, and donation amount, we found the expected three-way interaction between participant culture, spokesperson ethnicity, and culture cues. For bicultural participants we found the expected negative effect of incongruency between spokesperson ethnicity and culture cues. Biculturals donated less and

identified less strongly with the *ethnic* spokesperson when he was presented together with mainstream (vs ethnic culture cues), and donated less and identified less strongly with the *mainstream* spokesperson presented with ethnic (vs. mainstream) culture cues. There were no significant effects for monocultural Dutch participants, ruling out an alternative explanation where this effect is caused by a general preference for congruency between culture cues and spokesperson ethnicity.

Study 2 zooms in on the finding that bicultural consumers respond less favorably to ethnic and mainstream spokespersons when they are presented with incongruent culture cues. Study 2 compared incongruent culture cues to a control condition in which no culture cues are presented. While Study 1 assessed the consequences of culture cues embedded in the same ad as the target spokesperson, Study 2 presented the culture cues and target spokesperson sequentially. Study 2 used a 2 (spokesperson ethnicity: Chinese versus Dutch) x 2 (incongruent culture cues versus no cues control) between-participants design. 85 participants (second-generation members of the Chinese ethnic minority in the Netherlands, mean age = 20), were given a booklet with three ads. Following a filler ad, the second ad contained either no culture cues, or culture cues that were incongruent with the ethnicity of the spokesperson in the third ad. In the latter case, the booklet either contained an ad featuring Dutch cultural icons, followed by an ad with a Chinese ethnic spokesperson, or an ad featuring Chinese cultural icons, followed by an ad with a Dutch mainstream spokesperson. ANOVA revealed that spokesperson evaluations were less favorable following exposure to incongruent culture cues (versus control). This effect was significant for both ethnic and mainstream spokespersons, but larger for mainstream spokespersons, resulting in a significant two-way interaction.

Study 3 focuses on inter-individual differences in the extent to which bicultural consumers have internalized their ethnic culture, and shows that the negative effect of mainstream culture cues on evaluations of ethnic-targeted ads is alleviated for bicultural consumers who have to a lesser degree internalized their ethnic culture. We used the same procedure as in Study 1 to manipulate presence versus absence of incongruent ethnic culture cues, and used the SL-ASIA scale (Suinn, Ahuna, and Khoo 1992) to measure individual differences in participants' internalization of Chinese culture. Following the culture cues manipulation, participants (106 members of the Chinese ethnic minority, mean age = 31, $SD = 13.86$) were shown a target ad for a mobile phone brand, featuring an Asian woman. A GLM with presence of message-incongruent culture cues as between-participants factor and (mean-centered) internalization of Chinese culture as continuous predictor showed significant main effects of both factors, and a two-way interaction. Slope tests revealed that internalization of ethnic culture had a strong positive effect on spokesperson evaluations when message-incongruent culture cues were absent, but not when these cues were present.

Our three studies show that rather subtle culture cues can induce frame-switching in bicultural consumers, which may have detrimental impact on the evaluation of messages that are incongruent with the activated identity. Study 3 shows that personality factors like the extent to which a cultural context is internalized within the self-concept facilitate negative evaluations for bicultural consumers. Our studies provide an important cautionary tale to those seeking to target bicultural consumers.

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Materialism and Cultural Orientation: The Role of Vertical/Horizontal Individualism within and across Cultures

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Materialism is an enduring belief that it is important to a person's identity to own material possessions. It is frequently conceptualised as having three dimensions: centrality (things are important to me), happiness (things make me happy), and success (things confer success) (Richins and Dawson, 1992). We will focus on the Materialism-Success component. A common expectation is that highly individualistic people are more materialistic due to a substitution of goods for social relationships as self-identifiers (Clarke and Micken, 2002; Wong, 1997;); although the support is mixed (Ger and Belk, 1996, 1999; Eastman et al., 1997; Wong, Rindfleisch and Burroughs 2003). We propose incorporating the vertical-horizontal distinction into the individualist-collectivist framework (e.g., Singelis et al., 1995; Triandis and Gelfand, 1998; Shavitt et al. 2006) will provide further insight into the drivers of materialism. The vertical-horizontal distinction focuses on how much individuals and cultures perceive there to be a strong status hierarchy.

People with a Vertical-Individualism (VI) orientation believe society is strongly hierarchical and that standing is achieved through individual success, which should lead to a positive correlation with Materialism-Success (H1). Conversely, people with a Horizontal-Individualism (HI) orientation have an "aversion to conspicuously successful persons and to braggarts, emphasizing instead the virtues of modesty" (Shavit et al., 2006, p. 326), which should lead to a negative correlation with Materialism-Success (H2). We explore cultural orientation at the country and individual level. We expect that the country level effects of VI will moderate the effect of the individual's VI level on their materialism, such that individual level of VI will be less influential in people from cultures higher on VI. A strong VI culture level is likely led all members toward higher levels of materialism, regardless of personal orientation, due to the influence of social norms on materialism (Ahuvia and Wong, 2002). Whereas people who reside in a low VI culture, but still personally ascribe to a strong VI orientation, should have a closer relationship between their personal VI level and their materialism (H3).

These hypotheses are tested using data collected from online panels of young adult (age 18-29) in seven countries with widely varying cultural orientations. The countries were selected to have at least one country higher on each of the four cultural dimensions (the USA (VI), the UK (VI), Australia (HI), Germany (VI), Brazil (HC), China (VC) and South Korea (VC)). The questionnaire was developed in English and translated into Mandarin, German, Portuguese, and Korean by bilingual translators living in the target countries; then back translated into English by a second translator, following the translation-back-translation method (Brislin, 1970). Materialism was measured by Richins and Dawson's (1992) 18-item scale. Reverse items were reworded, as suggested by Wong et al. (2003). The four cultural orientations were measured by Triandis and Gelfand's (1998) 16-item scale.

The materialism and cultural orientation dimensions were examined following Fornell and Larcker (1981). The removal of one item from Materialism-Success produced a good fit ($\chi^2_5 = 10.11$, $p = 0.07$; CFI = 0.99; RMSEA = 0.06) with high reliability (>0.80) and the AVE supports convergent validity (>0.70). The metric invariance was assessed by examining the χ^2_{diff} between an unconstrained model and one where the measurement weights were constrained equal across countries. The Materialism-Success subscale achieved metric invariance ($\chi^2_{diff3} = 11.33$, $p = 0.01$, with remaining fit indices <0.01).

Minor modifications of the VH/IC scale led to a good fit (VI: $\chi^2_1 = 1.84$, $p = 0.17$; CFI = 0.99; RMSEA = 0.06; HI: $\chi^2_1 = 0.30$, $p = 0.59$; CFI = 1; RMSEA < 0.01; and VC: $\chi^2_1 = 0.02$, $p = 0.90$; CFI = 1; RMSEA < 0.01). The reliabilities were acceptable (ranging

from 0.73 for VI to 0.87 for VC) and the AVEs suggested convergent validity (ranging from 0.49 for VI to 0.68 for VC). The shared variance was less than the lowest AVE score, suggesting discriminant validity. Partial metric invariance was achieved for each subscale (HI: $\chi^2_{diff3} = 5.33$, $p = 0.15$; VI: $\chi^2_{diff3} = 1.93$, $p = 0.59$; VC: $\chi^2_{diff3} = 4.21$, $p = 0.24$; HC: $\chi^2_{diff6} = 6.50$, $p = 0.37$).

The following hierarchical model examines the hypothesised relationships:

Multilevel: $MAT_{ij} = \gamma_{00} + \gamma_{01}MEANVI_j + \gamma_{10}(VI_{ij} - MEANVI_j) + \gamma_{20}(HI_{ij} - MEANHI_j) + \gamma_{11}MEANVI_i(VI_{ij} - MEANVI_j) + \mu_{0j} + \mu_{1j}(VI_{ij} - MEANVI_j) + r_{ij}$, i indicates individuals; j indicates groups; MAT represents a person's Materialism-Success and VI and HI represent a person's vertical and horizontal individualism, respectively. MEANVI represents a country cohort's mean vertical individualism.

H1 is supported; the higher a person's VI, the higher the degree of Materialism-Success ($\gamma_{10} = 0.65$ ($p < 0.001$)). H2 is also supported; the higher a person's HI the lower the degree of Materialism-Success ($\gamma_{20} = -0.05$ ($p < 0.01$)). Also consistent with H1, the degree of country-level VI had a positive effect on Materialism-Success $\gamma_{01} = 0.79$. Finally, H3, the interaction between the individual and country level Materialism-Success, is also supported; the positive effect VI had on Materialism-Success was weaker in cultures with higher vertical-individualism norms ($\gamma_{11} = -0.12$, $p < 0.05$). At the country-level, VI explains 89% of the explainable variation in country-level mean Materialism-Success. At the individual level, VI and HI explain 35% of the within-country cohorts' explainable variation in Materialism-Success.

The current study refines our understanding of the relationship between individualism and materialism, by illustrating the differential influences the vertical (emphasising hierarchy) and horizontal (emphasising equality) dimensions have on Materialism-Success. It shows the importance of distinguishing between aspects of individualism that address differences between countries such as Australia's (HI) and the USA's (VI) culture as these differences have important implications for cross-cultural researchers and for marketers developing strategies for each country.

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Hedonic Shopping Motivations : A Cross-Cultural Comparison

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Since the time Westbrook and Black (1985) highlighted the importance of studying shopping motivations in terms of the psychosocial needs the shopping process satisfies, there have been some advances in the analysis of shopping motivations. However, it can be noted that there is still much need for further research primarily because of two limitations in the current literature: 1) Very little is known about the cross cultural validity of hedonic shopping motivations, and 2) Even less is known about the consequences of hedonic shopping motivations in different cultures. For instance, one research reports that "Indian shoppers seek emotional value more than the functional value of shopping" (Sinha 2003: 13); whereas some of the new retail chains hold that the Indian consumer is more value conscious than the Western one, making ambience of the retail environment relatively less important (Mohan 2002).

This study tries to fill this void in the literature in comparisons of shopping motivations across cultures. Hypotheses about the consequences of the shopping motivations identified by Arnold and Reynolds (2003) are tested in two countries diverse on Hofstede's individualism scale: Germany and India. We expect motivations across the two cultures to be different because collectivists are said to use products that would help identify them with their cultural group; whereas individualists would use products that would help them stand apart as individuals (Fitzmaurice and Comegys 2007). Furthermore, greater freedom to fulfill personal wants and individual goals in individualistic societies result in higher hedonism levels (Basabe, Paez, Valencia, et al 2002; Arrindell, Hatzichristou, Wensink, et al. 1997) and variety seeking; whereas collectivism has been associated with conformity (Hofstede 1980; Erdem, Swait, and Valenzuela 2006).

The Arnold & Reynolds (2003) study identified six hedonic motivations that US shoppers tend to have: *Adventure* shopping for the thrill derived from the shopping trip; *Gratification* shopping was a way to relax and to dispel a negative mood; the feeling of pleasure ensuing from finding the "perfect gift" for friends or family is referred to as the hedonism of *Role* shopping; *Social* shopping is about socializing, spending time with friends and family while engaged in shopping; *Value* shoppers would be those who derive pleasure when they find bargains; those looking for new ideas in fashions and trends in consumer goods would be engaged in *Idea* shopping. It is in the interest of retailers if shoppers lose track of time because the more time consumers spend in the store, the more they are likely to purchase (Nath 2009). Arnold and Reynolds (2003) found a positive correlation between time distortion and shopping motivations, where time distortion was defined as a mental state where shoppers lose track of time. While shopping, in general, might lead shoppers to lose track of time, Arnold and Reynolds (2003) found that the U.S. consumer experiences greater time distortion when shopping for adventure and gratification. In a similar vein, given their value differences and the differences in the way time itself is perceived (Hofstede 2001), we expect that individualists and collectivists would differ in the experience of hedonism in the shopping environment. Specifically, we anticipate that for the two cultures, the experience of time distortion would depend on the shopping motivation. Being self-oriented, individualists are likely to experience time distortion when shopping for the adventure, gratification, or for new ideas. Collectivists, on the other hand, driven by group goals, would likely lose track of time while shopping for others (role shopping), shopping with others (social shopping), and shopping to save money (value shopping). Accordingly, we compared the correlations between hedonic shopping motivations and time distortion for the two cultures formalized in the following hypotheses.

H1: The relationship between time distortion and adventure, gratification, idea shopping motivations will be stronger for individualists (Germany) than for collectivists (India).

H2: The relationship between time distortion and role, social, value shopping motivations will be stronger for collectivists (India) than for individualists (India).

The samples were drawn from Northwestern Germany (n=992) and Western India (n=971). Following Steenkamp and Baumgartner (1998) and Byrne et al. (1989) we first tested for measurement invariance of the Arnold & Reynolds (2003) scale across the two countries, Germany and India. Specifically, appropriate procedures were followed to establish subject pool and construct equivalence, configural invariance, and partial metric invariance. The fit statistics for both the models, configural and metric invariance, were above acceptable thresholds, GFIs exceeding 0.9, and partial metric invariance tests indicated 7 out of 18 items to be invariant across the two countries. As Steenkamp and Baumgartner (1998) suggest that partial rather than total metric invariance may be more likely, we accepted the partial metric invariance and proceeded to test hypotheses about the outcomes of these motivations in the two countries.

First, we compared the bivariate correlations between the six motivations and time distortion. As anticipated, correlations between the individualistic motivations of adventure, idea, and gratification shopping and time distortion were much stronger for Germany than for India. The correlations between the collectivistic motivations of role and value shopping and time distortion were not significantly different for Germany and India. The only exception was the correlation between social shopping and time distortion, which, contrary to expectation, was stronger for Germany than for India. However, we also used Multi-dimensional scaling (MDS), and the MDS plots confirmed that for Germany, time distortion was closer to idea, adventure, gratification, and social shopping; whereas for India, time distortion was closer to role and value shopping.

For retailers, the findings suggest which shopping motivations the two cultures, a developed market and an important emerging market, diverge and converge on. Shoppers in both samples in our study appear to lose track of time when shopping for family and friends (role shopping) and interestingly, when looking for bargains (value shopping). While the finding that it takes bargains for shoppers to lose track of time is in itself not a welcome thought for retailers, the goal of getting shoppers to linger is achieved. On the other hand, the distance of the Indian consumer from gratification and social shopping points to an area for retailers to focus on in the long term. If getting shoppers to linger in the store would serve retailers well, then a focus on promoting visits to malls to “hang around” with family and friends might be a useful strategy. Entry into an inchoate market, such as India, may be an opportunity to shape consumer motivations there, particularly about gratification and social shopping.

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Influence of Self-Construal on the Use of Mutable and Immutable Features

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Feature mutability is defined as the “centrality of a feature in a network of pairwise dependency relations” among features (Sloman, Love, and Ahn 1998). Extant research suggests that people’s categorization is driven more by features that are relatively less mutable because such features are central to the product concept (Keil 1989; Murphy and Medin 1985). We posit that perception of a feature’s centrality is not fixed, and argue that consumers’ self-construal may influence their perceptions of pairwise dependency relations, resulting in perceived feature centrality to vary. Consequently, their product categorization should vary in accord.

Individuals with independent or interdependent self-construal tend to process information differently (Choi and Nisbett 2000; Ji, Peng, and Nisbett 2000; Markus and Kitayama 1991; Nisbett et al. 2001). People with independent self-construal, being less attentive to relationships, pursue uniqueness. In contrast, interdependents, being sensitive to even subtle relationships, are motivated to fit in social groups (Ji et al. 2000; Monga and John 2007). Since immutable features by definition are better connected with other features as compared to mutable features, both independents and interdependents should successfully perceive the pairwise dependency relationships between immutable and other features. Mutable features, on the other hand, lack obvious relationships with other features. Independents only perceive the pairwise dependency relationships that are more self-evident (as against subtle), while interdependents perceive subtle relationships among features in general. Consequently, the perceived difference between mutable and immutable features in terms of their pairwise dependency relationships with other features should be less among interdependents as

compared to independents. Moreover, Sloman et al.'s (1998) iterative linear equation model suggests that dependency relations influence feature centrality. Therefore, immutable and mutable features should be regarded as nearly equally central by interdependent individuals, while for independents, immutable features should be regarded as more central than mutable features.

We examined the differences in product evaluations and categorization for independents and interdependents based on feature mutability. As the foregoing logic suggests, we predicted that for interdependents, a product with a superior immutable feature and one with a superior mutable feature should elicit equal evaluations. For independents, a product with an immutable feature should be evaluated more positively. Further, since people rely on central features to categorize products (Keil 1989; Murphy and Medin 1985), we hypothesized that independents should rely more on immutable features than mutable features in product categorization, whereas interdependents are likely to be agnostic in their reliance on mutable/immutable features in their categorizations. These hypotheses were tested in three studies.

In study 1, we manipulated respondents' interdependent/independent self-construal by tasking them with processing either group related words (e.g., "family," "friends," and "community") or words about the individual self (e.g., "independent," "individuality," and "self-sufficiency"). We manipulated feature superiority by exposing participants to comparative product descriptions of two computers. One was described as possessing an Intel Pentium 930 microprocessor at 3.0 GHz (a superior immutable feature) and a 17-inch conventional CRT monitor (an average mutable feature) while the other was described as having an Intel Celeron 325 microprocessor at 2.53 GHz (an average immutable feature) and a 19-inch LCD flat panel monitor (a superior mutable feature; feature mutability was checked and ascertained in separate pretests). ANOVA revealed that independents rated the product with a superior immutable feature higher than the product with a superior mutable feature ($M_{Immutable} = 4.88$ vs. $M_{Mutable} = 3.55$; $F(1, 112) = 22.26$, $p < .001$), while interdependents evaluated the two products about equally ($M_{Immutable} = 4.27$ vs. $M_{Mutable} = 3.55$; $F(1, 112) = .41$, $p > .5$). Identical results were obtained for preference measures.

In study 2, we manipulated self-construal between subjects by having participants process and respond to ten sentences relating to either a person's group identity (e.g., "I am a college student", "I am American") or her/his idiosyncratic characteristics (e.g., "I am tall," "I am smart"). We manipulated feature mutability within subjects. Participants were shown descriptions of eight toothpaste products, varying on three features - benefit, flavor, and size. Benefit was assessed to be the immutable feature and both, flavor and size, mutable features. Participants were instructed to sort the eight products into no more than six groups. Each participant's sorting response was coded along two dimensions - the number of groups based on immutable features and the number of groups based on mutable features. If a group was comprised of toothpastes with the same benefit (e.g., baking soda) irrespective of other features, it was coded as an immutable feature based group; if a group consisted of toothpastes with the same size or flavor, irrespective of other features, it was coded as a mutable feature based group; if a subject classified all large size and baking soda toothpastes in the same group, we classified that group once as an immutable feature based group (to reflect the baking soda benefit) and once as a mutable feature based group (to reflect the size). ANOVA confirmed that independents were more likely to group the products based on immutable features than mutable features ($M_{Immutable} = .96$ vs. $M_{Mutable} = .36$; $F(1, 46) = 27$, $p < .001$), while interdependents used immutable and mutable features equally in their sorting ($M_{Immutable} = .73$ vs. $M_{Mutable} = .76$; $F(1, 46) = .07$, $p > .5$).

Study 3 aimed to demonstrate a reversal of the effects in studies 1 and 2 in an automobile sorting task while varying feature saliency. We manipulated self-construal between subjects as in study 2. Information of product features was varied within subjects as follows. Each participant was presented descriptions of six automobile products, Honda Accord, Honda Civic, Toyota Camry, Toyota Corolla, Nissan Maxima, and Nissan Altima, varying on two dominant dimensions - transportability (immutable feature; the generic and intended function of an automobile which is to transport fewer vs. more passengers and belongings) and company name (mutable

feature). By explicitly emphasizing the mutable feature but not the immutable feature, we expected participants to perceive more associations about the mutable features than the immutable feature. Thus, the lower saliency of the immutable feature and the consequent perceived lack of relations associated with it made it appear to be less central than the mutable feature. We predicted that as compared to interdependents, independents will find mutable feature to be more central and more consequential in their product groupings than immutable feature. As expected, ANOVA showed that independents were more likely to rely on the mutable than the immutable feature to group the products ($M_{Immutable} = .13$ vs. $M_{Mutable} = .66$; $F(1, 68) = 16.95$, $p < .001$). Interdependents used the immutable and the mutable feature equally ($M_{Immutable} = .31$ vs. $M_{Mutable} = .46$; $F(1, 68) = 1.36$, $p = .25$).

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6.5 Symposium: From Attention to Brain Processes: The Dynamics of Self-Control from an Interdisciplinary Perspective

Room: Spruce Room

Chair: Hilke Plassmann, INSEAD, France

Discussion Leader: Klaus Wertenbroch, Wharton, USA and INSEAD, France

Neurological Correlates of Diminished Self-Control

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Self-control is necessary for a variety of tasks. Self-control failures can lead to trivial personal consequences such as arriving late to an appointment or to serious consequences such as alcoholism. Self-control failures have also been associated with other important societal problems such as obesity, increased transmission of STDs, diminished school performance, and diminished savings rates. It is therefore important to understand why consumers sometimes exhibit diminished self-control.

Our research draws from the literature on the limited resource model of self-control, which states that a finite supply of energy governs controlled responding (Muraven and Baumeister 2000). Research has consistently demonstrated that engaging in self-control in an initial task diminishes individuals' ability to subsequently exert self-control, which is in line with tenets from the limited resource model. For instance, after exerting self-control on one task, consumers subsequently a) spend money (Vohs and Faber 2007), b) overeat (Vohs and Heatherton 2000), and c) drink more beer (Muraven, Collins & Nienhaus 1999), relative to participants who had not earlier exerted self-control. Diverse acts of self-control draw on a common resource, but little is known about the specific cognitive mechanisms associated with the diminution of self-control. This presentation will report findings from a functional magnetic resonance imaging (fMRI) study aimed at better understanding self-regulatory resource depletion effects.

Cognitive neuroscientific research has found that self-control involves two dissociable processes. One process monitors the need for self-control. This process measures whether there is a conflict between two different response tendencies. The other process implements self-control. This process overcomes prepotent responses with a task relevant response. Functional magnetic resonance imaging studies (fMRI) have demonstrated that implementation of control is associated with increased activity in the dorsolateral

prefrontal cortex (DLPFC), while response conflict monitoring is associated with enhanced activation in the anterior cingulate cortex (ACC) (Kerns et al. 2004).

Hence, there are three competing predictions about the neural mechanisms associated with diminished self-control from a limited resource perspective. Subjects who are depleted of their self-control resources might have reduced activity in their entire executive control system. Alternatively, subjects could have reduced activity that is limited to areas associated with the implementation of control. Finally, subjects could have reduced activity that is limited to areas associated with conflict monitoring.

Our fMRI study tested sixteen subjects who participated on two separate occasions. In the first session, subjects were randomly assigned to an initial task that either demanded much self-control or was not demanding (i.e., easy). They then performed the alternate condition in the second session. The easy manipulation had the following instructions, "Words will periodically be displayed on the screen. These words are unrelated to your task. You can ignore them if you want. Please keep your eyes on the + sign." The demanding manipulation had the following instructions, "Words will periodically be displayed on the screen. These words are unrelated to your task. It is very important you ignore these words. Please keep your eyes on the + sign." After performing this task, subjects were asked to choose options they preferred from a list of alternatives.

A comparison of brain activation during the regulatory demanding versus easy task revealed several significant differences. The regulatory resource demanding task had statistically increased activity ($p < 0.05$) in areas of the brain previously implicated in self-control. These areas included the ACC (BAs 24/32) and DLPFC (BA 9). These results are consistent with the conclusion that our regulatory resource demanding task indeed recruited more self-control resources. Next, we compared subjects' response times after they performed the regulatory resource demanding versus easy task. Subjects were more impulsive after performing the regulatory resource demanding task. Choices after the regulatory resource demanding task were faster than choices after the easy task ($p < 0.05$). Finally, we measured brain activity as subjects chose preferred options. We compared brain activity during choices after performing the regulatory demanding task versus after performing the easy task. Brain activity differences were limited to the right middle frontal gyrus (part of the DLPFC), an area associated with response inhibition. This area displayed less activation during the decision task ($p < 0.05$) after the regulatory resource demanding task relative to the easy task.

These results are consistent with the theory that self-control failures from regulatory resource depletion result from a diminished capacity to implement control and not from a diminished capacity to monitor response conflict.

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Sticky Desires or Tricky Self-Control: Dynamic Processes in Attention Bias Towards Temptation

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A rich body of literature has looked at impulsive or indulgent behaviors through the lens of self-control, suggesting that such behaviors arise due to weakness of will or failures in self-control (Muraven et al 1998). We propose an alternative view, suggesting a larger role for desires than previously thought. Specifically, we suggest that indulge tendency arises due to a strong attentional bias towards temptations that manifests in greater and more recurrent desires, particularly among impulsive individuals.

Previous literature has identified two types of attentional bias: *orientation bias* that results in spontaneous attraction towards stimulus and *engagement bias* that results in continued engagement with the stimulus. In three studies, we show that engagement bias better predicts people's yield to temptation and stems from people's tendency to approach temptations rather than a diminution in their ability to avoid. Furthermore, training impulsive individual to focus on stimulus inconsistent with their chronic goal can worsen the situation as their desire for temptation surges upon subsequent encounter.

Experiment 1 seeks to determine the nature of attentional biases towards temptations among impulsive vs. prudent people and whether indulgent behavior results from attentional bias. Participants first completed a scrambled sentence task that was either neutral or designed to activate the need for something sweet. They then engaged in a visual probe task (Mogg et al. 1997), in which participants were required to respond as quickly as possible to a small dot probe which was presented immediately after the display of a pair of pictures consisting one of dessert and one of healthy option. Picture pairs were presented for either 100 ms or 1250 ms on the screen after a fixation cross that appeared for 500, 750 or 1250 ms at random. These were followed by a dot probe that appeared in one of the two positions and remained on screen till the respondent's response. Attentional bias scores were computed for each participant where positive values indicate greater vigilance for temptations. Positive values at the 100 ms exposure level indicate automatic visual orientation towards temptations, while those at the 1250 ms level indicate continued attention towards desserts even when the probe appeared in the position of the fruit. After the dot probe task, participants were given the opportunity to take cookies from a filled tray as an unrelated study. Finally, impulsivity was measured via the Consumer Impulsiveness Scale (Puri 1996) two weeks after the study. Results showed that impulsive individuals exhibited an orientation bias towards temptations. In addition, impulsive individuals who were primed with hedonic goal showed greater engagement with pictures of temptations. More importantly, those who exhibited the engagement bias took more cookies than those who exhibited orientation bias or no attentional bias, implying that engagement bias towards temptations leads to subsequent indulgent behaviors.

Experiment 2 examines the psychological processes underlying such attentional biases. In particular, we were interested in the dynamics of desire and avoidance towards the temptation in an attempt to determine whether indulgence is caused by strengthened desire or weakened avoidance. We changed the design of the dot probe task such that the dot probe would appear more frequently (90% of the trials) either at the location of the dessert picture or the fruit picture, thus manipulating attention in one direction. Subsequently, we measured desire-avoidance reactions towards a tempting chocolate snack on a 2-D grid by moving a mouse cursor continuously for 60 seconds. Participants indicated whether they felt little or a lot of desire and avoidance towards the snack right at the moment on two orthogonal dimensions. Using a new technique from dynamical psychology called Recurrence Analysis, we examined the trajectories followed by the time series for desires and avoidance, specifically looking for the extent to which the trajectories visited the same region in state space over time. Results confirmed that impulsive individuals who were manipulated to attend to desserts showed higher recurrence of desires and remained longer in a state of desire but not non-impulsive individuals, suggesting only impulsive individuals kept revisiting the same hedonic goal and were trapped in that goal state for a longer period of time. This phenomenon of trapped states is described in dynamical system theory as a "fixed point attractor" wherein individuals keep returning to a given state or goal despite occasional fluctuation (Carver 2005, Vallacher and Nowak 1999).

In experiment 3, we further explore how training attention engagement towards either towards temptation or healthy options can impact subsequent behavior when reward-seeking systems are activated at different time points. We followed the same procedure as in experiment 2 except that participants were additionally asked to sample a small piece of chocolate before or after the dot probe task. Sampling even a small bite of chocolate can cause activation of the reward-seeking system (Wadhwa et al. 2008). Results showed that impulsive individuals experienced higher recurrence of desire towards temptation when manipulated to attend to desserts if sampling before. More interestingly, impulsives experienced even higher recurrence of desire when they attended to healthy options first and

then sampled a temptation. This data pattern suggests that reactance against goals inconsistent with their chronic goals may arise as a consequence of forced attention engagement on healthy options among impulsive individuals, hence training to focus on virtue can be a bad strategy to reinforce healthy behavior.

In summary, our research demonstrates that indulgent behavior exhibited by impulsive individuals is an immediate consequence of an engagement bias towards temptation that results in greater desires rather than weaker self-control. However, strengthened desire is not only limited to an elevated level of desire, but also extends to a more frequent recurrence of desire state and a longer trap time in that state. Forcing attention away from the temptation may backfire, resulting in higher recurrence of desire and consequently greater indulgence in impulsive individuals.

Neural Processes Underlying Regulatory Dietary Self-Control

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Elucidating the nature of self-control has been a long-term goal of consumer psychologists. Behavioral studies have provided valuable insights, such as the exhaustible nature of self-control in the short-term (Shiv and Fedorikhin, 1999, Vohs et al., 2008), the fact that it can be enhanced using cognitive strategies (Wertenbroch 1998), and the fact that it correlates with measures of intelligence (Tangay et al., 2004). However, significant controversy remains about the precise (neuro-)psychological mechanisms underlying self-control failures and successes. Part of the difficulty is that it is hard to distinguish between the competing theories that have been proposed using behavioral data alone since they often make similar predictions.

Most of the previous studies in neuropsychology that have investigated self-control (McClure et al., 2004, Kable and Glimcher, 2007, Hare et al., 2009) have the fundamental limitation that it has involved tasks in which subjects engage in spontaneous forms of self-control. In these cases, it is difficult to determine if participants who make virtuous choices are deliberately engaged in self-regulation at the time of choice, or if in contrast they are just expressing the preferences that come natural to them. In contrast, regulatory self-control (RSC) entails a deliberative effort through self-regulation to counteract a strong desire, and is likely to reflect better the problem of most dieters, who constantly struggle to make decisions that go against their cravings.

In this study we used human fMRI to provide a comprehensive characterization of the changes in the decision-making circuitry that take place during RSC. We investigated these questions using RSC task adapted from an fMRI food choice paradigm that we previously have developed (Plassmann et al., 2007). On each trial, hungry subjects saw a picture of an appetitive, high calorie food, such as candies, and had to decide how much to bid for the right to eat it at the end of the experiment using an auction mechanism from behavioral economics. At the end of the experiment one of these trials was randomly selected and implemented. Critically, subjects were asked to make decisions in three different conditions. In the first condition (Natural), subjects were asked to respond naturally to the food stimulus prior to choosing their bid. In the second condition (Distance), subjects were asked to distance themselves from any cravings that they might experience during the process of evaluating how much they wanted to bid for the item. In the third condition (Indulge) subjects were asked to focus and indulge in any cravings that they might have. Prior to the bidding and self-control task, participants gave a liking rating for every food.

Certain aspects of the task that play a critical role in the analyses. First, the comparison of the Natural and Distance trials allow us to compare the neural processes at work in the absence and presence of RSC. Second, the bids provide a behavioral measure of the value assigned to the stimuli during the various regulation conditions. Third, the pre-scanning liking ratings provide a measure of the value that the subjects assign to the items in the absence of any RSC, enabling us to determine whether and how the computations used to construct bids differed under conditions of RSC. Given the complexity of the analyses involved, we focus in this presentation on the analysis of Natural and Distance trials.

On a behavioral level we analyzed the change in the relationship between the pre-scanning ratings and the bids. There was a significant decrease in the slope of the resulting bidding curve between Distance ($M = .27$, $s.e. = .03$, $\text{paired-}t_{25} = 4.62$, $p < .001$) and Natural trials ($M = .34$, $s.e. = .02$). This effect remained significant even when we excluded trials with zero bids ($p < .001$), which suggests that this difference was not due to an artificial floor effect.

On a neural level, we first investigated the neural correlates of value representation during “natural” trials and found that activity in two brain areas known to encode decision values (vmPFC, dlPFC) were significantly correlated with bid and also with pre-scanning liking ratings in our study. Second, we found brain areas to correlate with regulatory self-control that also have been found in previous studies to reflect cognitive regulation (ventrolateral prefrontal cortex (vlPFC)). These two findings serve as a good manipulation check of our study.

Next, we tested for changes in the correlation between the two brain systems that encode decision values (vmPFC, dlPFC) and the bids between the Distance and the Natural trials. This analysis is important because it provides a direct test of the hypothesis that RSC entails a transfer of behavioral control from the vmPFC to the dlPFC. We found significant effects of RSC in these two brain areas in form of changes in correlation between the early and late phases of the evaluation period: during the late part of Distance trials activity in the vmPFC was no longer correlated with the bids, whereas the activity in dlPFC was significantly correlated ($p < .005$ corr). In fact, the correlation between vmPFC and the bids in Distance compared to Natural trials decreased during the evaluation period ($p < .005$ corr), whereas the correlation for dlPFC increased ($p < .005$ corr). This finding provides evidence for the hypothesis that during RSC there is a shift in control from the vmPFC to the dlPFC value systems, suggesting that the dlPFC may be less responsive to the ‘tempting’ components of the food stimuli.

Last, we investigated functional connectivity between brain systems encoding value and those encoding self-regulation. We found that the transfer from activity changes in brain areas encoding value during regulatory success is mediated by activity changes in the same brain area we found to correlate with self-regulation. This analysis shows that the vlPFC exhibit functional connectivity with vmPFC and dlPFC in a way that is consistent with their role as carriers of RSC, and that might mediate the changes in the activity in these areas that are necessary to regulate behavior.

These findings advance our understanding of disorders of decision-making, such as obesity and addiction. A growing body of evidence suggests that these disorders may stem in part from hypersensitivity to reward, and in part from an inability to update the rewards assigned to problem stimuli through RSC, our results additionally show that success of such efforts is likely to involve a transfer of behavioral control from different decision valuation systems and their mediation through self-regulation.

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6.6 Individual Papers: Ethical and Cultural Issues in Branding

Room: Maple Room A

Chair: Christine Bennett, University of St. Thomas

Does Self-Confidence Make You More Deceptive In Your Brand Relationships? The Role of Self-Confidence in Abstract versus Concrete Brand Relationships

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Consumers form relationships with brands in much the same way as they form relationships with other individuals and the nature of the brand relationships varies across consumers (Fournier 1998; Muniz and O'Guinn 2001). In defining the functions of brand relationships, one must not forget that relationships are multiplex phenomena, which take many forms and range across several dimensions (Fournier 2009). One interesting area in consumer-brand-relationship is the investigation of the underlying processes of counterfeit consumption. This research investigates the role of consumer-brand-relationships in attenuating counterfeit consumption.

Counterfeits are illegally made products that resemble the genuine goods. In today's economy, the importance of studying counterfeit consumption has increased because counterfeiting causes economic harm and poses danger to public health (International Anti-Counterfeiting Coalition 2008). While companies fight with counterfeiting by trying to reduce the supply of counterfeit products, researchers are interested in understanding the demand for counterfeit products.

There are numerous factors affecting non-deceptive counterfeit consumption. Demographic and psychographic variables as well as attitudes towards counterfeiting influence intentions to purchase counterfeit products (Eisend and Schuhert-Güler 2006). Furthermore, social and cultural contexts as well as variables such as materialistic values (Chuchinprakarn 2003), and moral intentions (Tan 2002) influence intentions to purchase counterfeits. Moreover, recent research suggests that consumers are more likely to purchase counterfeits when their attitude toward luxury brands serves self-presentation purposes (Wilcox, Kim, and Sen 2009).

This research shows that consumers may form abstract and concrete brand-relationships, which differentially influence intentions to purchase counterfeits. We define abstract brand relationships as relationships that are based on higher-order representations of what the brand means to the consumers (e.g., status, image). These abstract relationships may serve social-adjustive functions (Wilcox et al. 2009) and/or value-expressive function. Concrete brand relationships are defined as brand relationships that are based on more concrete features of the brand (e.g., comfort, style). Although consumers are likely to form these relationships by trying or owning the brand, these brand relationships may also be formed when consumers do not have any prior experience with the brand (when consumers aspire to own luxury brands).

We propose that consumers are more likely to purchase counterfeits when they focus on concrete (vs. abstract) brand-relationships because counterfeits resemble genuine brands and offer similar features at a lower price (Gentry, Putrevu, and Shultz II 2006). However, purchasing counterfeits is a decision that includes uncertainty about the concrete outcomes (e.g., uncertainty about durability) and uncertainty about the abstract outcomes (e.g., uncertainty about achieving the ideal status). Previous research suggests that self-confidence is important in decisions involving uncertainty (Taylor 1974; Krueger and Dickson 1994). Self-confidence is defined as "a subjective sense of conviction or validity about one's attitude or opinion" (Gross, Holtz, and Miller 1995). The degree of

confidence (versus doubt) individuals place in their thoughts is important in judgment and behavior. Self-beliefs that are held with greater confidence are more predictive of behavior (Brinol, DeMarree, and Petty 2010).

We hypothesize that self-confidence (high vs. low) moderates the effect of abstract (vs. concrete) brand-relationships on intentions to purchase counterfeits. Specifically, high (vs. low) self-confidence individuals who have more confidence about their attitudes or opinions should express higher intentions to purchase counterfeits when they focus on concrete brand-relationships. Uncertainty about the concrete outcomes is expected to mediate this effect. In contrast, when individuals focus on abstract brand relationships, low (vs. high) self-confidence individuals should express higher intentions to purchase counterfeits. Uncertainty about the abstract outcomes is expected to mediate this effect.

These predictions are tested in a series of two experimental studies.

In study 1, we test the prediction that self-confidence moderates the effect of consumer-brand-relationships (abstract vs. concrete) on intentions to purchase counterfeits. One hundred adults participated in a computer based national e-panel.

In this study, consistent with previous research, we adopted self-confidence scale from a general consumer self-confidence scale developed by Bearden, Hardesty, and Rose (2001). Sample items include “I can tell which brands meet my expectations,” and “I am confident in my ability to recognize a brand worth considering.” We manipulated consumer-brand-relationships by asking participants to think about and define what the brand means for them (abstract condition) versus what the concrete features of the brand are (concrete condition).

Participants indicated the extent to which they are likely to purchase a counterfeit version of their favorite luxury brand on a 5 point scale.

Findings support the hypotheses that self-confidence moderates the effect of consumer-brand-relationships (abstract vs. concrete) on intentions to purchase counterfeits. Specifically, high (vs. low) self-confidence individuals are more likely to purchase counterfeits when they have concrete (vs. abstract) brand-relationships. On the other hand, low (vs. high) self-confidence individuals are more likely to purchase counterfeits when they have abstract (vs. concrete) brand-relationships.

In study 2, we test the prediction that self-confidence moderates the effect of consumer-brand-relationships (abstract vs. concrete) on intentions to purchase counterfeits in a 2 (self-confidence: high, low) x 2 (consumer-brand-relationships: abstract, concrete) between-subjects design. One hundred adults participated in a computer-based e-panel.

We use the same manipulation for consumer-brand-relationships (abstract, concrete) as in study 1. Moreover, we use self-confidence manipulation consistent with the previous research (Tormala et al. 2007).

Participants indicated the extent to which they are likely to purchase counterfeit of their favorite luxury brand on a 5-point scale. Moreover, we measured uncertainty about the concrete and abstract outcomes.

As in study 1, findings support the hypotheses that SC moderates the effect of consumer-brand-relationships (abstract vs. concrete) on intentions to purchase counterfeits. Specifically, high (vs. low) self-confidence individuals are more likely to purchase counterfeits when they have concrete (vs. abstract) brand-relationships. On the other hand, low (vs. high) self-confidence individuals are more

likely to purchase counterfeits when they have abstract (vs. concrete) brand-relationships. Moreover, uncertainty about the concrete and abstract outcomes mediates these effects.

This research contributes to the extant literature in several ways. Theoretically, we show that consumers may have different brand relationships (e.g., abstract versus concrete), which differentially influence the extent to which consumers purchase counterfeits. Prior research characterizes brand relationships in different ways (e.g., love, satisfaction, commitment; Fournier 1998; Gregoire and Fisher 2008). To the best of our knowledge, this is the first paper that characterizes consumer-brand-relationships in terms of higher-order (abstract) versus detailed feature-based (concrete) representations. Moreover, by showing the relation between self-confidence and consumer-brand-relationships, we contribute to the literature in consumer-brand-relationships. Furthermore, we demonstrate that uncertainty about the concrete and abstract outcomes are important in decisions to purchase counterfeits. We hope that the current research will prompt future inquiry into this area.

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The Taste of Fairness – How Ethical Labeling of Consumer Goods Shapes People's Taste Experience

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When rating the quality of foods and drinks, people often base their judgments on external cues such as price, brand, calorie load, fat-content or organic production; instead of intrinsic cues such as the taste. The agreed notion in the literature is that this so-called labeling effect has its foundation in the consumers' tendency to hold congruent a-priori beliefs, pre-trial quality expectancies, as well as matching judgments of products.

The present research addresses the labeling effect in the context of ethical labeling. We argue that the label *Fair Trade* which signals a "fair" price paid to producers in third world countries rather than the "world-market price" may also contribute to a more positive evaluation of product quality. However, given that there is no actual reason to believe that fair trade products are of a higher quality, we assume that the common explanation for the occurrence of labeling effects (higher pre-trial quality expectancies lead to a more positive evaluation of product quality) does not entirely apply within the context of ethical labeling. Instead, we offer an alternative explanation. We propose that consumers also apply a *what-is-fair-is-good* heuristic to judge products' taste, which contributes to more positive ratings of ethical labeled products despite the belief that fair trade products are not actually of a higher quality. In line with our reasoning, previous research suggests that, for example, concerns for fairness were found to be the key driver regarding the judgment of socio-economic policy measures. Furthermore, in the realms of marketing and pricing, fairness was found to exhibit a key influence on product perception as unfair prices decrease subjective product ratings.

Generally, we hypothesize that ethical labeling influences taste ratings positively. However, partly incongruent to previous research on the labeling effect, we assume that this effect can occur despite diverging a-priori attitudes about Fair Trade being better as well as independent of pre-trial expectancies.

Participants. In total, 220 students from University of Cologne, Germany, were invited to the laboratory to participate in a study regarding the tasting of coffee. The participants were randomly assigned to four equally large groups.

Design and procedure. We applied a 2 (*content* fair vs. conventional) x 2 (*label* fair vs. conventional) between subjects - design to test our hypotheses.

Before tasting the coffee, participants were asked to read instructions and to fill out a questionnaire. In the instructions, participants received some general information on the products they were about to taste. Participants ostensibly consuming Fair Trade further learned what the label means by a brief explication about how Fair Trade works. Before actually preparing and tasting the coffee, participants were asked to answer various filler questions regarding consumption habits and attitudes to other things such as organic foods or consumption in general. Participants could freshly brew the coffee, using a Philips Senseo coffee maker. However, before actually tasting the chocolate, participants were asked to rate their pre-trial expectancies on a 5-point scale (1 = very bad; 5 = very good). After the tasting, participants were asked to rate the taste of the coffee on a scale from 0 to 100.

In line with our general hypothesis that ethical labeling influences taste ratings positively, a significant main effect of the label was observed. Hence, coffee labeled as fair was rated with $M=73.35$ ($SD=16.98$), whereas conventionally labeled coffee was rated with $M=63.43$ ($SD=20.04$), $F(1, 216)=15.32$, $p<.001$, $\eta^2 =.07$. Finally, analyzing the labeling effect more deeply for those participants (79%) who indicated an a-priori attitude that Fair Trade and conventional goods are equivalent proved the robustness of the influence of the Fair Trade Label. While coffee labeled as fair was rated at $M=71.51$ ($SD=17.51$), coffee not labeled as fair was rated $M=65.12$ ($SD=19.50$), $F(1, 166)=5.49$, $p<.05$, $\eta^2 =.03$. Hence, participants rated the Fair Trade Label higher despite explicitly stating that Fair Trade and conventional goods are equivalent. To analyze the effect of pre-trial expectancies, we tested for mediation using the causal steps approach suggested by Baron and Kenny (1986). The results of Sobel tests suggest that partial mediation occurred ($Z_{coffee}=2.67$, $p<.01$).

Participants. In total, 241 students from University of Cologne, Germany, were invited to the laboratory to participate in a study regarding the tasting of chocolate.

Design and procedure. We applied a 2 (*content* fair vs. conventional) x 2 (*label* fair vs. conventional) between subjects - design to test our hypotheses.

The procedure was largely identical to the procedure from Experiment 1. In order to gain a higher credibility of the manipulation, participants could consume the chocolate in little squares directly from the packaging

In line with our general hypothesis that ethical labeling influences taste ratings positively, again a significant main effect of the label was observed. While the chocolate labeled as fair was rated at $M=76.00$ ($SD=16.64$), chocolate with the conventional label was only rated at $M=65.94$ ($SD=21.21$), $F(1, 237)=19.83$, $p<.001$, $\eta^2 = .08$.

Analyzing the effect of pre-trial expectancies, the results of Sobel tests suggest that no mediation occurred (Sobel $Z=1.24$, $p=.24$). Contrary to findings from previous research and incongruent to experiment 1, this result indicates that different pre-trial quality expectancies, evoked by the labels, cannot account entirely for the effect

Finally, analyzing the labeling effect more deeply for those participants (77%) who indicated an a-priori attitude that Fair Trade and conventional goods are equivalent again proved the robustness of the influence of the Fair Trade Label. While chocolate labeled as fair was rated at $M=76.77$ ($SD=14.81$) the chocolate without the label was rated at $M=67.64$ ($SD=20.43$), $F(1, 180)=14.30$, $p<.001$, $\eta^2=.07$.

The current research showed the existence of labeling effects of ethical labels in consumer goods. Partly inconsistent to findings from previous research it was found that these effects could not entirely be explained by different pre-trial expectancies evoked by the labels. Furthermore, the labeling effects were also observed for participants who indicated an a-priori attitude that Fair Trade and conventional goods are equivalent. Thus, the effects demand an alternative explanation, for which we introduce the argument that consumers feel fair products to be good, i. e., a *what-is-fair-is-good* heuristic.

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How Far Can a Culturally Symbolic Brand Stretch? Cultural Schemas and Evaluation of Brand Extensions

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Many well-known brands become symbols or icons of the cultures or countries they are associated with. Examples of these brands include Nike (American) or Sony (Japanese). Branding professionals invest resources in building cultural icons with the expectation of being rewarded with stronger market-leadership positions and higher levels of brand equity (Holt, 2003). An under-researched question of great interest for both practitioners and researchers is how a brand's status as a cultural symbol influences its ability to stretch and leverage its brand equity. The scant academic research on this topic suggests that for well-known brands, country or culture associations play only a nominal role on attitudes and choices (e.g., Balabanis & Diamantopoulos, 2008); however, marketplace expectancies run counter to it. This is an important issue, since brand extensions are an important avenue for growth in today's highly competitive marketplace, especially for well-known brands with established leadership positions and iconic status; however, extension failure rates are known to be as high as 84% (Tait, 2001).

Interestingly, the majority of the prior branding literature has focused primarily on the role of perceived fit in determining brand extension evaluation and success (e.g., Broniarczyk & Alba, 1994). As such, our knowledge of other drivers of brand extension evaluations, such as a brand's cultural symbolism, is relatively limited. The theoretical framework proposed in this manuscript focuses on a more automatic type of process based on "cultural congruity" which operates independently of perceived fit as well as country-of-origin and brand reputation, and can presumably override the influence of these factors.

Six experiments demonstrate a cultural congruency effect: culturally congruent extensions (i.e., when both the brand and the extension category cue the same cultural schema) were evaluated more favorably than neutral or culturally incongruent ones (i.e., cue two different cultural schemas). The effects emerged with both moderate and far brand stretches, narrow and broad brands, and regardless of whether the country or culture associated with the brand had a favorable or unfavorable image. The automatic mechanism driving the effects was driven by the processing (dis)fluency generated by the simultaneous activation of the same (different) cultural schemas by the brand and the extension.

Experiment 1 examines the basic cultural (in)congruity effect using a research paradigm from the conceptual fluency literature (e.g., Lee & Labroo, 2004). Participants rated target words in terms of their pleasantness after seeing a flashed word on the screen. The

flashed word was used to either activate (prime) a cultural schema (culturally charged, e.g., “Sony”) or was a culturally neutral replicate in the baseline condition (e.g., “toaster oven”). The target word, which was always an everyday word, was also either culturally charged (e.g., “samurai”) or culturally neutral (not associated with any cultural schema, e.g., “water”). Results confirmed that when a given cultural schema was activated by a culturally-symbolic brand or product, it led to an increased (decreased) conceptual fluency in processing a target word strongly associated with the same (a different) cultural schema, as indicated by the more (less) favorable evaluation of the same highly familiar and commonly used target word.

Experiment 2 examines the proposed cultural congruity phenomenon in the context of extensions for a well known brand (Sony), which vary in their cultural congruity but are similar in perceived fit. Participants evaluated one of three brand extensions (Electric Car – culturally congruent; Cappuccino-Macchiato maker – culturally incongruent; and Toaster Oven – culturally neutral). Holding level of fit constant, and controlling for prior brand and product attitudes, the culturally congruent extension was evaluated more positively than the neutral one, but the culturally incongruent extension received a less favorable evaluation than the neutral toaster oven. The extremely low number of cultural thoughts listed by participants suggested that participants did not deliberate on cultural (in)congruity.

Experiment 3 examined whether the effect emerges for far brand stretches, and how it stacks up when compared to a “true” neutral (i.e., an extension where neither the brand nor the extension product category is culturally charged). A second Japanese brand, Panasonic, was identified as a comparison brand (relatively neutral in terms of its symbolism of the Japanese culture). Three farther stretch extensions (incongruent – Cappuccino Serving Set; neutral – Food Serving Set; congruent – Sushi Serving Set) were used in this experiment. In a 2 (brand’s cultural symbolism: high [Sony] vs. neutral [Panasonic]) X 3 (extension’s cultural congruity: congruent, neutral, incongruent) between-subjects design, participants evaluated one of the six brand extensions. Results showed that the culturally congruent extensions were evaluated more positively than culturally incongruent and neutral ones only when the brand was highly symbolic of the culture of interest (i.e., Sony), but this pattern of effects did not emerge for the less symbolic Panasonic brand, presumably because this brand failed to automatically activate the Japanese schema.

The last three experiments provided a systematic examination of the underlying process. They also assessed the robustness of the cultural congruity effect across different brands, cultural associations, COO favorability, and product categories. Results from experiment 4 demonstrated that culturally (in)congruent extensions can enhance (lower) the feeling of ease or comfort that accompanies conceptual fluency, and this feeling mediates the effects of cultural congruency on extension evaluations. Experiment 5 demonstrates the role of ease of processing (induced by conceptual fluency) in mediating the cultural congruency effects. Furthermore, the effects for culturally congruent extensions were unchanged by the inclusion of cultural primes (experiment 6), suggesting an automatic activation of cultural schemas by the culturally congruent extension. However, making participants consciously aware of the cultural connection (e.g., by an explicit tagline, experiment 6) resulted in a correction effect, lowering evaluations of the extension. This suggests that a cultural connection is considered a weak argument for extending a brand and its power lies in the automaticity of its fluency-based effects. Finally, the cultural congruency effects emerged irrespective of the perceived favorability of the culture/country-of-origin.

We show that non-attribute/category-related schemas activated by a brand extension can influence extension evaluation and override perceptions of fit. These schema-driven processes operate below the level of consciousness and affect extension evaluations through the fluency when processing the brand extension.

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Tip of the Hat, Wag of the Finger: Moral Decoupling as a Psychological Separation Process

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Former President Bill Clinton, film director Roman Polanski, golfer Tiger Woods, and Martha Stewart all share something in common: they are public figures who have engaged in immoral acts. Across politics, the arts, sports, and business, countless such scandals dominate the media and public dialogue. How do consumer perceptions of immorality affect their judgments of performance, and the extent to which they support such public figures? We propose that people engage in *moral decoupling*, a psychological separation process by which they selectively dissociate judgments of morality from judgments of performance.

Surprisingly little work informs our understanding of how consumers come to support those who have transgressed. Consumers are more likely to punish public figures perceived to be sinners versus those perceived as sick (Weiner 1993). Other approaches highlight how different brand personalities affect how transgressions are perceived (Aaker, Fournier and Brasel 2004) and how apologies repair trust (Wooten 2009). However, none of this work has explicitly examined public figures as brands or focused on the moral reasoning strategies of consumers.

Though moral beliefs are among the strongest beliefs that people hold, they are subject to motivational biases (Ditto, Pizarro and Tannenbaum 2009). Contemporary research argues that moral reasoning is usually a post-hoc construction generated after an intuitive judgment is reached, and operates like an “intuitive lawyer,” selectively searching for information to reach a desired, self-serving conclusion (Baumeister and Newman 1994; Haidt 2001). Current research also emphasizes rationalization processes, such as moral disengagement (e.g. Bandura 1999), by which consumers reconstrue transgressions to justify behavior. Recent findings suggest that moral disengagement can be manipulated by affective motivation and affect consumer outcomes (Paharia, Deshpande and Vohs 2010). However, because moral disengagement requires people to implicitly condone an immoral behavior, and because such judgments are deeply tied to the self (e.g. Aquino and Reed 2002; Bandura 1991), this mechanism may threaten consumers’ sense of moral self. Instead, we propose that people also engage in moral decoupling, a distinct form of moral reasoning that enables consumers to support public figures who have transgressed while still condemning the transgression. Essentially, moral decoupling works by altering the manner in which an individual views moral actions to be relevant to performance in a given domain. By dissociating performance from morality, an individual can support an immoral actor without being subject to self-reproach.

Four studies test this theorizing. A pilot study aimed to provide initial evidence that moral decoupling is distinct from rationalization processes like moral disengagement. Participants read a scenario describing an ice hockey star who leads his team to an Olympic gold medal and is then discovered to have physically abused his wife. Participants rated their agreement with moral decoupling and disengagement items and rated the player on performance and degree of immorality. Multiple linear regressions found that only moral decoupling significantly positively predicted performance ratings ($t(89)=7.43, p<.001$), while only moral disengagement significantly reduced judgments of immorality ($t(89)=-2.57, p=.012$), suggesting that these constructs are conceptually distinct.

In our next study, we sought to gain causal insight by priming specific moral reasoning strategies. Participants reflected on statements related to either moral decoupling, moral disengagement, or humor (as a control). They then read a scenario about a CEO of a consumer electronics firm who has supported discriminatory hiring policies, and rated him on job performance and degree of immorality, as well as their own likelihood of supporting the firm as consumers. Planned contrasts revealed that participants in both

the moral decoupling and disengagement conditions were more likely to purchase from the firm, relative to control ($F(1,80)=11.95$, $p<.001$), as expected. Specifically, moral decoupling condition participants rated performance above both other conditions ($F(1,80)=7.01$, $p=.009$). Meanwhile, moral disengagement condition participants rated the CEO as marginally less immoral than both other conditions ($F(1,80)=3.40$, $p=.069$), illustrating the difference between these psychological mechanisms.

Next, we examined the process of moral decoupling by directly varying relevance—a key theoretical test. Immoral acts that are highly relevant to the domain of performance should be harder to dissociate. Participants read a single version of scenario that varied both the transgressor (baseball player vs. governor) and the transgression (steroids vs. soliciting a prostitute), and provided ratings of job performance, immorality, and willingness to support the transgressor. As expected, ANOVA found a significant interaction ($F(1,85)=26.51$, $p<.001$), such that participants were more supportive when transgressions were less relevant. Importantly, a bootstrap test of multiple mediation (Preacher and Hayes 2008; Zhao, Lynch and Chen 2010) found significant indirect effects of both moral decoupling ($a_1b_1=-0.85$, $p<.001$) and moral disengagement ($a_2b_2=-0.16$, $p<.05$) on the relations between relevance and support. Further tests found that only moral decoupling mediates the relations between relevance and performance ($a_1b_1=-0.95$, $p<.001$), while only moral disengagement mediates the relations between relevance and perceived immorality ($a_2b_2=0.31$, $p<.05$). While both processes can boost support for transgressors, our results show that they are conceptually distinct.

Finally, we investigated the differential implications of moral decoupling versus moral disengagement for one's moral sense of self. Participants read scenarios about either a movie star or a football player who had abused his wife, and were provided with five arguments in support of a recent performance by the transgressor. Two arguments were consistent with moral decoupling, while three were consistent with disengagement. Participants selected the argument that best represented their feelings, then answered a series of questions. Across both scenarios, 84% (68 of 81) participants chose a decoupling statement, suggesting that decoupling is pervasive and intuitively appealing. Most importantly, participants who chose a moral decoupling argument indicated that they found the argument easier to justify, felt less wrong, and indicated that they would feel more comfortable defending the argument to others ($F(1,79)=6.63$, $p=.012$) than participants who chose a disengagement argument.

Thus, we outline the existence and nature of a new psychological mechanism—moral decoupling—by which consumers selectively dissociate judgments of morality from judgments of performance in order to support public figures who have transgressed. Doing so allows consumers to support immoral actors while condemning their actions, simultaneously tipping their hats and wagging their fingers.

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6.7 Individual Papers: Power and Compensatory Consumption

Room: Maple Room B

Chair: Jimmy Wong, University of Illinois

The Psychology of Powerlessness and Preferences: Consequences for Consumers' Choices within a Hierarchy

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One of the most basic features of a consumer product is its size (Granger & Billson 1972; Chandon & Wansink 2007; Wansink, 1996). Because it is readily available to the eye, size is often used as a cognitive shortcut that permeates consumers' perception and behavior. For instance, consumers believe taller glasses contain more liquid than shorter glasses (Raghubir & Krishna 1999), and larger products offer more quantity than smaller products (Wansink 1996). Despite these efforts, little is known about what psychological factors determine consumers' preferences for size.

As a first step, we propose that, all else equal, states of powerlessness might shift consumers' preferences towards larger sizes. Our reasoning stems from two separate observations. First, people naturally associate greater power with greater length and size (e.g., Schubert, Waldzus & Giessner 2009) or height (e.g., Dannenmaier & Thumin 1964; Wilson 1968). For instance, estimates of height increase with increases in perceived power (Wilson, 1968). Second, given lacking power is associated with negative individual (e.g., lacking optimism, Anderson & Galinsky 2006) and social (e.g., lower financial returns in bargaining situations, Magee et al., 2007) benefits, the powerless often try to associate themselves with consumer products to help compensate for their lack of power. For instance, powerlessness enhances one's valuation of status-related products (Rucker & Galinsky 2008) and money (Dubois et al. 2010), both associated with power.

Given that power is associated with greater height, length or size, and that the powerless are motivated to compensate for their lack of power, we propose powerless individuals might opt for physically larger products from a set as a means to signal a higher position in a hierarchy. For example, when choosing between a small, medium, or large version of a product, powerless individuals might be more inclined to choose the largest one. Second, we predict that if the preference for larger sizes derives from size serving as a signaling device to others, it should be less pronounced in non-social consumption settings than in social ones. Third, although we suggest that in many hierarchies the default is typically that bigger is better or of greater signaling value, we investigate whether the powerlessness-induced preference for larger sizes reverses for categories where size is negatively associated with signaling value (e.g., cell-phones). For these categories, we predict powerless individuals will prefer physically smaller options within a hierarchical set of options, not larger ones, relative to high-power and baseline participants. We conducted three experiments to test these hypotheses. Results were analyzed using ANOVAs, regressions and t-tests, as appropriate.

Experiment 1: Demonstrating the preference for larger sizes. Participants were randomly assigned to a 3-cell (power: high, low, baseline) between-participant design and were asked to imagine they were either a boss (high power) or an employee (low power; see Lammers et al., 2008). Next, in a different task, participants presented with a choice of three ice creams (small, medium or large cups), and were asked which one they would be most likely to buy. Low-power participants systematically chose larger ice creams than baseline and high-power participants, $p < .05$.

Experiment 2: The moderating role of consumption social visibility. If the preference for larger sizes stems from size serving as a signaling device to others, it should be reduced in non-social consumption settings. To test this hypothesis, experiment 2 varied both power (high, low) and the consumption social visibility (private, public, social). Power was manipulated through episodic recall (Galinsky et al. 2003). Next, in an ostensibly different task, participants were assigned to one of three consumption scenarios. Each scenario entailed choosing between different sizes of pizza for immediate consumption for themselves, but we varied the social visibility of consumption. Consumption either took place at home alone (privately), by one's self in public at the pizza restaurant (publicly) or with friends (socially). In each scenario, participants had to buy a Giordano's Cheese Pizza from a fixed menu with 3 sizes (7", 9" and 11") that was explicitly for their own consumption (i.e., they would not be sharing). There was a significant power \times social visibility interaction, $p < .05$, such that low-power participants significantly chose larger pizzas as the social visibility of consumption increased, $ps < .05$, whereas high-power participants' preference for size did not differ across consumption conditions, $ps > .2$.

Experiment 3: Will larger always be preferred? Although the prior studies have found that low power produces a preference for larger sizes, presumably supported by implicit cultural norms associating larger objects with greater value (Barthes, 1964; Baudrillard, 1998), we would expect the powerless to prefer smaller sizes when smaller is associated with greater value. To test this idea, we manipulated power as in experiment 2 and presented participants in an ostensibly different task with a set of cell-phones of three different sizes (small, medium and large), a product category pretested for its negative size-to-signaling value relationship. Participants were then asked for their willingness to pay for the smallest cell-phone in the set, and later how much they associated larger size to signaling value to others. Results showed low-power participants were significantly more likely to choose the smaller cell-phone than high-power participants, $p < .05$. In addition, low-power participants reported a higher signaling motive than high-power participants, $p < .05$. Finally, signaling motive successfully mediated the effect of power on willingness to pay (95% CI for the indirect effect = .12 to .85).

Conclusion and Contributions. Across experiments, individuals experiencing a state of powerlessness systematically displayed a preference for products which size was associated with greater status (ice creams, pizzas, cell-phones), presumably because greater offered a means to address their loss of power through signaling to others. Furthermore, the preference for larger sizes was reduced when consumption took place in private setting (experiment 2) and reversed when smaller was equated with greater signaling value (experiment 3). Thus, the present research suggests that simple differences in psychological power can permeate into and exert profound effects on basic consumer choices.

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Effects of Perceived Income Distribution, Equality, and Economy on Preferences for Conspicuous Consumption

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It is widely believed that increasing income equality should reduce conspicuous consumption (Bagwell and Bernheim 1996). It is also believed that conspicuous consumption should drop in a recession, due to falling incomes and rising income equality (Moses 2008). Yet recent findings reported that boosting equality may backfire and increase conspicuous consumption among relatively poor

consumers, as it allows those who consume to “leapfrog over” a larger portion of the population stacked in middle tiers (Ordabayeva and Chandon 2010). These arguments assume that consumers have an accurate perception of the income distribution and how it is changing. To correctly interpret them and to recommend effective strategies to reduce conspicuous consumption in a recession, it is important to test the role of perceptions. In this research, we examine the effects of perceived and actual income distributions on people’s preferences for conspicuous consumption and test the roles of beliefs about equality and economy.

Specifically, we test whether conspicuous consumption is motivated by the perceived or the actual income distribution, income level or income rank, and examine how it changes depending on consumer beliefs about equality and economy. We predict that, due to its implications for social position, conspicuous consumption is predicted by income rank (i.e., position in the income distribution) rather than income level. Specifically, it is driven by rank in the local, rather than country-level, income distribution, consistent with social comparison theory (Festinger 1954). Further, because it is difficult to know the shape of the actual distribution, the effect of local rank should be moderated by perceived rather than actual distribution equality. Consistent with the “leapfrogging” hypothesis (Ordabayeva and Chandon 2010), high perceived equality should reduce conspicuous consumption among relatively rich consumers, but it should ironically boost conspicuous consumption among relatively poor consumers. We believe this ironic effect of equality could reverse when anticipating a recession.

In the first study, participants from a representative sample of US households used the Distribution Builder tool online (Goldstein, Johnson, and Sharpe 2008) to build the distribution of income that they believed was prevalent in the US. Afterwards they made three choices between inconspicuous and conspicuous consumption (renting an economy car vs. a premium car for a high school reunion, spending on necessities vs. luxuries if anticipating a salary bonus, saving on home decoration vs. home maintenance if anticipating an increase in expenses). We computed each participant’s percentile in the perceived, country-level, state-level, and local area (core based statistical area)-level income distributions and GINI indices of the perceived and corresponding state- and local area-level income distributions. As predicted, percentile in the local income distribution predicted consumption decisions better than income level or percentile in the perceived, state- or country-level income distributions. The effect of local income rank was moderated by the GINI index of the perceived distribution. High perceived equality led to weaker preferences for conspicuous consumption among the top 50% of local earners, but it led to *stronger* preferences for conspicuous consumption among the bottom 50% of earners. Hence boosting perceived equality may indeed backfire for relatively poor consumers.

In the second study, we tested whether this ironic effect of equality would be similar in an economic expansion and a recession. This study was conducted in the lab, it focused on relatively poor consumers (who are at a higher risk of overspending) and actually provided the local distribution of a status product. The participants read that they were going on a beach vacation with their classmates and that they brought old unbranded sunglasses with them. At the beach, old sunglasses put them at the bottom (tier 5) of the distribution of sunglasses in their group, which led them to consider spending € 90 on higher-status tier 3 sunglasses instead. The distribution of sunglasses was equal (with 15%, 25%, 15%, 40%, 5% of people in tiers 5-1) or unequal (with 15%, 15%, 15%, 40%, 15% in tiers 5-1), and the vacation was taking place in the time of an economic expansion or a recession (we provided basic facts about an expansion or a recession). The participants chose between spending € 90 on tier 3 sunglasses and saving the money. As expected, when anticipating an expansion bottom-tier people were more likely to spend the money in the equal (vs. unequal) distribution. But anticipating a recession decreased their overall likelihood to spend, even more so in the equal distribution. A pilot study showed that this could be due to people’s desire to fit in and to strengthen bonds with others in recessionary times. This showed that a recession may reduce the conspicuous consumption of relatively poor consumers, especially when equality increases at the same time.

Overall these findings improve our understanding of the macro-level and individual-level factors that drive conspicuous consumption. They show that merely changing people's beliefs about equality may be sufficient to shift their preferences for conspicuous consumption, which could be especially useful for increasing savings in this recessionary period.

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Beggars will be Choosers: Feeling Deprived Induces Preference for Scarcity

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People routinely compare themselves with others on a range of dimensions that are salient, subjectively relevant, and difficult to evaluate objectively (Festinger 1954; Suls and Miller 1977). However, social comparison can be distressing when it highlights individuals' shortcomings. Specifically, comparison to a superior standard can produce negative affect and arousal, which people are motivated to resolve (Brickman and Bulman 1977; Tesser 1988). But motivations, in turn, can influence how people gather, process, and remember information (Balcetis 2008). Indeed, dozens of studies have shown that motivational states influence a range of judgments, from those requiring effortful information processing to those involving the perception of visual information that never reaches consciousness (Balcetis and Dunning 2006; Festinger 1957; Heider 1958; Kunda 1990). Our research combines the literatures on upward social comparison and motivation to help explain consumer attention, preference, and choice under conditions of financial deprivation. Specifically, we examine how financial deprivation might influence both consumers' choices, and the process by which they attempt to restore their sense of financial wellbeing.

Financial wellbeing is ripe for social comparison, as wealth matters to most people and is very difficult to evaluate in the absence of comparison standards (Hsee et al. 2009). We define *financial deprivation* as a psychological state in which people feel financially 'inferior' or 'worse off' in comparison to a given standard—either another person or their own financial position earlier in time. Importantly, financial deprivation implicates a lack of possession of valued objects (e.g., concrete objects, abilities, or states of being), which differentiates it from other states of inferiority. We suggest that financially deprived consumers are motivated to ameliorate the unpleasant arousal associated with deprivation by responding more sensitively to stimuli that have the potential to restore their sense of parity relative to others. We propose that scarce stimuli serve such a function, in contrast to stimuli that are abundantly available to others.

Four studies illustrate the influence of financial deprivation on consumer responsiveness to scarcity. We find that: (1) feeling deprived relative to others increases consumers' attention to, preference for, and consumption of scarce items, (2) consumers are more sensitive to scarcity when they feel deprived (versus flush) and thus tend to use scarcity cues when assessing their preferences for goods, (3) responsiveness to scarcity is driven by a motivation to ameliorate the unpleasant arousal associated with deprivation, and (4) these effects are eliminated when people attribute their unpleasant feelings to an unrelated source.

In study 1a, participants determined the relative frequency of black and white gumballs in an array. Half of the participants identified which color was *more* frequent in the array; the other half identified which was *less* frequent in the array. Participants also completed several questions regarding their financial wellbeing. People who felt less financially comfortable tended to perform with greater accuracy, but only when the task was framed as a scarcity (rather than abundance) detection exercise. The interaction between

participant performance and task framing (scarcity vs. abundance detection) provides preliminary evidence that people tend to be more sensitive to scarcity cues when they feel deprived.

Study 1b employed a similar design, but assessed preference for scarcity with a behavioral consumption measure. Participants were given a cup containing many M&M's of one color and few M&M's of another color. As in study 1a, participants who were relatively more financially deprived tended to consume a higher percentage of the scarce rather than abundant M&M's.

In study 2, we manipulated deprivation by asking participants to write about a time when they felt either financially worse than (deprived condition) or on par with (control condition) their peers. We gave them a new scarcity detection task, in which they were asked to estimate the relative frequency of two different characters from the "*Where's Waldo?*" book series. Participants were asked to view the arrays for two seconds and then to identify which character was less present. As predicted, participants who wrote about feeling deprived did better at detecting scarce "*Where's Waldo?*" characters. This study provides causal evidence of a relationship between deprivation and sensitivity to scarcity.

In study 3, we employed an experimental design similar to study 2 but included measures regarding preferences for items available during "Restaurant Week." In line with studies 1a, 1b, and 2, participants who wrote about feeling deprived (versus participants in a control condition) performed with greater accuracy on the scarcity detection task. Furthermore, those who felt deprived had a preference for scarce versus non-scarce items offered at restaurants. Mediation analysis revealed that participants' sensitivity to scarcity (i.e., their ability to detect scarcity) explained their preference for scarce items.

In study 4, we found that deprived participants only preferred scarce items when they were unable to attribute the unpleasant arousal associated with deprivation to an external source. Specifically, deprived participants preferred scarce candy (rather than abundant candy) except when they were led to attribute their feelings to a clip of whale songs that they had heard earlier in the experiment. This study provides evidence that deprived participants' preference for scarcity is indeed driven by a motivational component, and cannot be explained by mere priming.

This work suggests that feeling financially deprived has systematic effects on consumer attention, preference, and choice. There are many real world implications of this work, particularly in the current economic environment and the tendency for most people to feel financially deprived at least in some contexts. The effects we illustrate speak to these implications, while addressing factors such as mood and cognitive ability. We find that beggars will be choosers—choosers who prefer what's scarce.

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Effects of Regulatory Mode on Power

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Existing research suggests that power causes people to be more action oriented and such actions triggered by power are usually taken without regards for others (Galinsky, Gruenfeld, & Magee, 2003), hence the common perception that power corrupts. However, power can also trigger prosocial behaviors (Torelli & Shavitt, in press), and lead people to pay more attention to those who lacks power

(Overbeck & Park, 2001). Because power plays a fundamental role in shaping our social life (Fiske, 1993), it is important to understand what causes people to exercise their power differently. Using regulatory mode theory, this research suggests that individuals' mode of self-regulation can influence how power is exercised.

Regulatory mode theory distinguishes two contrasting self-regulatory functions - locomotion versus assessment (Kruglanski, et al., 2000). Locomotion emphasizes movement from a current state toward a desired end-state; individuals who prefer locomotion – *locomotors* tend to emphasize “just doing it” (Higgins, Kruglanski, & Pierro, 2003). In contrast, assessment focuses on critical evaluation of entities and end-states; individuals who prefer assessment – *assessors* tend to be preoccupied with evaluating pros and cons of situations, they may come across as being overly cautious, and are generally less impulsive than locomotors.

Because power leads to actions, and given that locomotion involves committing psychological resources to get things done (Kruglanski et al., 2000), this research predicts that powerful locomotors may not think about the consequence of their actions and engage in goal-striving activities with little regards for others. This fits the typical description of an impulsive dictator who exercises power for selfish goals. In contrast, assessment involves critical evaluations of not only goals but *proper means* toward these goals (Kruglanski et al., 2000). Hence, assessors in position of power will be more mindful of the consequence of their goal-striving actions. This fits the description of the benevolent leader who exercises power for the common good. Three studies are conducted to test these assertions.

In study 1, participants' chronic regulatory mode was first measured (Kruglanski, et al., 2000) followed by a power prime where participants wrote about a situation where they influenced others (high-power) or were influenced by others (low-power). Participants in the neutral condition wrote about a grocery trip (Galinsky et al., 2003). Next, participants played two rounds of a blackjack game. In each round, players' initial cards totaled 16 and the dealer's faceup card was a ten (see Galinsky et al., 2003). Participants then chose between “HITTING” for another card or to “STAND” (i.e., not to take a card). The outcome was rigged such that participants would lose round 1 - if participants chose to hit, they will receive a 6 which exceeded 21; if a stand option was chosen, the dealer would out-score the participants.

In round 1, regulatory mode did not influence participants' decisions; the hit-rate by participants in the high-power condition was much higher (33 of 36; 92%) than the other two conditions ($\chi^2(2, N = 107) = 46.7, p < .001$). This supported the notion that power leads to action.

However, in round 2, 17 (of 18; 94%) high-power locomotors continued to hit ($\chi^2(2, N = 52) = 21.5, p < .001$) whereas only 3 (of 18; 17%) high-power assessors hit for a card ($\chi^2(2, N = 55) = 8.8, p = .012$). The hit-rate between assessors and locomotors in the other two power conditions ranged between 47% and 67%. These suggested that high-power assessors were more mindful than high-power locomotors to switch decisions in round 2.

Study 2 involved two dilemma games where participants chose between options that maximize self or collective interest. In addition, we measured participants' general sense of power (Anderson & Galinsky, 2006) and primed situational regulatory mode (Avnet & Higgins, 2003). Next, participants played a commons dilemma game or a public-goods dilemma game to win a prize of \$10 (see also Galinsky et al., 2003). In a commons dilemma, players decide how many points to *take* from a common pool; in the public-goods dilemma, players decide how many points to *contribute* to a common pool. In both games, players need to accumulate as many points in order to win; but if the common pool is depleted beyond a minimal level, the game ends and no one wins.

Regression results showed that participants' sense of power interacted with the regulatory mode prime to influence the amount withdrawn in the common dilemma ($\beta = -2.201, t = -3.933, p < .001$) and amount contributed in the public-goods dilemma ($\beta = 1.431, t = 4.594, p < .001$). Subsequent spotlight analyses indicated that high-power assessors took less ($\beta = -1.917, t = -2.833, p = .015$) and contributed more ($\beta = 3.550, t = 11.246, p < .001$) than high-power locomotors in both games. These results indicated that regulatory mode moderated power-holders' actions. No differences emerged among participants with low power.

In study 3, participants' regulatory mode was first measured followed by a power prime. Next, participants were presented a scenario of a crowded café where only two tables were available and were asked to choose between a small table (prosocial choice) or a big table (pro-self choice); they were also told that four customers had just arrived and might need the big table. After indicating their choice, participants listed their thoughts regarding their decisions.

Results showed that 12 (of 13) high-power locomotors chose the big table ($\chi^2 (2, N = 37) = 6.807, p = .033$) whereas 13 (of 15) high-power assessors chose the small table ($\chi^2 (2, N = 40) = 7.457, p = .024$). Decisions in the neutral and low power condition were fairly mixed between assessors and locomotors. Thoughts analysis showed that high-power locomotors generated more pro-self thoughts (e.g., I came first!) whereas high-power assessors generated more prosocial thoughts (e.g., let others have the big table); thought patterns in the other power conditions were non-conclusive.

Together, these studies strongly suggest that although power leads to more actions, individuals' self-regulatory mode can influence the type of actions taken by power-holders.

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6.8 Individual Papers: The Role of Perceptual Cues in Persuasion

Room: Maple Room C

Chair: Michal Herzstein, University of Delaware

Warning consumers against product placement: what does and does not work?

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Product placement (pp) is the paid inclusion of a brand in editorial contents, mostly without consumers being aware of its commercial intent (Balasubramanian, 1994; Karrh, 1998). Hence, persuasion knowledge (PK) (i.e., the knowledge people rely on to deal with a persuasion attempt) is not always activated when being confronted with it (Friestad & Wright, 1994; Wei, Fischer & Main, 2008; Campbell & Kirmani, 2000).

Ethical concerns and requests for regulation ensue from the fact that pps subconsciously influence consumers' buying behavior (e.g., Bennett, Pecotich & Putrevu, 1999; Nebenzahl & Jaffe, 1998; Law & Braun, 2000). Recently, the EU obliged broadcast channels to

disclose pps to viewers. Belgian broadcast channels use the warning symbol, “PP”, which appears in the beginning and at the end of the program in a corner of the screen. In the UK, a similar symbol will be used from next year onwards (<http://www.ofcom.org.uk/>).

Study 1 investigates the effectiveness of the PP-symbol in terms of the extent to which it activates PK, increases recall and recognition of the placed brands and diminishes the influence of pps on brand attitudes and purchase intentions (e.g., Cowley & Barron, 2008; Wei et al., 2008). As the symbol does not really stand out due to its vague colors and appearance during the program (e.g., Wogalter, Conzola & Smith-Jackson, 2002; Wogalter & Laughery, 1996; Wogalter, Kalsher & Racicot, 1993) and may be poorly understood (e.g., Davies et al., 1998; Lesch, 2003), we expect that a short text message before the movie/program stressing the appearance and the objectives of pps, will be more effective than the PP-symbol.

Study 1 ($N=146$) consisted of three conditions: (1) a text message preceding a movie fragment, (2) the PP-symbol appearing in the beginning of the fragment for four seconds, and (3) no warning accompanying the fragment. A one-way ANOVA does not show any differences between the PP-symbol and the no warning condition. The text warning induces more recall, recognition and PK activation than the PP-symbol ($p_{\text{recall}}=.046$; $p_{\text{recognition}}=.033$; $p_{\text{PK}}=.002$) and the no warning condition ($p_{\text{recall}}=.035$; $p_{\text{recognition}}=.025$; $p_{\text{PK}}=.001$). Furthermore, an interaction between the warning conditions and brand recognition on purchase intentions ($p=.049$) shows that when respondents recognize the placed brand, the text leads to lower purchase intentions than the symbol ($p=.010$) and the no warning condition ($p=.001$). When respondents do not recognize the brand, neither warning is effective. No significant effects are found on brand attitudes. In sum, a textual warning proves to be effective whereas the PP-symbol does not.

As not all textual warnings will be equally effective, Study 2 focuses on the type of social influence comprised in the warning and the temporal placement of the warning as potential moderators.

Concerning the former, a distinction can be made between informational and normative social influence (Deutsch & Gerard, 1955; Burnkrant & Cousineau, 1975). Informational social influence is the influence to perceive information received from a credible source as new or additional knowledge. Normative social influence is the influence to comply with the expectations and norms of a reference group. Lord, Lee and Choong (2001) found that the degree to which a purchase situation is influenced by either normative or informational influence depends on the levels of involvement, complexity and conspicuousness of the product. Laymen may consider pp as a complex mechanism for which additional information is helpful to diminish their uncertainty about pp. Furthermore, if laymen read a warning about the influence of pp, it will probably personally affect them and accordingly, increase their subject involvement. Finally, the pp influence process is not visible by referents and hence, not conspicuous. Consequently, in line with the findings of Lord et al. (2001), we hypothesize that an informational warning is more effective for pp than a normative warning.

Concerning temporal placement of a warning, Kiesler and Kiesler (1964) already found that a forewarning entails resistance to an explicit propagandistic point of view, whereas an afterwarning has no annulling effect on the persuasive attempt. Transferring these results to a pp context, we hypothesize that a forewarning is more effective than an afterwarning to reduce the pp influence.

Study 2 ($N=220$) consisted of a 2 (informational vs. normative warning) x 2 (forewarning vs. afterwarning) + control group (no warning) between-subjects design. Results largely support our hypotheses.

Both an informational ($p=.017$) and a normative warning ($p=.002$) lead to higher recall than no warning. An informational warning leads to higher recognition than no warning ($p=.083$), but only when people are forewarned. Moreover, both a normative ($p=.003$) and an informational warning ($p=.002$) activate more PK than no warning. Further, an informational warning induces lower purchase

intentions than a normative ($p=.014$) or no warning ($p<.001$), but only when participants recognize the brand. A normative warning does not decrease intentions. As in Study 1, neither warning is effective when the brand is not recognized. Finally, an informational warning produces less favorable attitudes than no warning ($p=.099$). Not only the type of social influence, but also temporal placement proves to be an important moderator. The results indicate that a forewarning induces more recall, recognition and PK than an afterwarning ($p_{\text{recall}}<.001$; $p_{\text{recognition}}=.004$; $p_{\text{PK}}<.001$) and more recall and PK than no warning ($p_{\text{recall}}=.001$; $p_{\text{PK}}<.001$), while no differences emerge between an afterwarning and no warning. Both a forewarning ($p=.004$) and an afterwarning ($p=.020$) induce lower purchase intentions than no warning, but again, only when respondents recognize the brand. No differences are found between a forewarning and an afterwarning. However, as a forewarning induces more recognition, and as the effect on purchase intentions is only present when people recognize the brand, we can conclude that a forewarning is more effective than an afterwarning for reducing purchase intentions. Brand attitudes are also less positive in case of a forewarning than an afterwarning ($p=.061$). Finally, no interaction effects are found.

In sum, the recently used PP-symbol is ineffective, albeit that effective disclosure was the only condition under which pp was legally allowed in the EU. A text message proves to be more effective than a symbol, especially when the text includes informational social influence and is presented before the movie.

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If it's similar, it's more likely...but can it be worth it? The Impact of Manipulating Perceived Similarity on Probability and Outcome Value

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Sweepstakes have been used largely in marketing practices to generate excitement and raise awareness by giving customers opportunities of winning the featured prizes. Both the featured prizes and the odds of winning the prizes determine the attractiveness of sweepstakes. Customers, however, usually do not have access to the true odds of winning. Therefore, customers are prone to use other cues to form probability judgments and evaluate the sweepstakes.

According to the probability judgment literature, people develop intuitive probability judgments from extraneous cues such as descriptions of the event (Tversky and Koehler 1994), the representativeness or availability of exemplars (Kahneman, Slovic, and Tversky 1982), mood states (Wright and Bower 1992), and cognitive orientation (Wakslak and Trope 2009). The current work suggests that probability judgments are sensitive to another cue, perceived proximity to the individual affected by the event. Specifically, we propose that people use the proximity of the related entity as a cue to infer (1) the probability of an event, which in return impacts (2) the evaluation of the event outcome.

Indeed, it is true that for most daily life cases, the occurrence of an event can usually be predicted by the proximity of a related entity. For example, we are more likely to get sick when our roommate catches a cold because we share the same living space. Similarly, children of parents with heart diseases are more likely to develop the same disease because of hereditary predispositions. Building on these daily life instances, people naively deduce that they are more prone to experience events that strike their close others than events that strike unknown individuals. Recent research supports this idea. Laporte & Laurent (2009) found that lottery participants estimate

their chance of winning as higher when the winner of previous round is similar to them than when the former winner is dissimilar to them. Thus, we posit that:

H1: The closer an individual feel to the person affected by the event, the more likely she is to also be affected by the same event, even when proximity should be irrelevant.

Could these inflated probabilities impact the perceived outcome? As we know, individuals' subsequent attitudes and actions are usually influenced by their probability judgments of events. For example, increasing individuals' perceptions of their own risk leads to more favorable attitudes and intentions toward practicing HIV precautionary behaviors (Raghubir 1998). However, in situations where the outcome is ambiguous or unknown, people might draw inferences on the outcome from those probability judgments. Previous research has shown that limited, scarce resources are deemed more desirable (Inman, Peter, and Raghubir 1997; Lynn 1992). Drawing on this logic, we further hypothesize that the inflated probability judgment due to perceived proximity would downplay the perceived outcome of the event. In other words,

H2: An event that has affected someone similar or close to us will appear more likely to occur, which in turn, will render the event outcome less impactful or less desirable.

Four studies were conducted to test our predictions. The first two studies tested our two main hypotheses, where proximity was manipulated by how similar the target individual was to the participants (same gender vs. opposite gender). The last two studies replicated the findings in new consumption domains and offered different manipulations of the concept of proximity.

Study 1 investigated the influence of probability information on perceived outcome. Participants read scenarios with different probabilities (winning a store gift card in a lottery and getting a flight upgrade on a trip) and then judged the outcome values (i.e., value of the store gift card and value of the flight upgrade). We found that, when the event appeared highly unlikely (5%), the gift card or the flight upgrade had the highest value. Their estimated value decreased as the event probability increased. Thus, the results confirmed the second part of our hypothesis (i.e. that people infer the value of an outcome from the event probability).

Study 2 directly tested the relationships among proximity, probability judgment, and perceived outcome value. We predicted that greater proximity would lead to greater likelihood, which, in return, would decrease the perceived outcome value of the event. The same scenarios as study 1 were used but instead of providing the probabilities, proximity was manipulated by making the target individual appear as similar (a friend of the same gender) or dissimilar (a stranger from the opposite gender) to the participants. As expected, participants who read scenarios inlaid with a similar social cue deemed the events more probable (i.e. to win the gift card and get the flight upgrade), but expected these two positive events to have a lower impact on their overall satisfaction (i.e. satisfaction of the shopping trip or the travel trip respectively).

Studies 3 and 4 replicated these results by manipulating proximity through different implementations. In study 3, a feeling of powerlessness was induced to make the target individual appear more similar. Indeed feeling powerless reduces the social distance between oneself and others, whereas feeling empowered leads to greater social distance (Dubois, Rucker, and Galinsky 2010). Participants were primed with either high power or low power words and then, on an unrelated task, they were told that a radio was giving out concert tickets. They were then asked to indicate the probability of winning the concert ticket as well as the ticket value. Participants who felt powerless felt that they were more likely to win, but in return thought that the concert ticket was worth less. Study 4 manipulated proximity by priming participants with either an individual mindset or a collective mindset. Results supported the

idea that a more collective (individual) mindset made participants perceive others to be closer, and as a result, increased (lowered) probability estimates of the event and lowered (increased) the outcome value.

Across four studies, we have shown that proximity acts as a cue to influence probability judgments. Individuals systematically accentuated their perception of event probability when they felt closer to the related entity. In addition, the probability judgment impacted their outcome judgments.

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Conditional Negativity: The Effect of Anticipated Harmfulness of Advertising Deception on Brand Evaluation

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Despite the federal, state, and intra-industry regulations, deceptive advertising still exists and has profound consequences for consumers, businesses, and society at large (Darke & Ritchie, 2007; Tipton et al., 2009). Previous studies largely focus on the misleading dimension, but very few have examined the effect of severity. In this study, we address this void in the literature and examine the extent to which the degree of anticipated harmfulness influences the brand evaluation. A deeper understanding of this issue contributes to research in deceptive advertising by shedding light on the underlying psychological mechanisms.

Consumers can acquire false product beliefs as a result of exposure to deceptive advertisements (Burke et al., 1988). Such belief-fact discrepancies, once disclosed or experienced, make consumers feel being duped and taken advantage of. Not surprisingly, the baseline impact of advertising deception on brand evaluation is inherently negative (Armstrong et al., 1979). In this study, we propose that an expectedly more pernicious, hazardous, and maleficent outcome can elicit stronger negative evaluations than otherwise. In that sense, the magnitude of negativity is conditional, depending upon the degree of anticipated harmfulness. The “*conditional negativity*” is theorized as a specific phenomenon that operates within the negative range of conventional moderation effect.

In Experiment 1, we employed a 2 (High- vs. low-degree of anticipated harm, between) x 2 (High -vs. low- deceptiveness ads, within) mixed design ($n = 89$). Twelve print advertisements were chosen from 269 online/magazine ads and pretested ($n = 46$) to represent four conditions. In each of two anticipated harm conditions (high vs. low, between-group), the participants rated six ads: three were high in deceptiveness and three were low in deceptiveness (within-group).

The ANCOVA results (controlling for prior brand experience) suggest a significant interaction between deceptiveness and anticipated harm, $F(1, 86) = 76.59, p < .001$. The brand evaluation toward more deceptive ads ($M = 2.19$) was significantly more negative than that toward less deceptive ads ($M = 5.33$) in the serious anticipated harm situation, $t(41) = 10.55, p < .001$. In the minor anticipated harm situation, however, brand evaluation ($M = 4.62$) was not significantly different between more and less deceptive ads.

In Experiment 2, we created a fictitious advertisement for a memory-enhancement nutrition brand, Mind Booster, to control for the effects of involvement and product category. We used a 2 (High- vs. low-degree of anticipated harm) x 2 (Product relevance: high vs. low) between-subject design ($n = 133$). The high-relevance ad headline says: “*Need help studying for exams? Use Mind Booster to boost your brain.*” The low-relevance ad headline says “*Can’t remember your grandkids’ names? Use Mind Booster to boost your*

brain.” Further, we added a short notice at a separate web page following the ad. In the minor-harm condition, the notice says “...scientific research has shown that Mind Booster can have *minor side effects including dry mouth and ringing in your ears*”. In the serious-harm condition, the notice says “...scientific research has shown that Mind Booster can have *serious side effects including sexual side effects and seizures.*”

It is important to note that both types of the ads were deceptive: perceived deceptiveness in the low-relevance condition ($M = 6.00$) was significantly higher than the neutral point 5, $t(62) = 6.29, p < .001$. So was in the high-relevance condition ($M = 5.65$), $t(59) = 4.02, p < .001$. We tested a series of regressions under high vs. low-degree of anticipated harm conditions, controlling for the product relevance and processing depth. The magnitude of deceptiveness coefficient was evidently stronger in the serious anticipated harm condition, which suggests that the perceived deceptiveness had a stronger impact on brand evaluation. In the major side-effect condition, $\beta_{Deceptiveness} = -.41, t(63) = -3.62, p = .001$; in the minor side-effect condition, $\beta_{Deceptiveness} = -.26, t(54) = -2.18, p = .034$.

In Experiment 3, we explored the emotional responses underlying the observed effects, and teased off the noises emanating from the omission of disclaimers, using a 2 (High- vs. low-degree of anticipated harm) x 2 (Side-effect disclaimer: included vs. not included in the ad) between-subject design ($n = 144$). The high-product relevance ads in Experiment 2 with major or minor side-effect were retained. We inserted two lines of disclaimers in the ad (in smaller font) right below the product description, which says: “*Mind Booster can have serious (minor) side effects including sexual side effects and seizures (dry mouth and ringing in your ears)*” and “*Ask your doctor if Mind Booster is right for you.*” In the non-disclosure condition, no disclaimer was added. We measured the emotional intensity attributed to within-category emotion words by counterbalancing various bipolar scales that possess less or greater intensity (see Frijda et al., 1992).

Consistent with the results in Experiment 2, the coefficient of perceived deceptiveness was stronger in the major than minor anticipated harm condition: in the major side-effect condition $\beta_{Deceptiveness} = -.30, t(61) = -2.42, p = .002$; in the minor side-effect condition, $\beta_{Deceptiveness} = -.28, t(79) = -2.61, p = .011$. Further, the intensity of negative emotions partially mediated the effect of anticipated harm on brand evaluation. The anticipated harm elicited more intense negative emotions: $\beta_{Harm} = -.43, t(140) = -5.70, p < .001$; which accounted for the negative brand evaluation: $\beta_{Negative\ Emotion} = -.19, t(140) = -2.32, p = .02$.

Combined, the conditional negativity was rather salient, when we controlled for prior brand experience, product relevance, processing depth, and disclaimers. The intensity of elicited negative emotions partially mediated the observed effect. This study contributes to the deception literature by revealing that: 1) anticipated harmfulness and advertising deceptiveness are functionally independent; and 2) deception expectancy is a strong diagnostic cue in formation of brand evaluation, especially when the perceived deceptiveness is relatively high.

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Consumers are increasingly presented with information regarding the environmental impact of products. However, these efforts often have been criticized as being ambiguous, confusing, or lacking substance. Some marketers attempt to cut through the ambiguity by incorporating certification or assurance cues that are developed and bestowed by the firm (e.g., SC Johnson's Greenlist™ label on qualifying brands such as Fantastik cleaners) or independent third parties (e.g., Environmental Protection Agency's EnergyStar® label). The purpose of our research is to investigate how persuasion is affected by such cues.

A brand's advertised claims about environmental qualities oftentimes are viewed skeptically or miscomprehended (Shrum and Lowrey 1995). Past research suggests that advertising information that is ambiguous or difficult to verify prompts skepticism and distrust of marketer actions in line with persuasion-knowledge processing (Friestad and Wright 1994). We expect that certification cues can be ambiguous or difficult for consumers to verify and that consumers will hold more negative attitudes toward self-certification versus government certification because of perceptions that self-certification lacks independence.

Our hypotheses focus on how the certification source affects persuasion that occurs through an advertising appeal framed around prevention or promotion goals and in light of consumers' environmental concern. Regulatory focus theory (Higgins 1997) indicates that individuals can attain goals through focus on promotion (e.g., achieving positive outcomes and aspirations) or prevention (e.g., avoiding negative outcomes and ensuring security). Kirmani and Zhu (2007) show that consumers holding prevention compared to promotion goals are more likely to process ads in a persuasion-knowledge mindset. We expect that a parallel message characteristic – framing an advertising appeal toward security versus achievement – will affect response to the environmental certification cue. Kirmani and Zhu (2007) suggest that prevention-framed ad headlines may increase suspicion of ambiguous claims. Thus, we expect that when an ad headline is prevention-framed, a potentially biased certification source (the manufacturer) will have a negative influence on brand attitudes relative to a less biased source (government agency). We do not expect certification source to affect brand attitudes when the headline is promotion-framed.

In addition, we explore the moderating effect of consumer involvement. Specifically, we examine whether consumers who vary in their concern for the environment respond differently to headline-framing and certification source.

We conducted an experiment where certifying entity (self vs. government) and regulatory focus (prevention vs. promotion) were manipulated and environmental concern was measured. Participants ($n = 144$) viewed a target ad for Clean Well Hand Sanitizer, which was embedded in an online magazine. The ad included a headline, four claims, and a description of the $\sqrt{\text{SmartCheck}}$ certification cue. The source of the SmartCheck certification was either "Our Company" or the "U.S. Consumer Product Safety Commission." The headline appealed either to prevention (*Protecting you from Illness the Natural Way*) or promotion (*Keeping you Healthy the Natural Way*). Brand attitude and beliefs were measured with multi-item 7-point scales, and open-ended responses were obtained.

Manipulation checks showed that U.S. Product Safety Commission certification was a more independent, trustworthy, and favorable source than manufacturer certification (p 's $< .05$). Following Kirmani and Zhou (2007), the regulatory focus manipulation was assessed based on agreement with the statement "before I saw the ad, I suspected it would contain undue persuasion" (M prevention = 4.32 vs. promotion = 3.88, $F_{1,140} = 5.27$, $p < .023$).

Because environmental concern is a continuous measure, we used regression analysis. We regressed each dependent measure on dummy variables representing certification source (1 = company, 0 = government), ad appeal framing (1 = promotion, 0 = prevention), environmental concern, all interactions, and interest in hand sanitizers as a covariate.

Our hypotheses suggest a significant interaction between headline framing (focus) and certification source (source) on brand attitudes. This interaction was moderated by environmental concern, as indicated by a significant focus x source x environmental concern interaction effect on brand attitudes ($\beta = -.71$, $p < .05$). We followed up these analyses using a median split on environmental concern. For low concern consumers, the expected focus x source interaction was marginally significant ($\beta = .855$, $p < .094$). Specifically, among low-concern consumers processing a promotion-focused appeal, there is no effect of certification source on brand attitudes ($p > .81$). However, with a prevention appeal, brand attitudes are more positive when the certification source is a government agency versus the company ($\beta = -.763$, $p < .038$). In other words, when the ad uses a prevention appeal, low-concern consumers evaluate the brand more favourably when the government agency is the certification source.

The pattern is different for high-concern consumers. For these consumers, brand attitudes are more positive when the certification source is the company, regardless of headline (main effect of source $\beta = 1.08$, $se = .42$, $p < .012$). Consumers who are concerned about the environment seem to make positive inferences about the brand when the company sponsors the certification. A similar pattern of results occurs for high- versus low-concern consumers regarding beliefs about illness prevention.

To further understand processing, we analyzed open-ended thoughts. More total thoughts were elicited in the prevention vs. promotion condition ($\beta = -2.20$, $se = 1.08$, $t = -2.04$, $p < .044$). In addition, there was a significant interaction between headline framing and environmental concern ($\beta = .41$, $se = .21$, $t = 1.97$, $p < .051$). In the prevention condition, total thoughts did not vary by environmental concern. However, in the promotion condition, number of thoughts was positively associated with environmental concern ($\beta = .31$, $p < .034$). We also calculated an index of thought favorability by subtracting the number of negative thoughts from positive thoughts for each participant and observed a significant interaction between certification source and environmental concern ($\beta = .749$, $p < .019$). Valence of thoughts was not associated with environmental concern when the certification source was the government ($p > .98$) but was when the certification source was the company ($\beta = .736$, $p < .021$).

Our research provides a theoretical foundation for understanding conditions under which certification cues will be persuasive. Our findings show that response to certification cues is contingent on the consumer's environmental concern and can be affected by the regulatory mindset the consumer holds when processing ads containing cue information. Our theory and findings also explain conditions needed to overcome consumers' tendency to perceive self-certification as biased. We will discuss theoretical implications and future research at the conference.

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7.1 Individual Papers: Consumer Information Processing, Judgment, and Mental Simulation

Room: Grand Ballroom A

Chair: Lei Huang, Dalhousie University, Canada

The Maladaptive Use of Simple Decision Aids

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To help consumers deal with increasing amounts of information, many marketers offer decision aids that allow consumers to sort or select alternatives for consideration. For example, on Expedia, consumers can sort hotels by price or by distance to an airport. Such simple decision aids are different from more complex aids that recommend, and sometimes sort, alternatives based on expected utility (Diehl 2005; Diehl, Kornish, and Lynch 2003; Häubl and Trifts 2000) in that they do not require consumers to indicate the relative importance of different attributes either directly (Diehl et al. 2003; Häubl and Trifts 2000), through prior behavior (Ansari, Essegai, and Kohli 2000), through questions about related demographic characteristics or usage intentions, or through conjoint tasks (De Bruyn et al. 2008). This may account for their extensive deployment relative to decision aids that require greater consumer effort (De Bruyn et al. 2008; Murray and Häubl 2009). Nevertheless, their effects on consumer decision making are not well understood.

Researchers have long been interested in supplementing human cognition with decision aids (Bucklin, Lehmann, and Little 1998; Leeftang and Wittink 2000; Little 1970; Wierenga, Van Bruggen, and Staelin 1999). Based on the idea that humans have limited information processing abilities (Simon 1957), while a computer's ability to process information is virtually limitless (Bucklin et al. 1998), there is a belief among many marketing researchers that decision aids will "rescue" humans from their cognitive shortcomings; particularly in electronic environments (Bellman et al. 2006; Van Bruggen, Smidts, and Wierenga 1998; West et al. 1999). Consumers generally trust decision aids to help them make good choices (Komiak and Benbasat 2006) and reveal their innermost secrets to computers that engage them in human-like dialog (Moon 2000). Yet, there are some who warn of dangers of abdicating decision making to computers (Lanier 2010).

Importantly, the consumer decision aids shown to be helpful by academic research (i.e., agents that recommend alternatives based on weighted-additive utility as derived from elicited or revealed preferences (De Bruyn et al. 2008; Diehl et al. 2003; Häubl and Trifts 2000), have shown little traction in the marketplace (Murray and Häubl 2009). Instead, online consumers are most often provided with simple decision aids such as sorting.

This article proposes that, although consumers may be highly *adaptive*, in terms of changing their *internal* decision strategies to meet the information processing needs of particular choice environments, they may be *maladaptive* in their use of *external* decision aids. In particular, because they trust decision aids to help them make good decisions and reduce decision effort (Bechwati and Xia 2003; Komiak and Benbasat 2006; Todd and Benbasat 1999), consumers will increase their use of simple decision aids in difficult choice contexts such as those involving choice conflict or large numbers of alternatives. Because simple decision aids such as sorting fail to

account for multiple attributes when ranking alternatives, an increase in their use in difficult choice settings may have the perverse effect of reducing decision quality.

We examine these ideas in a series of experiments in which the correlation among attributes and choice set size are manipulated and the use of decision aids, decision processes, and choice quality are measured. Among other results, we find that consumers increase their use of simple decision aids in difficult choice environments, such as when attributes are negatively correlated and choice sets are large. Although greater use of a sorting tool improves decision quality when attributes are positively correlated, it leads to performance declines when attributes are negatively correlated or when choice sets are large. In addition, increased use of simple decision aids has the effect of increasing, rather than reducing, information acquisition. Limiting decision aid use through time pressure seems to overcome these negative effects by reducing overreliance on these tools.

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When 1000 MB and 1 GB don't mean the Same Thing: Influence of Attribute Scale on Product Choices

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Consumers are frequently faced with choices between competing brands in a product class. In making such choices consumers often fall victim to decisional biases driven by among other things, the choice context (Simonson and Tversky 1992), order of presentation, and attribute scores (Chernev 2005). This paper examines the influence of the scale used to describe product attributes on consumer preferences. For example, when shopping for a camera does it matter whether the resolution is expressed in pixels (e.g., 8,500 kilopixels) or megapixels (8.5 megapixels)?

The rational view of consumers would predict no difference since the unit in which an attribute is expressed only affects its face value not its true value. However, the concreteness principle suggests that consumers will utilize marketing information in the form it is presented rather than converting into other units (Slovic 1972). Similarly, a study on marketing promotions found that research participants did not convert discounts expressed in non-monetary units (e.g., miles, free umbrella) into monetary units, thus making it difficult to compute the percentage discount (Nunes and Park 2003). Another illustration of such conversion inertia is seen in a study in which Americans tourists to a foreign country where the currency is lower in value than the US dollar tended to underspend but overspent when visiting a country where the currency is higher in value (Raghubir and Srivastava 2002). Accordingly, it is argued that consumers will evaluate alternatives using attribute scores in the form they are provided in.

Consider a binary choice set consisting of brands A and B that differ on only two attributes. Thus, the two alternatives may be defined as A (A_1, A_2) and B (B_1, B_2) where the letters in the parentheses indicate the brand and the subscripts the attribute. If these two brands were asymmetrically dominant then we have, $A_1 > B_1$ and $A_2 < B_2$. Consumers evaluating brands using an attribute-based (rather than attitude-based) comparison process will likely look at the difference in the attribute scores. Formally, this may be stated as

$\text{Preference}(A) = \text{constant} + w f(A_1 - B_1) + (1-w) f(A_2 - B_2)$ where w is a weighting factor that determines the relative importance assigned by the consumer to the first attribute. Now, imagine the first attribute is expressed in smaller units such that $A_1 = 1000a_1$ and $B_1 = 1000b_1$. Then, $\text{Preference}(A) = \text{constant} + w' f(1000a_1 - 1000b_1) + (1-w') f(A_2 - B_2)$ where w' is a new weighting factor. As a result of the smaller units of a_1 compared to A_1 , the former will look more numerous. Similarly the difference $(1000a_1 - 1000b_1)$ will

have a face value much greater than $(A_1 - B_1)$. In such a situation, it is predicted that consumers will overweight the attribute ($w' > w$) with the larger face value difference as a result benefiting the brand that performs better on the attribute expressed in smaller units. For e.g., when choosing between Camera A (8,500 kilopixels, 0.46 lbs) and Camera B (5,300 kilopixels, 0.22lbs), consumers will weight resolution more than when choosing between Camera A' (8.5 megapixels, 0.46 lbs) and Camera B' (5.3 megapixels, 0.22lbs) because the absolute difference in attribute scores for resolution in the first choice set is much greater than the absolute difference in attribute scores for weight. The magnitude of difference of resolution in the first choice set will make the attribute, resolution, more salient and will consequently be seen as being more diagnostic than the other attribute, weight.

Study 1 examined the effect of attribute scale on brand preference. Study participants were asked to choose a camera from a binary set and rate each camera. Both cameras were similar on all but two attributes, resolution and weight. Attribute scale was manipulated through two choice sets that only differed in the scale used to describe the attributes. For the first choice set, resolution was expressed in kilopixels (large face value) and weight in lbs. (small face value). In the second choice set, resolution was expressed in megapixels (small face value) and weight in ounces (large face value). Results indicated that participants were more likely to choose a brand which was dominant on the attribute expressed in smaller units (56% vs. 44%, $p < 0.05$) and rated it higher ($p < 0.1$). To explore the underlying process, participants were asked to rate the importance of the two attributes using a constant sum scale. When the first attribute was expressed in smaller units it was rated as being more important than when expressed in larger units ($p < 0.05$) but for the second attribute difference was in the predicted direction but not significant ($p = 0.11$). Thus, Study 1 established the effect of attribute scale on preference but the proposed process is only partially supported.

Study 2 examined the generalizability of the effect across six products and tested the mechanism underlying the attribute scale effect. As in Study 1, participants were asked to make choices from a binary set that varied on the scale in which attributes were expressed. To test the mechanism outlined above, the comparison process was manipulated as being either attribute-based or attitude-based. Those in the attitude-based comparison group saw the brands from the binary set on different pages and were asked to rate them individually before making a choice. Participants in the attribute-based comparison group saw both brands on the same page and were encouraged to compare the brands by attribute before rating the two brands and making a choice. As expected, the results supported the attribute scale effect for attribute-based comparisons ($p < 0.01$) but not for attitude-based comparisons ($p > 0.1$).

In summary, consumer choices are sensitive to the scale used to describe attributes with preference being in the direction of the dominant brand on the attribute expressed in smaller units. Such scale-dependent choices are contingent upon the comparison process with attribute-based processing magnifying the effect of attribute scale. There is some evidence that this effect is mediated by a reweighting of attribute importance. These results are instructive to retailers who can present their product in a positive light by simply altering the unit in which attributes are expressed.

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The Influence of Number of Scale Units on Consumer Perceptions and Preferences

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The same quantitative information can usually be specified in an alternative metric. Temperature can be specified in Fahrenheit and in Celsius. Prices can be specified in different currencies. When consumers are confronted with information specified in an unfamiliar unit, they may translate it to a familiar one. For instance, while in the US, to figure out the weather forecast, European consumers try to translate temperatures in Fahrenheit to temperatures in the familiar Celsius scale. US consumers engage in the opposite calculation when vacationing Europe.

Often, consumers may not engage in any form of translation, particularly when no preferential target for translation exists. For instance, while a score on 1000 can be translated into a score on a 100, 10, or 50 point scale, there is no particular reason to do so. In fact, the notion that the attribute information could have been specified in an alternative unit may not even enter consumers' minds. In the absence of routine translation to a different unit to evaluate the difference between two attribute levels, consumers may focus on the *number* of scale units and ignore the *type* of unit in which quantitative information is provided (cf. Pelham, Sumarta & Myaskovsky, 1994).

Burson, Larrick, and Lynch (2009) demonstrated that changing the scale in which attribute information provided may indeed affect consumer preferences. In their first study, participants chose between two movie rental plans that allowed them to rent a certain number of movies within a given time period; participants preferred the cheaper plan when the number of movies available for rent appeared on a per week basis (contracted scale). However, they chose the more expensive option when the available movies were presented per year (an expanded scale).

The current paper extends prior research on the unit effect in several respects. First, we document the process underlying preference reversals due to changes in the unit of quantitative information: When the same attribute difference appears in the form of more units, consumers perceive it as larger (Study 1-2). Such changes in perceptions lead to an increased preference for the option that is superior on the focal attribute (study 2). Second, we show that the unit effect occurs because consumers fail to take into account that the same information could have been specified in an alternative unit – reminding them of this fact eliminates the unit effect (study 3). Third, to the best of our knowledge, this paper is the first to show a unit effect in real consumer choices (study 4). Fourth, we show that the unit in which attribute information is provided affects consumers' sensitivity to proportional differences and ratios of attribute levels (study 5).

In Study 1A, participants received information about one attribute for two options either on a scale from 0 to 10 or on a scale from 0 to 1000. In Study 1B, participants received information about the warranty of two dishwashers, either in terms of years or in terms of months. In both studies, an identical objective difference was perceived bigger when expressed on an expanded scale.

In Study 2, participants received information about the price and quality of home cinema systems. While the price was always expressed in Euros, the quality ratings were either expressed on a 10-unit scale or on a 1000-unit scale. Perceived quality differences appear larger on a 1000-unit scale than on a 10-unit scale, resulting in an increased preference for the highest-quality option in the former condition than in the latter condition (supported by mediation analysis).

In Study 3, participants imagined having bought a product online and considered how much they would pay for expedited delivery, either described as 'one month earlier' or as '30 days earlier'. In addition, all participants engaged in a subjective time estimation task before deciding on earlier delivery. For half of the participants, this task reminded them that the time information could have been specified alternatively; for the other half, this was not the case. Our results indicated a higher willingness to spend to have the product delivered 30 days earlier rather than one month earlier. This unit effect was, however, eliminated when the subjective time estimation task reminded participants of the alternative framing of time information.

In Study 4, participants choose between an apple and a Twix bar while they were informed of the energy content of the two options, either in Kilocalories (contracted scale) or in Kilojoules (expanded scale). Expressing the energy content in Kilojoules increased the choice for a healthy snack. This effect was, however, only obtained for participants who usually pay no attention to energy content information.

Study 5 tests the implication of the unit effect that the effect of objective difference on perceived difference should be more pronounced for expanded scales than for contracted scales. Participants had to indicate for 12 systems how much more they would be willing to pay for the perfect home cinema system. The quality of the focal system ranged from 4 on 10 (or 400 on 1000) to 9.5 on 10 (or 950 on 1000), in steps of 0.5 (or 50). The willingness-to-pay was more affected by the quality of the focal system when the quality was expressed on a 1000-unit-scale than when it was expressed on a 10-unit scale.

The current studies show that the number of scale units affects perceived attribute differences and subsequently affects consumer preferences. The unit effect is most consistent with the idea that consumers associate bigger numbers with bigger quantities.

Several managerial implications can be drawn from the unit effect. Brands can increase their perceived superiority by expressing their levels for a superior attribute on a scale that contains more units. Specifically, in comparative advertising, this may be fruitful. In addition, in loyalty programs, a given reward may be perceived more valuable if one needs to accumulate more points to obtain it. For instance, compared to an alarm clock, an MP3-player may seem the more rewarding if a monetary value of 5 USD corresponds to 500 units than when it corresponds to a mere 50 points.

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A Response Latency Investigation of Mental Simulation

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Marketers make a variety of appeals to consumers in their attempts to elicit trial or purchase. They may describe attributes, or ask consumers to imagine the product experience. Marketers may attempt to spell out steps required to make a purchase (e.g. financing options) or highlight positive outcomes of purchase. We examine the capacity of these appeals to induce mental simulation in consumers, if different appeals lead to different simulation strategies, and more specifically, if different strategies are used for events of different affective valence.

Extant research (e.g. Pham and Taylor 1999; Taylor and Schneider 1989; Taylor et al. 1998; Wyer, Hung, and Jiang 2008) suggests that consumers respond to process appeals – e.g. financing options – in a process-oriented manner. Conversely, appeals concerning purchase outcomes are met with outcome-oriented processing. We, much like Thompson, Hamilton, and Petrova (2009), argue that when consumers engage in simulation, it almost always involves both process types, and we explore factors that lead to more or less simulation co-occurrence.

We use a response latency paradigm to investigate mental simulation. If consumers engage in mental simulation, the concepts activated during simulation (e.g. concepts closely related to the product or event) should be more accessible than concepts not activated via simulation (Herr and Page 2004; Lynch and Srull 1982). Moreover, if consumers engage strictly in either process- or outcome-oriented simulation, the concepts activated should differ. Consider a European vacation. Outcome-oriented thinking should activate concepts prototypically European (e.g. Eiffel Tower), whereas process-oriented thinking should activate concepts related to getting to Europe (e.g. financing the trip). The speed with which consumers make judgments related to these concepts, reflects the level of category accessibility and thus likelihood of activation (e.g. Higgins 1996). If simulation occurs, we should see faster response times to related concepts than unrelated concepts, dependent on simulation process. We explore these relationships in two studies.

Study 2 examines spontaneous process- and outcome-based simulation. Participants ($N = 182$) took part in a 3(Event: Positive, Negative, Mundane) x 2(Thoughts: Process vs. Outcome) x 3 Within (Picture Category: Event Related vs. Event Unrelated vs. Process Related) x 2 Within (Judgment: Positive vs. Negative) mixed design experiment. Participants were asked to imagine one of three events (visiting Europe, the grocery store, or the dentist) in a process- or outcome-oriented manner.

Response latencies did not vary as a function of the outcome- or process-oriented thinking instructions, supporting our contention that both types of simulation co-occur. Additionally, a significant event x picture category interaction ($F(4,352) = 21.159; p < .001$) informs our research question. Participants who thought about Europe or grocery shopping responded significantly faster to pictures related to Europe and grocery shopping, respectively, than to unrelated pictures. This is initial evidence that mental simulation did occur and made related concepts accessible. Of additional interest, participants in the dentist condition responded significantly *slower* to dentist-related than unrelated pictures. Their slower responses seem to indicate that participants did not mentally simulate a dentist visit, and in fact, may have inhibited activation of dentist-related categories. Additionally, a comparison of process-related pictures suggests that participants in positive and negative event conditions did engage in greater process-oriented thinking than people in the mundane condition. The negative valence of the dentist visit did not inhibit process-oriented simulation.

Study 2 builds upon the previous study by investigating additional factors. We manipulate the mental capacity for simulation available to participants by either instructing them to write about the event or informing them about the event but asking them to write about another unrelated event. This condition provides a strong test for the occurrence of mental simulation.

Participants ($N = 153$) took part in a 3 Between (Event: Positive, Negative, Mundane) x 2 Between (Thought Instructions: Process vs. Outcome) x 2 Between (Essay Instructions: Focal event (Explicit) vs. Unrelated Event (Implicit)) x 2 Within (Stimuli Category: Focal vs. Filler/Nonfocal) x 6 Within (Stimuli Replicate) x 2 Within (Judgment: Positive vs. Negative) x 3 Within (Judgment Replicate) mixed design.

Analyses revealed higher order interactions: a marginal four-way interaction of the three between-subject variables and Stimuli Category ($F(2, 141) = 2.43, p = .092$), the interpretation of which is assisted by the significant Event x Thought Type x Stimuli

Category interaction ($F(2, 141) = 4.616, p = .015$). The analysis suggests that the effects are driven by slow response times to *Focal* stimuli in the explicit experience conditions, which are significantly slower than responses to focal stimuli in any other negative event condition. This suggests that while responses to focal stimuli are slowed or inhibited in general in negative event conditions, the category is most inhibited when participants were explicitly told to visualize the experience. When examining the mundane event condition, responses did not differ due to any factor. Given the strong effects seen in affective events, we take these null effects as initial support that simulation did not occur in this condition. In the positive event conditions, focal stimuli were responded to more quickly than non-focal stimuli ($F(1, 47) = 83.35, p < .001$), a pattern opposite from negative event conditions. The pattern of means indicate that the focal/non-focal difference is greater for outcome-related thoughts due to non-focal response inhibition, which in turn, is driven by the significantly inhibited responses to both focal and non-focal stimuli in the implicit experience conditions.

We advocate the use of a response latency methodology as an unobtrusive measure for the investigation of mental simulation effects in consumer research. We contribute to the mental simulation literature by investigating consumer events of different affective valence, by comparing process- and outcome-based processing, and by examining the degree to which consumers mentally simulate when cognitively occupied with an alternative task. We demonstrate the facilitative and inhibitive effects of mental simulation in different conditions, differential effects of process- and outcome-based processing for negative and positive events, and propose theoretical mechanisms that motivate mental simulation.

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7.2 Individual Papers: Difficult Decisions

Room: Pine Room

Chair: James Wilkie, Northwestern University

Single Option Aversion: Rule Based Choice Deferral

Daniel Mochon, UC San Diego, USA*

This paper documents an effect labeled ‘Single Option Aversion’ where the choice share of an option increases (relative to deferral) when a competing and attractive option is added to the choice set, contrary to the predictions of rational utility based models of search (Ratchford 1982; Stigler 1961; Weitzman 1979), and recent work in consumer behavior on choice conflict and choice deferral (Dhar 1997; Iyengar and Lepper 2000; Tversky and Shafir 1992). For example more participants may be willing to buy a Sony DVD player when an equally attractive Philips DVD player is added to the choice set than when it is presented alone, a violation of the regularity condition.

It is proposed that this effect occurs because consumers’ choices don’t only depend on the relative attractiveness of the options presented, but also on whether their choices satisfy rules and norms of behavior that can override cost-benefit analyses (Amir and Ariely 2007; Prelec and Herrnstein 1991). Specifically, it is proposed that consumers believe that they should ‘shop around’ and consider multiple options before making a purchase, and will therefore be reluctant to choose a product when they feel they have not satisfied this rule. In other words, one of the reasons people consider multiple options before making a purchase, is that they believe that this is what they should be doing, and will do so even when these options don’t actually inform the choice.

In the first study, participants were presented with a hypothetical decision scenario, where they were asked to imagine that they were buying a DVD player. Participants in the *Sony* condition were shown a Sony DVD player, and were asked whether they would buy that option, or delay the choice to look for more information or more options. Participants in the *Philips* condition saw a similar setup, except with a Philips player. Participants in the *Both* condition were presented with both options and the option to delay the choice. The results indicated that participants were highly reluctant to make a choice when only one option was presented, as only 9% chose to make the purchase in the Sony condition and only 10% in the Philips condition. However, when both were presented as options, the choice shares of both of the alternatives significantly increased to 32% for the Sony player and 34% for the Philips player.

Experiment 2 demonstrates that the effect is not driven by a change in the evaluability of the attributes (Hsee 2000; Hsee et al. 1999). This study followed a similar design to that of Study 1, except that none of the features of the two options were alignable. Therefore participants couldn't learn anything about the attributes of an option when it was presented alongside the other one in the *Both* condition. In spite of the lack of information provided by the additional option, this study replicated the findings of Study 1. Both options were chosen more often in the *Both* condition, than when each was presented alone. These results support the claim that the effect is not driven by the information the additional options provide, but rather by the mere provision of additional options.

Experiment 3 tested directly the proposed theory that the effect is driven by a norm to consider multiple options and 'shop around'. In this study participants were randomly assigned to one of two conditions, where they saw either one attractive option, or two attractive options. After making their choice, participants were asked to rate the extent they felt they had met the rule to shop around. Replicating the previous studies, participants were more likely to choose an option when it was presented alongside another option, than when it was presented alone. More importantly, their beliefs about whether they had acted in accordance with the 'shop around' rule fully mediated this effect.

Experiment 4 sought to provide further evidence for the proposed account by testing another implication of the theory. Prior work has shown that once a situation evokes a rule or norm of behavior, it may get applied to situations beyond where it was first evoked (Reno, Cialdini, and Kallgren 1993). Building on this idea, Experiment 4 tests whether participants in the Single Option Condition, where the rule to shop around has been evoked, will be more likely to defer choice in a subsequent unrelated situation. Such behavior would provide strong support for the rule based theory.

In this study, participants were randomly assigned to one of three conditions. In the *Single Option* condition, participants were presented with one attractive GPS device, and were asked whether they would choose this option or defer the choice. In the *Two Option* condition, participants were presented with two attractive GPS options and were asked whether they would choose one, or defer the choice. In the *Control* condition, participants were not presented with the GPS choice scenario. All participants were then presented with an unrelated choice involving two LCD televisions, and they were asked to indicate whether they would choose one of them, or defer the choice. Consistent with the rule based account of deferral, participants were more likely to defer the LCD choice when the prior GPS choice only had one option than in either the *Two Option* or *Control* conditions, which did not differ from each other.

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Shifting the Basis of Perceived Similarity: Implications for Consumer Inference and Choice

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Similarity is implicated in theories of nearly every fundamental cognitive process, including perceptual grouping (Wertheimer 1923), categorization (Medin and Schaffer 1978) and inductive reasoning (Hummel and Holyoak 1997), to name a few. The decision literature has long recognized that judgments and choices are often affected by the perceived similarity relations between items in a set (e.g. Dhar, Nowlis and Sherman 1999). Similarity, in the choice literature, has often been thought of as a fixed relation, based on the overlap of features and attributes. However, research has shown that judgments of perceived similarity can be highly malleable—that the perceived similarity between any two concepts is highly context-dependent (Medin, Goldstone, & Gentner, 1993). Recently, perceived similarity has been shown to vary systematically with temporal context.

We build on this recent development in the current work, where we show that these systematic shifts in similarity across time (and other contexts) impact the various stages of a consumer's choice process, affecting the inferences people reach about brands and products, the prices they expect and are willing to pay for products, and ultimately for the choices they make. In these studies, we make three distinctions between the kinds of commonalities that will contribute most to perceived “low-level” similarity (and contribute most to similarity in the near future) and those that will contribute most to “high-level” similarity (and contribute most to similarity in the distant future). First, we distinguish between compositional (Love et al., 1999) and thematic similarity (Lin & Murphy, 2001), then between similarity based on the features which determine an alternative's desirability vs. feasibility (Liberman & Trope, 1998), and finally, between commonalities that have to do with abstract commonalities vs. concrete experiences (Day & Bartels, 2008).

In the first three studies, items sharing compositional features (i.e., those which share functional form or parts, such as a blender and a ceiling fan, which both have rotating metal blades) are seen as more similar when considering the near future than in considering the distant future, and the reverse holds for items that are thematically similar (i.e., those that “go together” in a consumption experience, like a blender and a mug, which are jointly used in making and consuming smoothies).

First, we find that manipulating the basis of similarity systematically impacts people's assessments of relative fit for brand extensions. Participants made a series of judgments as to which of two new products would be more successful as brand extensions being introduced (in either a week or a year) for a company which sold a single focal product. For example, would a maker of hot cocoa be more successful in introducing marshmallows (a high-level thematic match) or soup (a low-level compositional match) as a brand extension? We find that, on average, the thematically-matched brand extension is judged to be more similar and therefore more successful in a year, but the compositional matches are judged as more similar and more successful in a week.

In another study, a corresponding process is demonstrated to impact price inferences. When the focal product (a blender) is made to seem more similar to the thematic match (a mug) than to the compositional match (a ceiling fan)—by employing a near future context—people's price expectations for the blender assimilate downward in the direction of the (cheaper) mug. The reverse pattern of similarity relations and price inference holds for the distant future context, yielding a difference in prices estimates between three days (\$48) and one year (\$35). In another study, we generalize this effect of shifting similarity on price inferences to a range of other items and to single-referent contexts.

Next, in two studies we manipulated whether products sharing attribute values that contribute to their perceived desirability (e.g., a bicycle's "ride feel" rating) are seen as more similar or whether products sharing attribute values that contribute to perceived feasibility (e.g., a bicycle's durability rating) are more similar to the focal product. We find the expected shifts in the basis of perceived similarity depending on the time horizon, and show that this in turn systematically impacts the valuations of the products.

Finally, we show that the nature of substitution effects (i.e. the impact of adding a third intermediate alternative to two internship options) depends on whether abstract commonalities or concrete experiences form the basis of similarity judgments. As the basis for similarity shifts with temporal distance, the intermediate option shifts from cannibalizing the more concretely feasible option to cannibalizing the more abstractly desirable option. When this intermediate option is present, the high desirability-low feasibility internship is therefore less likely to be chosen over a feasible but less desirable one in the future than in the present, contrary to previous construal findings.

Across all six studies, we distinguish our findings from the existing literature and rule out alternative accounts. Consistently, we find that shifts in the underlying basis of similarity judgments exert a novel influence on inferences and assessments of key inputs into the decision process and ultimately impact the choices that are made.

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Discomfort Over Difficult Decisions and Pre-Decisional Coherence Shifting

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Research on pre-decisional coherence shifting (Simon, Krawczyk, & Holyoak, 2004; see also pre-decisional distortion; Russo, Meloy, & Medvec, 1998) indicates that changes in the desirability and importance of choice alternative features begins prior to making a choice, rather than following the choice. Proposed mechanisms for why coherence shifting occurs, however, have been limited. Evidence suggests that difficult decisions that are likely to create cognitive dissonance (see Cooper, 2007, for a review) are associated with a heightened arousal state or a feeling of discomfort (Croyle & Cooper, 1983). One method for measuring physiological arousal is the skin conductance response (SCR), which is measured by attaching electrodes to the palm of the hand to detect slight changes in skin perspiration that reflect sympathetic activation. These changes are known to be associated with arousal, such that stronger SCR indicates heightened arousal. A seminal study on cognitive dissonance and skin conductance response (Croyle & Cooper, 1983) indicated that cognitive dissonance increased SCR, and that resolving cognitive dissonance weakened the high arousal state.

This research sought to determine whether feature conflict arising from lacking a clearly dominant option produces a feeling of discomfort, which, in turn, produces a motivating need or desire to reduce this discomfort. We propose that coherence shifting reduces decision conflict, which reduces discomfort. In the present study, we predicted that coherence shifting would resolve feelings of discomfort that are experienced when an individual must make a difficult choice between two competing alternatives, each of which includes both positive and negative attributes. We hypothesized that those individuals who coherence shift more would feel less physiological arousal and would self-report the decision as being less difficult.

To test these hypotheses, 59 university undergraduates participated individually in a computer-based study using an established coherence shift paradigm (Simon et al., 2004). Individuals were informed that they would be participating in a physiological study on decision making, and skin conductance response electrodes were attached to the palm of each participant's non-dominant hand. Participants were randomly assigned to either a control condition, which served to replicate previous evidence of coherence shifting (Simon et al., 2004), or a justification condition, where participants were asked to imagine that eventually they would be justifying their decision to a close other. The justification condition was added to ensure that participants would take the decision task seriously, and also to determine if there were effects of being asked to imagine justifying the decision to a close other (Lerner & Tetlock, 1999). All participants rated the desirability of a number of possible job attributes, and then weighted how important these attributes were in an average decision context. Participants were then shown the attributes of two possible job offers that varied on the dimensions of commute time, salary, office space, and vacation package. After viewing the job offers, participants rated the desirability of the attributes and weighted attribute importance a second time. Participants then indicated their choice leaning. An interim task was given prior to participants making their final choice, followed by a third rating of attribute desirability and weighted importance.

Results indicated that the justification condition did not interact significantly with the final choice or degree of coherence shifting, and condition effects were not included in subsequent analyses on coherence shifting. Participants in the control condition, however, had higher overall SCR across the study blocks ($p < .05$) than those in the imagined justification condition. This plausibly occurred because individuals who are not prompted to justify their choice are less successful at reducing discomfort. Such an explanation is consistent with research on accountability that suggests when people know they will be held accountable for their decisions, they make decisions that they expect will meet the approval of those to whom they are accountable. This process is thought to reduce the cognitive effort necessary for making complex decisions or difficult tradeoffs (see Lerner & Tetlock, 1999, for a review).

In the studies conducted by Simon, et al. (2004), coherence shifting was measured as a change in the attribute desirability and importance ratings at each time point to be consistent with the preferred option that was eventually chosen. We replicated these general findings that individuals shift their desirability and importance ratings toward their final choice leanings. Analyses were conducted using a median split on the degree of coherence shifting, with the dependent variables representing SCR during the maximal decision window of 2000ms–3000ms. Results indicated that participants with high levels of coherence shifting on desirability ratings and importance weightings also had significantly lower SCR ($p < .05$) across study blocks. Coherence shifting on the importance weightings was also negatively correlated with the perceived difficulty of the decision ($r = -.262$, $p = .045$), indicating that those who coherence shifted more perceived the decision as less difficult. Correlations between desirability and importance also increased over time ($p < .05$) such that participants' evaluations on the two dimensions became more consistent with each attribute re-rating. Analyses were next conducted to measure coherence shifting with respect to the specific attributes. These revealed that participants who changed their desirability ratings and importance weights the most also had significantly lower SCR ($p < .05$) across blocks, and that degree of coherence shifting with respect to the job offer attributes correlated significantly with decision difficulty for both the desirability ratings ($r = -.36$, $p = .005$) and the importance weightings ($r = -.53$, $p < .05$). These results were consistent with our predictions that participants who coherence shift more resolve feelings of discomfort and perceived decision difficulty that arise from not having a dominant choice option.

These data provide initial evidence for our proposed model of feature conflict leading to feelings of discomfort, which some individuals resolve through the use of pre-decisional coherence shifting. Additional research is being conducted to further establish the proposed causal sequencing. In the present study, those who coherence shifted less exhibited higher physiological arousal, while those who coherence shifted more exhibited lower physiological arousal. These findings shed light on the basic mechanisms

underlying coherence shifting and have implications for how consumers make decisions in difficult decision contexts when there is no objectively correct choice.

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Evaluation by the Numbers: Impacts of Qualitative Numerical Associations on Consumer Judgment

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Numbers are pervasive in consumer decision making contexts, yet they are not always logically relevant to use in evaluation. Specifically, numbers may serve as an identifier (e.g. stocking number) or contact mechanism (e.g. address) and should, subsequently, not be used in evaluation. A growing body of research, however, suggests that logically irrelevant contextual factors can indeed influence judgment via nonconscious or automatic processes (e.g. Bargh 2002). Is it the case that nominally used numbers can systematically influence evaluation?

If the presence of numbers is to have any detectable effect on evaluative judgments, then the numbers themselves would need to elicit evaluative associations. Previous research has documented several forms of relatively idiosyncratic numerical associations. For example, most people evaluate numbers associated with the self, such as birthday numbers, more positively than other numbers (e.g., Jones et al. 2002). The present research sought to determine whether there are any more pervasive kinds of affective associations with numbers, in particular with specific categories of numbers: odd versus even. We specifically explored whether exposure to even numbers might bring to mind different affective associations than exposure to odd numbers, and if so, how these associations might influence consumer judgment and choice.

The differential evaluative connotations of “even” versus “odd” are immediately evident in non-numerical meanings of these terms. The term “even” connotes qualities such as smooth, fair, and balanced, while “odd” carries connotations such as peculiar, irregular, and strange. Further, mathematical operations involving even numbers tend to be easier for people to solve than those involving odd numbers. It thus seems clear that “even” is a more pleasant concept than “odd.” It is possible that these associations can be activated and incidentally influence evaluations when objects are paired with either even or odd numbers. This was tested and supported in experiments 1 and 2.

Using the Affective Misattribution Procedure, experiment 1 tested and found that subjects evaluated relatively ambiguous Chinese ideograms following even number primes to be significantly more pleasant than those ideograms following odd number primes, $F(1, 265) = 13.45, p < .001$. Likewise, experiment 2 found this effect when subjects evaluated more meaningful stimuli (i.e. hotels). That is, subjects ($N=34$) rated hotels that had even numbered contact information to be more pleasant than hotels with odd numbered contact information, $F(1, 34) = 5.04, p = .03$.

Pleasantness, however, is not the only evaluative dimension. Prior research has illustrated that objects tend to be judged on either affective/hedonic concerns or cognitive/utilitarian concerns (e.g., Batra and Ahtola 1990). In fact, judgment often reflects a tradeoff between these two dimensions, such that stimuli that are considered high on one dimension will often be judged to be low on the other (Fiske et al. 1999). Thus, it may be that odd numbers are considered more positive than even numbers in a cognitive/utilitarian sense.

This notion is supported by ancient Chinese and Greek philosophies that tentatively linked even numbers to affect and odd numbers to cognition. This link was examined and supported within experiment 3.

Using a slightly adapted version of experiment 1, experiment 3 tested if even numbers are more strongly related to positive affective concepts while odd numbers are more strongly related to positive cognitive concept. To this end, subjects were asked to intuit whether Chinese ideograms represented words related to “logic” (e.g. “rational”) or words related to “feelings” (e.g. “emotion”) after having been presented with a number prime. As predicted, subjects ($N = 46$) thought that ideograms following odd number primes were more likely to represent words related to logic, while ideograms after even number primes were more likely to represent words related to feelings, $F(1, 45) = 4.71, p = .03$. This provides some evidence that even and odd numbers are associated with different concepts.

Research indicates that attitudes and preferences are often context dependent (e.g., Kardes 1994) and that the applicability of contextual information plays an important role in how judgments are made (e.g., Higgins 1996). Therefore, based on experiment 3’s findings, we expected that the type of judgment context would moderate which of these associations would be applicable and, subsequently, used in judgment. Specifically, we expected that even numbers would provide a more favorable influence when the judgment context involved predominantly affective/hedonic concerns, while odd numbers would provide a more favorable influence when judgment involved predominantly cognitive/utilitarian concerns.

The role of context on number influence was examined when numbers were incidental (experiment 4) and focal (experiment 5) to judgment. In experiment 4, subjects read about and rated different Science and Fine Arts courses. Course reference numbers (manipulated as either even or odd) were included in course descriptions. Findings supported our predictions. That is, analysis revealed a significant interaction between course type and reference number type, $F(1, 252) = 16.61, p < .001$. Science courses were rated better when paired with odd reference numbers, whereas fine art courses were rated better when paired with even reference numbers.

In experiment 5, subjects evaluated prices of different hedonic (e.g., candy) and utilitarian (e.g., hammer) goods. The prices were manipulated such that half of each type of item ended with an even number whereas the other half ended in an odd number. Analysis revealed a significant interaction between type of product and type of price, $F(1, 67) = 11.56, p < .001$. Supporting our predictions, even prices were considered better for hedonic products, whereas odd prices were considered better for utilitarian products.

This paper contributes to consumer behavior research in a number of ways. First, it provides evidence of a systematic tendency to associate even numbers with positive affective concepts and odd numbers with positive cognitive concepts. Second, it shows that these associations can influence evaluations of objects with which numbers are paired, even when the numbers logically irrelevant to the judgment task. Third, it displays that judgment context moderates whether even or odd numbers will provide a more favorable influence. Finally, it displays that these qualitative associations are strong enough to affect evaluations when numbers are focal to judgment (i.e. prices).

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7.3 Individual Papers: Coping with Ambivalence

Room: Birch Room

Chair: Hao Shen, University of Minnesota

Underneath the Skin of Attitude Ambivalence: Coping with Different Types of Ambivalence

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Sometimes consumers evaluate an attitude object simultaneously positive and negative (Kaplan 1972; Otnes et al. 1997), a phenomenon that is called attitude ambivalence. The ambivalence construct entails two types of reactions; dominant and conflicting reactions. Irrespective of the underlying valence, dominant reactions refer to those thoughts and feelings which are greater in number. Conflicting reactions refer to whichever of the positive or negative reactions are fewer in number (Priester and Petty 1996). In combination these dominant and conflicting reactions produce a state of (subjective) ambivalence. However, Priester and Petty (1996) report that even individuals with quite one-sided reactions (i.e. univalent attitude) can experience feelings of ambivalence. When consumers have no or only a few conflicting reactions of which they are aware and dominant reactions are low in number, people may anticipate that conflicting information exists of which they are unaware. These reactions are referred to as *anticipated conflicting reactions*. The conflicting reactions of which someone is aware are defined as *manifest conflicting reactions* (Priester et al. 2007).

Based on the underlying type of conflicting reactions (manifest versus anticipated), we distinguish two different types of subjective attitudinal ambivalence: *manifest ambivalence* mainly results from conflicting reactions of which one is aware, whereas *anticipated ambivalence* arises when people are unaware of conflicting reactions, but anticipate that conflicting information exists. The objective of this paper is to investigate the influence of the type of attitudinal ambivalence on information processing and its resulting effect on respondents' initial ambivalence.

As ambivalence is generally experienced as aversive and unpleasant (Newby-Clark et al. 2002; Nordgren et al. 2006; Van Harreveld et al. 2009a), it is assumed to induce ambivalent people to scrutinize thoroughly any information that enables them to resolve their ambivalence (Jonas et al., 1997; Nordgren et al. 2006; Van Harreveld et al. 2009b). This information processing strategy is related to earlier work on cognitive dissonance (Maio et al. 1996; Newby-Clark et al. 2002). However, ambivalence may also be resolved through biased information processing (Nordgren et al. 2006; Van Harreveld et al. 2009b). Clark et al. (2008), for example, found that ambivalent individuals increase processing of proattitudinal information and avoid processing of counterattitudinal information. The direction of the bias is thus in line with the initial valence of the attitude (Nordgren et al. 2006; Van Harreveld et al. 2009b).

We expect manifest ambivalent people to produce more negative thoughts compared to anticipated ambivalent or univalent consumers because they are the only ones who have concrete negative information about a product. Anticipated ambivalent consumers are not aware yet of any negative information. Therefore, we expect them to base their thoughts on the few available information they are aware of (which are only positive characteristics in this study), resulting in less negative thinking. Furthermore, we expect that the processing bias will be in line with the initial attitude (Nordgren et al. 2006) as manifest ambivalent people will have less positive attitudes compared to anticipated ambivalent ones.

Study 1 was designed to test the foregoing hypotheses. Univalence or type of ambivalence was manipulated by varying the amount of positive and negative attributes respondents received about an MP3-player, similar as in Priester et al. (2007), and varying the opinion of one's best friend. The extent of information processing was measured by means of a thought-listing procedure (cfr. Nordgren et al. 2006). Thoughts were coded on valence and total number of arguments listed. Results show that manifest and anticipated ambivalent individuals experience the same level of subjective ambivalence and generate the same number of thoughts, but the valence of their thoughts significantly differs. Univalent respondents seem to focus more on positive thoughts than anticipated ambivalent respondents who in turn generate more positive thoughts compared to manifest ambivalent individuals. As predicted, the valence of participants' thoughts corresponds positively with their initial attitude.

These results show that the type of attitudinal ambivalence induces a different type of information processing. The next question is what the motivation and the effect of this differential processing is. More specifically, do people in the anticipated ambivalent condition attempt and/or succeed in resolving their ambivalence level through generating mostly positive thoughts and individuals in the manifest ambivalent condition through mainly negative thoughts?

Study 2 addresses this question. The study is similar to the first one except for two modifications. First, ambivalence aversion was assessed through measuring three negative emotions - irritation, frustration and discontentment- from the consumption emotions set (Richins, 1997). Second, a repeated measure of subjective ambivalence was obtained at the end of the questionnaire. Analyses show that Study 2 replicates the findings of Study 1. In addition, manifest ambivalent respondents report more intense negative emotions than participants in the anticipated condition, who in turn experience more negative emotions than the univalent ones. This higher ambivalence aversion level of manifest ambivalent people seems to motivate them to process information that can resolve their conflict. Results confirm that for manifest ambivalent respondents the biased information processing helps to reduce the discomfort of ambivalence. That is, ratings of subsequent ambivalence were lower than ratings of initial ambivalence. For univalent and anticipated ambivalent people, there was no difference between initial and subsequent ambivalence.

Taken together, our findings shed light on the difference of the underlying structure of feelings of ambivalence and how people cope with these different types of ambivalence in terms of information processing as a means to reduce the aversion caused by the type of ambivalence. It seems that biased (negative) information processing only helps manifest ambivalent people in resolving their subjective ambivalence level. In contrast, anticipated ambivalent people also engage in biased (positive) information processing but it does not reduce their subjective ambivalence level. A possible explanation for this finding may reside in the fact that manifest ambivalence is experienced as more aversive compared to anticipated ambivalence.

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The Fragile Enhancement Effect: Bubble-Like Positivity toward Difficultly Chosen Products

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Following difficult decisions between similarly attractive options, consumers often show increased liking of chosen items, relative to decisions between more easily differentiated options (e.g., Holloway 1967; Sheth 1970; also Brehm 1956). Although others exist, a prevailing explanation is that such choice-enhancement is driven by motivated rationalization, whereby consumers seek to reduce

dissonance aroused by selecting one option while rejecting similarly attractive alternatives. This entails an active and high-involvement process of changing attitudes and behavioral intentions post-hoc to align them with one's choice.

Despite considerable research on the occurrence of post-choice enhancement, little has examined its *stability*. For example, once changed to support a choice, how do difficulty-enhanced attitudes and intentions withstand subsequent attack? If dissonance-driven attitude shifting is indeed active and thoughtful (though biased), then from past research showing strong attitudes fostered by increased thought (Petty, Haugtvedt, & Smith 1995), it could be surmised that post-choice enhancement should be quite durable against persuasive attack. Across four purchase scenario free-choice studies, however, we find such enhancement to be *fragile*, yielding to even minor and superficial attacks. And rather than bolstering attitude durability and persuasion resistance (e.g., Petty et al. 1995), we find that heightened choice-involvement (e.g., via increased decision-stakes) exacerbates this fragile enhancement and vulnerability to attack.

Study 1: Difficulty and Fragile Enhancement. In a hypothetical product-purchasing scenario, participants ranked six digital cameras (based on pictures and image-quality, weight, and price information), and were then presented with two from which to choose. Consistent with typical free-choice paradigm studies, choice-difficulty was manipulated by presenting either the 2nd and 5th ranked options ("Easy-Choice" condition) or the 2nd and 3rd ranked options ("Difficult-Choice" condition). All participants then reported attitudes toward their chosen camera and behavioral intentions such as product recommendation and purchase deferral likelihood. Finally, participants read a single negative customer review of their chosen camera criticizing only peripheral dimensions (e.g., strap-thickness, technical support), and were re-queried about their attitudes and behavioral intentions regarding their chosen camera.

Matching previous research, in the initial post-choice/pre-attack stage we observed more favorable attitudes and intentions toward products chosen in the Difficult-Choice condition. Compared to the Easy-Choice condition, these participants were more satisfied with their camera choice, more likely to recommend it to others, less inclined to defer purchase, and more inclined to re-purchase the same camera if it were lost. However, this enhancement did not afford Difficult-Choice participants any additional resistance to the negative customer review; their attitudes in fact collapsed proportionately *more*. Post-attack, participants across conditions no longer differed in attitudes and intentions, and within-participant comparisons showed greater collapse on these dimensions by Difficult-Choice participants. Moreover, whereas in the Easy-Choice condition pre-attack positivity strongly predicted post-attack resilience, this was not true in the Difficult-Choice condition. In short, we observed a *fragile enhancement effect* in the Difficult-Choice condition: participants enhanced attitudes and intentions post-choice, but in a manner proving highly vulnerable to even minor attack.

Studies 2-3: The Role of Choice-Involvement. Here we replicated fragile enhancement with different stimuli (Study 2: car-stereos; Study 3: customer review attacking central rather than peripheral product-dimensions). These studies also confirmed the arousal of discomfort by difficult decisions, consistent with a dissonance-based motivated rationalization account.

Most notably, we observed greater fragile enhancement with increased choice-involvement, contrary to what past research might imply. Study 2 used participants' reported choice-involvement. Study 3 varied the *decision-stakes* and perceived decision importance to manipulate choice-involvement (confirmed by a manipulation-check). Participants were told either that they were part of a select group whose responses would influence an imminent nationwide product-rollout (High-Stakes), or part of a broad, anonymous sample in which individual responses would have no immediate consequences (Low-Stakes; cf. Chaiken and Maheswaran 1994).

Both studies showed significant interactions of choice-difficulty and choice-involvement on attitudes: both initial enhancement and later collapse following difficult choices were greatest among participants reporting higher involvement and/or in the High-Stakes

condition. Moreover, across studies, Difficult-Choice participants high in involvement collapsed to lower *absolute* post-attack positivity than Easy-Choice participants, rather than simply to the same level (and thus still proportionately more, from higher pre-attack levels), as was the case in Study 1. Thus, following difficult and important decisions, for which it might be most desirable to have strong and defensible positions, attitudes and intentions showed both greater post-choice enhancement and greater vulnerability to later persuasion.

Study 4: Establishing Process. Foremost, Study 4 established mediation of both the initial inflation of positivity following difficult decisions (by more one-sided *positive thinking* about one's choice, captured via a thought-listing protocol) and of subsequent reduced post-attack positivity (by higher reported *uncertainty* about choices made with difficulty).

In addition, we demonstrated fragile enhancement under conditions more reflective of real-world decisions. First, we added a substantial delay following the initial choice but before the attack. This was to allow time for attitudes to perhaps crystallize, as real-world choices might allow. We also introduced real decision-stakes by informing participants that one randomly selected person would actually receive the product (car-stereo) they chose in the task. These modifications increased consistency with temporal and consequential aspects of real-world consumer decisions.

Study 4 further ruled out several attack-based alternative accounts of fragile enhancement (e.g., that the review seemed stronger, harder to repel, or more useful/diagnostic following difficult decisions). The negative review seemed to be perceived similarly across conditions, but had greater impact when attitudes were inflated but uncertain.

Conclusions. Results supported an involving process (driven by motivated one-sided thinking) underlying difficulty-driven choice-enhancement. But contrary to implicit and explicit assumptions from past work, such enhancement proved exceptionally *fragile*, rather than durable, because of concomitant uncertainty regarding choices made with difficulty. Moreover, choice-involvement appears to amplify both initial post-choice enhancement and subsequent post-attack deflation. Thus, factors traditionally believed to foster increased resistance to attack, by inducing thoughtful attitude change, may foster increased *vulnerability* to attack in difficult free-choice decisions. Overall, it appears that at least some forms of dissonance-based attitude change can be easily undone, and that involvement and decision-stakes might have more dynamic roles in conferring attitude and preference strength than is apparent from past research.

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Investigating the Strength Of Affectively and Cognitively Based Attitudes

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Attitude accessibility has been put forward as one of the strength-related dimensions of attitudes, with highly accessible attitudes being stronger than less accessible ones (Fazio, 1995). Several studies exploring the accessibility of affect- compared to cognition-based attitudes tend to support the assumption that affective attitudes are stronger than cognitive ones (Giner-Sorolla, 2001); responses to affective descriptions have been shown to be formed more quickly than responses to cognitive descriptions (Huskinson & Haddock,

2006; Verplanken, Hofstee, & Janssen, 1998), indicating that evaluations based on emotions and feelings are more accessible in memory than evaluations based on cognitive beliefs.

However, accessibility is not the only indicator of attitude strength; so has certainty been identified as an indicator as well (Krosnick et al., 1993; Visser, Bizer & Krosnick, 2006). Yet, attitude certainty has never been examined in relation to the structural base of attitudes.

Therefore, the purpose of this study is to explore how solid the evidence of the attitude-strength advantage of affect-based versus cognition-based attitudes is. A first goal is to investigate whether affect- versus cognition-based attitudes differ in a similar way on different indicators of attitude strength, i.e. on attitude certainty and attitude accessibility (cfr. Studies 1 and 2). A second goal is to explore whether the difference in attitude base holds for different types of persons (cfr. Study 3).

Some of the main antecedents of attitude certainty are made up of cognitive factors such as the amount, clarity and consistency of the information available (Gross, Holtz & Miller, 1995), and the amount of cognitive elaboration of attitude-relevant information (Smith et al., 2008). Since cognitions about an attitude object are believed to be formed based on deliberative and controlled information processing, whereas affective reactions are formed in a relatively automatic manner without much deliberate elaboration (Shiv & Fedorikhin, 1999), a certainty advantage for attitudes based on cognitive beliefs over attitudes based on affective reactions is hypothesized. In other words, we expect the opposite effect of attitude base on attitude certainty than on attitude accessibility.

In a first experiment we manipulated the structural base of participants' attitude toward a fictitious animal by exposing them to either an affective (presented as a person's encounter with the animal, designed to evoke positive emotions) or a cognitive (presented as an excerpt from an encyclopedia of marine life, containing positive information) passage (Fabrigar & Petty, 1999). Following the attitude base manipulation, participants completed the attitude, affect and cognition measures validated by Crites et al. (1994). Next, attitude certainty and accessibility were assessed.

An independent samples t-test showed a significant effect of attitude basis on certainty, $t(121) = .2.647, p < .01$; cognitive attitudes were held with greater certainty ($M=5.02$) than affective attitudes ($M=4.47$), supporting our hypothesis. Contrary to previous research, no accessibility advantage for attitudes based on affective reactions was found ($t(121) = 1,232, p = .222$).

An important limitation of this experiment concerns the manipulation of the attitude base; the perceived objectivity of the animal's description may have created more certainty in readers' evaluation in the cognitive condition, whereas reading other people's subjective response to the animal may have imposed uncertainty to the readers in the affective condition.

To exclude the foregoing as an explanation of the results we obtained, in a second experiment, we measured affective and cognitive attitudes instead of manipulating them. A pretest showed that Fair Trade-chocolate is an attitude object toward which some people primarily hold affective attitudes whereas others primarily have cognitive attitudes toward it. Overall attitude, affect and cognition toward Fair Trade-chocolate were assessed, followed by attitude certainty and accessibility.

Attitude base was found to have a significant effect on certainty, $t(52) = 2.065, p < .05$, with cognitive attitudes ($M=5.59$) being held with more certainty than affective attitudes ($M=5.17$), again supporting our hypothesis. Again, no effects were found for attitude accessibility ($t(52) = .226, p = .822$).

The goal of our third experiment was to investigate the individual difference variables the Need for Cognition (NFC) and the Need for Affect (NFA) as potential moderators of the effect of attitude base on attitude certainty and accessibility. The NFC reflects the tendency for an individual to engage in and enjoy effortful cognitive activity (Cacioppo & Petty, 1982). Since individuals high on NFC tend to think more carefully about information before making an evaluation, we expected the certainty advantage of cognition-over affect-based attitudes to be moderated by the Need for Cognition, in the sense that the effect will be more pronounced for individuals high in NFC. The NFA refers to the general motivation of people to approach or avoid emotion inducing situations, and is associated with the degree to which individuals' attitudes are guided by affective information (Huskinson & Haddock, 2004). As such, we expected the accessibility advantage of affective over cognitive attitudes to be moderated by the Need for Affect, in the sense that this effect will occur for individuals high in NFA but will be reversed for individuals low in NFA.

We again manipulated the structural base of participants' attitude toward a fictitious animal by exposing them to either an affective or a cognitive passage. However, both passages were presented as an excerpt from the same encyclopedia, thereby eliminating differences in perceived objectivity of the description. Each description included the same non-valenced information and three positive affective or cognitive expressions (van den Berg et al., 2005). Following the attitude base manipulation, participants were asked to complete measures of attitude, affect and cognition. Next, attitude certainty and accessibility were assessed, and participants were asked to fill out the NFA- and NFC-questionnaire.

A marginally significant interaction-effect on attitude certainty was revealed, $F(1,22) = 3.739, p = .066$. Pairwise comparisons indicated a marginally significant tendency for individuals low in NFC to be less certain of a cognitive ($M=3.16$) compared to an affective ($M=4.29$) attitude, $F(1,22) = 3.065, p = .094$, and a non-significant tendency for individuals high in NFC to be more certain of a cognitive ($M=4.25$) compared to an affective ($M=3.54$) attitude. A significant interaction effect was found for attitude accessibility, $F(1,21) = 11.271, p < .01$; individuals low in NFA responded significantly slower to affective ($M=19.00$) compared to cognitive ($M=9.47$) attitudes, ($F(1,21) = 4.367, p < .05$); while individuals high in NFA responded significantly faster to affective ($M=8.93$) compared to cognitive ($M=22.43$) attitudes, ($F(1,21) = 6.940, p < .05$).

Based on these results, we can conclude that, contrary to previous research where affectively based attitudes seemingly are stronger when accessibility was used as a strength measure, cognitively based attitudes appear to be stronger in terms of certainty. Further, two individual difference personality variables, NFC and NFA, were identified as moderators of the effect of attitude base on attitude strength. In view of the importance of strong attitudes for behavioral prediction purposes, gathering such insights into the causes of attitude strength and more information about certain situational and personal moderating variables seems warranted in the realm of consumer behavior.

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Just Do It: Motor Fluency Effects on Product Evaluations

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The literature in consumer behavior has a long tradition of accounting for past experiences on current and future behavior. For instance, research on consumer expertise (Rao and Monroe 1988) recognizes the role of prior knowledge on product evaluation and

choice. More recently, Dhar, Huber and Khan (2007) demonstrated the “shopping momentum effect” according to which an initial purchase enhances the probability of a subsequent purchase, even if the subsequently purchased product is unrelated to the originally purchased good.

We consider the impact of the repetition of a recently performed *action or procedure* during a subsequent product evaluation task. For instance, does the acquisition of visual information from top to bottom in an initial task yield predictable differences in product evaluations when the evaluative information is provided in a manner that forces the individual to read from top to bottom? Or, if an individual views a slow-moving object in an initial task, does that experience produce differences in the subsequent evaluation of a product when the evaluative information is conveyed slowly? Such phenomena are ubiquitous, whether it be the manner in which a print ad is read, and subsequent product information is presented; the pace of background music during a television commercial and the pace of accompanying music in the retail environment; or the speed with which animation appears in web-based advertising, and related information appears at point-of-sale. Whether and how such prior motor behavior impacts evaluation if the evaluative process requires the employment of a similar motor procedure is a phenomenon that is likely of both theoretical and practical interest.

We draw from procedural knowledge theory (Smith 1990), according to which, practicing a procedure might increase the ease with which people apply that procedure in a later situation (Smith, Branscombe and Bormann 1988; Kolers 1976). If consumers happen to re-use a previously employed motor procedure while processing information about a product, the experience of ease or “fluency” associated with the re-use of the procedure could be misattributed to the product, thus enhancing product evaluations (Novemsky et al. 2007; Kim, Rao and Lee 2009; Thompson and Hamilton 2006).

Study 1 provides evidence supportive of our assumptions. Participants were told that the study was designed to assess consumers’ ability to search for information on subway maps. On this pretense, they were sequentially exposed to four subway maps. In each map, one subway station (A) appeared at the top of the map and another station (B) appeared at the bottom. Participants were asked to count the number of stations they would encounter if they traveled from A to B, or from B to A. This task induced the directional orientation prime. Participants were forced to read the map from top to bottom or from bottom to top. After participants completed this task, they were asked to evaluate a coffee cup that either descended to the middle of their computer screen, or ascended to the middle of the screen, depending on condition. We found that participants evaluated the coffee cup more favorably if the orientation of reading maps and the visual orientation of the appearance of the product were consistent. The effect was mediated by the fluency that participants experienced while examining the product.

Study 2 generalized this motor fluency effect using an alternative motor procedure, namely, speed. Participants were asked to remember four numbers that were displayed on a computer screen. Each number moved from the left to the middle of the screen either very rapidly or slowly. After participants had memorized the numbers, they were given a filler task in which they were asked to evaluate a product (a chair) as a pretest for future experiments. To this end, participants were exposed to a picture of a chair that either moved from the left to the middle of the screen very rapidly or slowly. We found that participants evaluated the product more favorably when the speed of presenting a product was consistent (vs. inconsistent) with the speed that was primed in the previous situation. The effect was mediated by the fluency that participants experienced while examining the product.

Study 3 was interested in whether this fluency driven effect occurred for audio stimuli as well. Participants were told that we were interested in whether shadowing is a useful way to improve English speaking and pronunciation. On this pretense, participants were asked to shadow a speech that was fast or slow paced. After completing the priming task, the experimenter passed out an ostensibly unrelated questionnaire regarding product evaluations. Participants were also told that because consumers are usually exposed to

music when they go shopping in a store, background music would be played while they completed the product evaluation task. In one condition, the music was played at a quick pace, while in the other condition it was played at a slow pace. Again we found that participants evaluated products more favorably if the speed of the music was consistent (vs. inconsistent) with the speed of speech that participants had shadowed previously.

People's reaction toward a product could not only be influenced by the motor procedure that had been employed previously, but also by the feelings that are elicited by a previous experience. For example, if consumers experienced negative affect while employing a particular procedure, reemploying that procedure during another, product evaluation task, could yield the transfer of negative affect to the product being evaluated. Study 4 examined this possibility. The procedure employed in this study was similar to that used in study 2 except that participants were asked to remember names of four disgusting insects instead of numbers. We found that participants evaluated a product more *negatively* when the speed of presenting the product was consistent (vs. inconsistent) with the speed of presenting the pictures of disgusting insects in a previous situation, suggesting that negative feelings that were induced by seeing the insects were more likely to transfer to the product in *consistent* rather than *inconsistent* conditions.

Our findings suggest that experiences of fluency can occur not only due to similarity in the thought processes employed or the information examined, but also due to the physical or motor procedures employed. This research therefore contributes to the area of processing fluency and enhances the understanding of the effect of motor procedure on consumer evaluation.

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7.4 Symposium: Consequences of Construal Mindsets: Goals, Regret, and Fluency

Room: Oak Room

Chair: Claire Tsai, University of Toronto, Canada

Discussion Leader: Frank Kardes, University of Cincinnati

Framing Goals to Influence Personal Savings: The Role of Specificity and Construal Level

Gülden Ülkümen, University of Southern California, USA*

Amar Cheema, University of Virginia, USA

Although the importance of saving is indisputable, left to themselves, numerous studies have shown that consumers don't save enough. Is it possible to influence consumers' savings simply by changing the way they think about their goals? In this research, we explore whether and how goal framing influences saving success. Imagine a consumer who wants to save money for an upcoming trip. Consumers can decide to save some money without specifying an amount (e.g., "I need to save as much as I can"), therefore setting a non-specific goal. Alternatively, consumers can specify the amount they need to save (e.g., "I need to save \$500"), thereby setting a specific goal. A second factor that influences how a consumers think about saving goals is the level at which this goal is represented. In particular, consumers can either focus on why to save (high-level construal), or how to save (low-level construal; Trope and Liberman 2003).

We study the how these two factors, namely, goal specificity, and the level of construal together influence saving-related outcomes, such as anticipated success, and goal achievement as measured by actual savings. While most studies suggest that increased goal specificity positively affects goal attainment (e.g., Wright and Kacmar 1994), a few studies suggest that specific goals may hurt performance, relative to non-specific goals (Kirschenbaum, Humphrey, and Malett 1981). To reconcile these findings, we propose that specifying an amount can increase savings when consumers focus on the why aspects, the desirability of goals, whereas the same specific goal can decrease savings when consumers focus on the how aspects, the feasibility of goals. We attribute the interaction of goal saving and construal level to the differential weight placed on the meaning and difficulty of the saving goal. At high level of construal the individual is focused on why a goal is important, specificity of a saving goal can be interpreted as a signal of its importance. Accordingly, among high-level construers, specific (vs. non-specific) goals should lead to greater anticipated success, commitment, and consequently, higher amount of savings. In contrast, specific goals may be perceived as more difficult when the act is construed at a low level. As low-level construers are focused more on how to achieve a goal, specific (vs. non-specific) goals may appear rigid and discouraging, leading to lower commitment and disengagement, and thus, lower amount of actual savings.

Across four studies, to manipulate goal specificity we first ask participants to consider a saving occasion, and then to either indicate the dollar amount they would like to save for this occasion (specific), or we don't prompt them to specify the amount (non-specific). We either manipulate construal level via elaboration instructions (studies 1 and 2), or we measure chronic individual differences in construal (studies 3 and 4).

In study 1 we find that consumers who specify how much to save (vs. those who do not specify an amount) anticipate higher saving success if they construe this saving goal at a high level. In contrast, consumers who do not specify an amount (vs. those who specify how much to save) anticipate higher success if the saving goal is construed at a low level. Illustrating the process, we show that high-level construers (who focus on why to save) perceive specific goals to be more important than non-specific goals, and therefore anticipate higher success. In contrast, specific goals can be perceived to be more difficult than non-specific goals, which could be discouraging for low-level construers (who focus on how to save). Importantly, we find that the level at which a saving goal is construed, and its specificity influence not only anticipated success, but also actual success in saving. By examining consumers' actual savings over one month, study 3 shows that the actual amount consumers save can be influenced simply by changing the way they think about their saving goal. In study 4 we identify a simple intervention can be used to influence consumers' savings, and test its effectiveness.

Understanding what factors that influence consumer savings is of great interest to government agencies, financial services firms, and banks, as well as consumers themselves. Consumers must save the right amount to ensure a comfortable future. Governments encourage changes to saving rates to promote either economic stability or growth. Accordingly, policy makers could benefit from a simple tool which could be used to influence consumer savings.

We show that merely by changing the way consumers think about their saving goals we can influence the amount they save. These results contribute to the literature on goal attainment by explaining when and how goal specificity impacts goal attainment, and by identifying the underlying process. Our findings show the effectiveness of an intervention to manipulate savings through simple manipulations.

When Does Anticipating Regret Help Consumer Decision Making and When Does it Hurt?

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Debra Thompson, Georgetown University, USA

Avoiding regret is an important motivator in consumer decision making (Zeelenberg and Pieters 2007). For example, asking consumers to anticipate the regret they would experience if they made the wrong decision increases their willingness to pay more for a higher-priced brand of video player (Simonson 1992). It is not clear, though, whether considering anticipated regret helps consumers make more satisfactory purchase decisions because anticipated regret is often not a very accurate predictor of experienced regret.

In this paper, we focus on differences in the regret emotions that are anticipated and experienced. Research has shown that consumption experiences themselves can change the way consumers think about products because consumption experiences induce a more concrete mental construal than indirect experiences such as reading product descriptions (Hamilton and Thompson 2007). One key difference between anticipated regret and experienced regret is that anticipated regret is considered in prospect, while experienced regret is considered during or shortly after an experience. Construal level theory (Trope and Liberman 2000) proposes that the greater an individual's psychological distance from target events, the more abstractly these events will be represented. Thus, anticipated regret, which is considered in prospect, should feel more psychologically distant, evoking more abstract thought than experienced regret, which should evoke more concrete thought.

Notably, previous research has distinguished between two different kinds of regret: "hot" regret and "cold" or "wistful" regret (Gilovich, Medvec and Kahneman 1998; Kahneman 1995). Kahneman (1995) proposed that hot regret is a more short-term form of regret, which focuses on direct reactions to the outcome. In contrast, wistful regret is a more long-term form of regret, which focuses on counterfactual alternatives to the outcome. Using construal theory to link these two streams of research together, we propose that anticipated regret is more similar to cold regret, while experienced regret is more similar to hot regret.

In our research, we focus on this construal-based explanation for the gap between anticipated and experienced regret, and we conducted a series of three studies to examine the size of this gap and its effect on consumer decision making. In our first study, participants evaluated two different digital video players, an easy-to-use basic model (high feasibility) and an advanced model with three times the number of features (high desirability). After choosing one of them, they answered several items designed to measure anticipated regret. Next, participants used their chosen product and answered items designed to measure experienced regret. Based on earlier research indicating that consumers tend to focus on the desirability of products prior to use but on the feasibility of products during consumption (Thompson, Hamilton and Rust 2005), we expected that participants would anticipate more regret when they chose the basic model, but actually experience more regret when they chose the advanced model.

As we had predicted, those who chose the basic model were more likely to anticipate regretting their choices than those who chose the advanced model. However, those who chose the advanced model were significantly more likely to regret their choices after using the product than those who chose the basic model. Notably, anticipated regret and experienced regret were not even significantly correlated ($r = .09, p > .27$).

In our second study, we replicated this misprediction of experienced regret in a new domain by having participants choose either a large or small set of art posters from which they would select their favorite poster for a raffle. We also measured emotions specific to hot regret and cold regret as well as anticipated and experienced regret.

In our third study, our goal was to see whether we could help participants make better choices by instructing participants to consider either hot regret or cold regret before choosing a product. We expected that those who considered hot regret emotions such as irritation and frustration before making their choice would be more likely to choose the basic product, experiencing more satisfaction and less regret after using the product. In contrast, those who considered cold regret emotions such as disappointment and longing for missed opportunities before choice were expected to be more likely to choose the advanced product.

As predicted, those who considered hot regret emotions prior to choice were more likely to prefer the basic player than those who considered cold regret emotions prior to choice. Notably, after using their chosen products, those in the hot regret condition evaluated them more favorably, indicated that they would be more likely to recommend it to others, and were marginally more satisfied with their choices than those in the cold regret condition. Considering hot regret before choosing between a basic and an advanced product seems to attenuate the “feature fatigue” effect (Thompson et al. 2005) demonstrated in previous research.

Taken together, these studies suggest that anticipated and experienced great differ not only quantitatively but also qualitatively. Because direct experiences with products shift consumers’ construal levels from abstract to concrete, anticipating “hot” regret emotions can increase consumption satisfaction relative to anticipating “cold” regret emotions.

When Do Feelings of Fluency Matter? How Abstract and Concrete Thinking Influence Fluency Effects

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People make judgments based not only on content of information but also on feelings experienced during judgment. In fact, a substantial body of psychological research has shown that feelings can exert powerful influences on judgments (Pham 2009; Schwarz 2004). The present article examines ways in which people respond to an important class of feelings—fluency—and finds that a general mindset can reliably change the effects of fluency. That is, the activation of abstract thinking can reduce the influence of feelings on judgment, thereby attenuating and even reversing effects of fluency. It is well established that people like a fluent stimulus more than a less fluent one. We hypothesize and demonstrate that thinking abstractly, rather than concretely, can eliminate and even reverse this familiar positive fluency effect.

Processing fluency is usually unrelated or negatively correlated with normative criteria such as amount of information (Oppenheimer 2005; Schwarz 2004). One approach commonly used to mitigate undesirable consequences of reliance on fluency is to prevent individuals from attributing feelings of ease to target by revealing their cause (e.g., text font). However, this prescription is challenging to implement beyond laboratory settings because the cause of fluency is often opaque and even disguised in the real world. This article therefore presents a more general method to mitigate the effect of such incidental cognitive feelings: by activating abstract-thinking rather than concrete-thinking mindsets.

Abstract thinking evokes schematic processing and distinguishes central decision inputs from less important, contextual inputs (Trope and Liberman 2003; van Osselaer 2008). Given that people generally consider their subjective experiences less important than objective information (Hsee and Tsai 2008), processing fluency is likely to be considered less relevant to judgments, and therefore omitted during the process of abstraction. In contrast, concrete thinking directs attention to specific details and makes no

distinction between information content and subjective feelings. Thus under conditions of concrete thinking, feelings of ease are likely to enhance evaluations.

We test this hypothesis in study 1 with a 2 (clear vs. blurry ad) x 2 (abstract vs. concrete thinking) between-subjects design. Participants first completed a priming task that induces either abstract- or concrete-thinking mindset. They then proceeded to the ostensibly unrelated main task and reviewed either a clear or blurry advertisement for a fabricated brand of chocolate truffles. As predicted, concrete thinking produced the traditional fluency effect such that participants liked the chocolate more after viewing the easy-to-process advertisement. However, abstract thinking eliminated the fluency effect on liking.

In study 2, we further demonstrate the moderating effect of abstract thinking by asking participants to generate a few or many supporting arguments for judgment and using a behavioral measure (donation to charity). Those asked to list eight reasons not only experienced more difficulty but also generated more information. Because information content carries greater sway for abstract thinkers than it does for concrete thinkers, we propose and find that in the abstract condition, donation increased with information content, despite processing difficulty. However, difficulty of generating reasons decreased donation in the concrete condition.

A key premise for our hypothesis is that abstract thinking omits subjective experiences because they are considered less relevant to judgment. In contrast, concrete thinking does not omit these feelings and so they are unconsciously misattributed to the judgment variable itself. We test this assumption in study 3 and found that when feelings signaled value, fluency increased liking in the abstract condition. However, highlighting the importance of feeling eliminated the fluency effect in the concrete condition.

Unlike judgment-specific causes of feelings, abstract and concrete thinking can operate at the level of mindset, independent of judgment target, and thus produce a more general effect and can be more easily implemented beyond laboratory settings. Given that affective and cognitive feelings share many commonalities (Schwarz and Clore 1996, 2007), our findings have important implications on affective feelings and even bodily emotions.

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7.5 Individual Papers: Status, Power, and Financial Decisions

Room: Spruce Room

Chair: Brent McFerran, University of Michigan

The Ironic Effects of Credit Card Balances and Credit Limits on Consumer Spending

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Lauren Block, Baruch College, USA

Eric Eisenstein, Temple University, USA

During the current economic crisis, consumers are facing sobering amounts of debt. In 2008, the average outstanding credit card balance per household was \$10,679 (Nilson Report 2009) and approximately 13.9% of consumers' disposable income went to service credit card debt (U.S. Congress' Joint Economic Committee 2009). Additionally, the rising job losses are leading even those with good credit histories to incur unbearable amounts of credit card debt (Andrews 2009).

Despite the staggering numbers, there is virtually no consumer research on how carrying an outstanding credit card balance affects consumer spending. Much of the previous research has focused on how credit cards increase spending compared to cash or checks. However, consumers have a strong aversion to credit card debt (Prelec and Loewenstein 1998). Therefore, while credit cards may stimulate spending, their overuse is something that consumers seek to avoid. Consequently, anything that decreases consumers' focus on credit card debt avoidance may increase their spending. In this paper, we argue that carrying outstanding credit card balances function as just such a mechanism and increases consumer spending

Previous research has documented a tendency by individuals to abandon a goal after failure (Cochran and Tesser 1996), particularly when goal represents a behavior that a person is trying to avoid. Because consumers try to avoid card debt, we suggest that carrying a balance makes consumers less focused on incurring credit card debt and subsequently increases spending. Moreover, we suggest this effect is strongest for people with high self-control. Because credit cards increase spending, and those with high self-control strategically avoid using payment mechanisms that increase spending (Raghubir and Srivastava 2009), prior to a balance being incurred, consumers with high self-control should be more focused on avoiding credit card debt. Once a balance has been incurred, it signals goal failure, which increases their spending.

However, research suggests that the more resources individuals have available for consumption, the weaker the proportional impact of any one unit of consumption on one's overall resources (Morewedge et al. 2007). This suggests that the perceived magnitude of the failure from incurring a credit card balance may depend less on the actual value of the balance than on the proportional impact of the balance to the resources that are available on the credit card (i.e., the available credit). This also suggests another ironic effect: that the influence of an outstanding balance can be attenuated by increasing the available credit on the credit card, while holding the value of the balance constant. Thus, once a balance has been incurred, we propose that increasing the available credit should reduce the perceived magnitude of the failure and actually lower consumer spending.

A series of studies were conducted to test our predictions. In study 1a, staff and undergraduates at a small private college participated in an auction for an iPad computer involving real money. Participants were instructed that the auction was a single bid silent auction where the highest bidder would then purchase the iPad at the value of their winning bid. They were further instructed that the winning bidder would be notified by email to complete the purchase online using a credit card. Since only credit cards were accepted as a form of payment, it ensured that the results would be driven primarily by respondents' credit card spending behavior. As expected, those with high self-control submitted higher bids when they had an outstanding balance on their credit card compared to those that did not have an outstanding balance. Those with low self-control submitted slightly lower bids when they carried an outstanding balance on their credit card compared to those that did not carry a balance. Study 1b replicates the results of study 1a by having participants choose between two versions of an iPhone to purchase. Those with high self-control were more likely to purchase the expensive version of the iPhone when they carried a balance compared to when they had no balance.

Study 2 replicates the basic findings of study 1 using a different product category (sunglasses) and provides evidence that the magnitude of the failure moderates the effect of a credit card balance on preference. Specifically, it shows that increasing the available credit reduces the magnitude of the failure and lowers preference for an expensive pair of sunglasses for high self-control individuals. Study 3 provides process level support for the effects found in Study 2; specifically, we demonstrate that increasing the available credit reduces consumers' spending by making them more focused on debt avoidance.

Study 4 replicates the findings of previous studies while ruling out different inferences about wealth as an alternative explanation. Specifically, we provided respondents with two credit cards (a high available credit card and a low available credit card), but kept the

total available credit and the outstanding balance between the two cards the same; we only manipulated which card carried the balance. We find that consumer spending depends on available credit on the credit card that carried the balance. Specifically, when the balance is carried on a card with low available credit, it increases the likelihood of purchasing a luxury product compared to when it was carried on the card with high available credit.

In this era of economic crisis and pending credit card regulation changes, it is important to better understand the factors that influence consumer spending and conspicuous consumption. Findings from the body of literature in this domain are often integrated into policy guidelines to aid and educate consumers to help them spend wisely and avoid debt. Future research that informs such practical suggestions as well as industry or regulatory guidance is encouraged.

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Embodied Cognition, Power, and Culture

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Embodied cognition refers to the way one's thoughts become associated with and influenced by one's physical environment (e.g., Wilson, 2002). Recent years have witnessed a growing interest among psychologists in how embodied cognitions impact judgments and behaviors, but less is known about the impact of these processes on marketplace behaviors. Our focus is on understanding how cultural differences moderate the influence of embodied cognitions in consumer settings. We hypothesized that *movement through vertical space triggers consumers' culturally specific power goals*. Once triggered, these goals may influence consumers' interest in marketers' offerings. However, because power means different things to people of different cultures and ethnicities (Torelli & Shavitt, in press), *embodied experiences that trigger power goals will have different effects for consumers of different cultural orientations or groups*. Specifically, we examine 1) how actual or vicarious movement through vertical space influences consumers' power motivations, and 2) how the consumer manifestations of these motives are moderated by cultural factors.

To date, little is known about embodied associations with power. Our everyday language contains many metaphorical expressions that suggest that power is deeply embodied in vertical space (such as "falling" as a metaphor for failing and "climbing the ladder" meaning success). Indeed, research in perceptual psychology has found that people automatically associate power with "up" and a lack of power with "down" (Schubert, 2005).

Although this association may be widespread, research suggests that what power actually means to people varies by culture (Torelli & Shavitt, in press; Triandis & Gelfand, 1998). People or cultural groups who tend to have a *vertical individualistic* orientation (VI; e.g., U.S. participants) strive to become distinguished and to acquire status via competition. For them, power tends to be about maintaining and promoting their individual status. In contrast, people or cultural groups who tend to have a *horizontal collectivist* (HC; e.g., Latin Americans) orientation emphasize common goals with others, sociability, and interdependence. For them, power is about being able to help others.

We predicted that vertical movement will be associated with power regardless of cultural orientation; for example, downward movement is associated with losing power, and is therefore experienced as power threat. However, how people respond to such

embodied experiences will vary by culture: Vertical individualists will be more motivated to acquire status items, as a compensatory reaction to power threat (similar to previous findings by Rucker & Galinsky, 2008), whereas horizontal collectivists will be more motivated to help others.

Study 1 examined the basic premise that moving downward (vs. upward) will increase power concerns because "down" (vs. "up") activates low (vs. high) power. We asked participants ($N = 83$) to imagine arriving for a job interview and, in the context of this scenario they were shown a video clip of an escalator going either upward or downward. Then, their implicit power motivation was measured using a validated instrument (the multi-motive grid; Sokolowski, Schmalt, Langens, & Puca, 2000). Compensatory reactions to power threat (from the down escalator) were measured by showing pictures of high-status products (e.g., briefcases, silk ties) and neutral products (e.g., sofas), and measuring participants' willingness to pay for each of them (see Rucker & Galinsky, 2008). Cultural orientation was measured using an established 16-item scale (Triandis & Gelfand, 1998).

A main effect of escalator direction emerged on the implicit motivation to regain power. Regardless of cultural orientation, participants showed greater motivation to regain power when they watched the escalator moving downward (vs. upward), $\beta = .28, p < .05$. Furthermore, the impact of power motives on the desire to acquire high-status goods was moderated by one's VI level, $\beta = .32, p < .05$. Specifically, people high in VI orientation, who therefore tend to view power as a way of maintaining personal status, responded to observing downward movement by increasing their willingness to pay for status goods. This interaction was unique to VI orientation and was not found with HC orientation, $\beta = -.10, ns$, or on desire to acquire neutral products, $\beta = -.08, ns$. Thus, embodied cognitions involving power interacted with the consumer's cultural orientation to channel their responses.

Study 2 was conducted to examine whether people high in HC compensate for power loss induced by downward movement by increasing their willingness help the needy. Another goal of Study 2 was to test the effect of vertical movement in a more direct way. A field study was conducted with 34 college students in a campus building with a large central staircase. Instead of showing a video clip of an escalator, participants were approached immediately after coming down the staircase (DOWN condition) or walking down a hallway (HORIZONTAL/CONTROL condition). They were provided with a short description of a charity and asked to rate their perceived likelihood of donation and felt responsibility to donate to the charity. Cultural orientation was measured as in Study 1.

We found that people high (vs. low) in HC showed greater responsibility and willingness to donate money to the charity, regardless of their movement direction, $\beta = 1.25, p < .05$. More importantly, we found that responses to the loss of power resulting from downward movement was moderated by one's HC level, $\beta = -1.12, p < .01$. In particular, those high in HC showed greater felt responsibility and willingness to donate after moving downward (vs. horizontally), $\beta = -.46, p < .05$. The impact of power loss on donation was not moderated by one's VI level, $\beta = .18, ns$.

Although the interaction between movement direction and VI orientation on willingness to pay for status goods did not emerge in this field study, $\beta = .66, ns$, it should be noted that the comparison here was between horizontal (rather than upward) and downward movements. Data collection to expand this study and address this issue is ongoing.

Taken together, the two studies suggest that, although downward movement induces a sense of powerlessness regardless of cultural orientation, compensatory reactions to such power threat are determined by one's cultural orientation. In other words, embodied responses regarding power appear to be culturally bound.

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The Interpersonal Hot Hand and Gambler's fallacies: How similarity with the previous winners affects the attractiveness of a promotional lottery

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When they advertise, promotional and state lotteries commonly feature previous winners, using both photographs and personal information about them, such as selected demographic characteristics. Relying on evidence from the first three experiments, we show that potential participants estimate higher odds of winning the next drawing when they are similar to the previous winners than when they are dissimilar. We propose this is due to their attribution of the winning outcome to an internal human cause, and we name this effect Interpersonal Hot Hand. In the last two experiments, we show that the effect can be reversed into Interpersonal Gambler's fallacy when people attribute winning to an external cause.

Most lotteries mention the prizes to be won but provide little or no information about the potential number of entrants, which means participants do not know their probability of winning and cannot estimate it objectively. The similarity with the showcased winner constitutes a salient heuristic cue on which people may rely to gauge their odds of winning the next drawing and their participation intention.

However the literature on biases in judgments of sequential events is split. The Hot Hand Fallacy (Gilovich et al 1985) leads to expect a positive effect of similarity with the last winners on the estimated probability of winning the next drawing, while the Gambler's Fallacy (Tversky and Kahneman 1971) leads to expect a negative effect. Recent research suggests the hot hand phenomenon occurs when people attribute the sequence of outcomes to a human cause while the gambler's fallacy instead occurs when people attribute the sequence of outcomes to an inanimate cause, as in a casino (Ayton and Fischer 2004; Burns and Corpus 2004; Roney and Trick 2009). In their review about judging sequences of binary events, Oskarsson and colleagues (2009) suggest that the extent to which randomness, intentionality, and control are perceived by the observer as descriptive of the sequence-generating mechanism is strongly indicative of the observers' prediction of positive vs. negative recency. By showcasing "lucky" previous winners and their personal information in promotional material, lotteries focus attention on a potential human cause, and downplay the inanimate random character of the lottery by not mentioning the probability of winning nor the technical details of the random drawing. Therefore, we propose that consumers should estimate their chances of winning to be higher when they are similar to these "lucky" previous winners (Interpersonal Hot Hand effect). In contrast, if this spontaneous attribution is counteracted by focusing attention on a salient inanimate cause, consumers may express higher participation likelihood when they are dissimilar to the previous winners (Interpersonal Gambler's Fallacy).

In study 1a, the participants imagined that a social network website for students regularly organized a random drawing among its members. The scenario then featured the winners of the two previous drawings, who were either two women or two men depending on the experimental condition. Participants estimated marginally higher chances of winning the next drawing when the previous two winners were of the same gender rather than the opposite gender ($N=50$ $t(48)=1.817$; $p=.075$).

Study 1b replicated the Interpersonal Hot Hand effect with educational background as a similarity manipulation. The procedure was identical to that of Study 1A, except for the descriptions of the past winners. In the similar condition, the two previous winners studied in business schools and thus had the same major as the respondents. In the dissimilar condition, they respectively majored in arts and

physiotherapy. The respondents again believed that they had higher chances to win the next drawing when the two previous winners had the same major ($N=62$, $t(60) = 2.643$; $p<.05$).

A field experiment (Study 1c) corroborated these results with real behaviors and a diversified population. Similarity was manipulated within an actual promotional email inviting recipients to enter a sweepstakes with an iPad at stake. The participation rate of email recipients was at least twice higher when they shared the same first name (1%), or the same region (.6%) as the previous winner showcased in the email compared to the dissimilar recipients' participation rate (respectively, .4%, $N=5961$ and .3%, $N=5962$). If the Interpersonal Hot Hand fallacy occurs because featuring previous winners makes a human cause salient, then it should reverse when an inanimate, external source is made salient. In study 2, the scenario describing the sweepstake mentioned that prize winning numbers were randomly drawn before the sweepstakes starts, and that a roulette wheel generated the number assigned to each participant. Hence the description made salient an inanimate cause for winning. Similarity with the two previous winners was manipulated with gender. Respondents perceived the sweepstakes featuring winners with dissimilar gender as more attractive than those in the similar condition ($N=38$, $t(29.49)=2.73$, $p=.01$). This is consistent with the Interpersonal Gambler's fallacy.

Study 3 provides more direct evidence that the attribution to human versus external cause determines whether the similarity with the previous winners will lead to higher or lower participation likelihood. Before the sweepstakes' presentation, participants were primed either with neutral words or randomness words by solving a scrambled sentences test (Kay et al 2010). In the neutral condition, gender similarity with showcased winners had a positive effect on participation likelihood consistently with the Interpersonal Hot Hand effect ($N=42$, $t(40) = 2.69$; $p<.05$). However, in the randomness condition, respondents declared they were less likely to participate in the sweepstakes when they had the same gender as the two previous winners, in line with the Interpersonal Gambler's fallacy ($N=42$, $t(40) = 3.31$, $p<.01$; interaction $F(1,80)=18.13$, $p<.001$).

In sum, this paper extends the Hot Hand and the Gambler's Fallacies to the interpersonal domain. We show that similarity with the previous winners increases subjective probability of winning and participation likelihood to the next lottery when showcasing a winner encourages the attribution of winning to a human cause. But we reverse this effect by leading participants to attribute the drawing to an external uncontrollable cause. These results contribute to the vast literature on the positive effects of interpersonal similarity by showing it can also backfire under some circumstances.

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The Status by Association Effect

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Status and social hierarchies are ubiquitous in human societies. In marketing, status is commonly signalled by brand names, but it can also be endowed by loyalty program rewards, where certain customers receive a disproportionate share of a firm's attention or resources. This preferential treatment can take for example the form of dedicated check-in lines, special discounts, and exclusive lounges for profitable/loyal customers – treatments which are designed to make these individuals feel special. Many status or loyalty programs entitle the bearer to bring a guest who also receives benefits. For example, such guests might include a spouse of a frequent flyer receiving lounge access or working-class staff receiving an opportunity to enjoy the corporate box at a sporting event.

Do these guests feel “special” and what consumption implications does this have? When should reward programs allow consumers to bring guests?

The purpose of the present research is to investigate the social nature of status by developing a theory of “status contagion”. At a broad level we propose that status can “rub off” from a “true deserver” to that individual’s associates. Support for why status may rub off on those around them comes from research on emotional contagion (Hatfield et al. 1994; Neumann and Strack 2000; Ramanathan and McGill 2007), spontaneous trait transference (Argo and Main 2008; Winter and Uleman 1984;) and contagion effects (Argo et al. 2006; 2008). We conduct four studies to demonstrate both how and when status contagion is likely to occur and its implications for one type of socially related consumer behaviour - the likelihood of spreading positive word-of-mouth.

In Study 1, we demonstrate the tendency for the status by association effect to occur. This study used a one-factor design with four between-subject levels. Participants read a scenario indicating that they are planning on attending a nightclub (a common service experience for this population, as well as one that frequently has benefits of status (e.g., VIP sections, free beverages, special entrances)). In the scenario, participants read that upon arrival they notice that there is a long line at the nightclub. In the *self* condition, participants read that they have a VIP card that allows them to jump the line. In the *friend* condition participants read that their friend has a VIP card that allows both of them to skip the line up. In the *same benefit control* condition, the participant knows someone who is already at the front of the line so the participant will get in right away and will not have to wait (i.e., no status but still get to cut the line). In the *no benefit control* condition, participants arrive before the line forms, so access is gained into the club without waiting (i.e., no status but no special and/or negative treatment). Results demonstrate that individuals feel more status in both the self and friend conditions (which do not differ from one another) as compared to the two control conditions.

Study 2 examines our finding by identifying a boundary condition for the effect, namely the ambiguity of the true identity of the status holder. Specifically, we predict that when the identity of the true status holder is unclear, greater status contagion should result. This is because we derive satisfaction from the exhibition of goods rather than mere ownership (Veblen 1899; Mason 1981). A 2 (holder of the status marker: self vs. friend) x 2(ambiguity of the true identity of the status holder: high vs. low) between-subjects design tested our predictions. The procedure mirrored the “self” and “friend” conditions from Study 1, with the following exception: in the scenario when the other patrons in line see the participant entering ahead of them, it was made either *clear* or *unclear* to them as to who is the true cardholder. In the *clear* condition the security guard asks for the cardholder to be identified before letting the two in, while in the *unclear* condition, the security guard simply asks for identification. We also assess positive WOM intentions as the dependent measure. Results show that when the true holder is clear, there were no differences in WOM intentions, however, when it was unclear, guests intended to share more WOM than true status holders.

Study 3 further tests our framework by experimentally manipulating felt status in a one-factor between subject design with two levels (Think about a time when you felt higher (vs. lower) status than others....”) and testing its impact on WOM intentions. Those in the high (vs. low) status condition reported a higher intention to share WOM. Thus, Studies 2 and 3 together provide experimental evidence of mediation by examining the direct effect of felt status (the mediator) on WOM (the downstream dependent measure).

Study 4 is a field study of status contagion involving both the owner/main decision makers and guests in real luxury suites at a professional football game. Respondents self-identified as either guests or owners of their suite in a survey. Results reveal that guests feel more status than owners, and this mediates higher WOM intentions. This effect is negatively related to the number of games people have watched from the suite (i.e., more games, lower felt status and WOM intentions), suggesting that status decays over time and that WOM is harder to cultivate among long-standing status holders. Finally, results also reveal that guests use marginally fewer

of the suite's perks, suggesting that they are not more expensive to service. Collectively, results show that frequent status holders may require more and more perks to feel the same felt status over time as a person who only experiences VIP treatment on a single (or very few occasions).

In sum, our research suggests that there may be a significant return in the form of positive WOM from status contagion without the incurrance of a large cost. Thus, allowing VIPs to bring guests may be more beneficial than firms might think.

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7.6 Symposium: “Now I See What You Mean”: Emerging Methodologies for Revealing Consumers' Brand Meanings

Room: Maple Room A

Chair: Michael McCarthy, Miami University, Oxford OH, USA

Using Structural Semiotics to Compare Brand Meanings: The Case of Counterfeited Luxury Brands

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Grasping what various brands mean is a key issue in strategic brand management. A good understanding can lead to tremendous successes in brand extension (Martin et al., 2005) or in reshaping a brand communication plan (Park et al. 1986). Research on the topic is not new and comes from various disciplines: consumer behaviour (Fournier, 1998; Escalas & Bettman, 2005), psychology (Achenreiner & John, 2003), advertising (Oakenfull et al., 2000), sociology and economics (Grassi, 1999). However, professionals call for more practical tools to visualize brand meaning.

This paper is an attempt at showing how structural semiotics can help in this direction. Hence the contribution of this paper will be twofold: theoretically, we will explain how structural semiotics analysis can help unfold brand meaning, as it derives from brand communication and from consumers' perspectives. Managerially, we will show how a structural tool, the semiotic square introduced by Greimas (1983), is definitely a visual opportunity to represent core brand values emerging from both perspectives, and to confront them. A practical application of the methodology follows: various counterfeited luxury brand meanings have been assessed as derived from these brands' communication plans and from consumers of counterfeits. Propositions of future research in this area are proposed on the basis of this analysis. This is the third contribution of this paper, as prior research on counterfeited brand meaning is scarce and questionnaire or experience-based (Han et al., 2008; Nia & Zaichkowsky, 2000; Wilcox, 2009).

We propose a method to assess brand meanings, based upon the semiotics concepts developed by Greimas (1983). Various researchers and professionals have expanded its theories in marketing: Floch (1988, 2001) used semiotics to develop a new design for a supermarket, while Semprini (1992) worked on the relationship between branding (from a communication-oriented perspective) and semiotics. A review of the usage of semiotics in marketing research has been proposed by Mick et al. (2004).

Greimas' basic assumption is that meaning is brought by generation and narration: to be generated, meaning goes through three successive levels. The deepest one, the axiological level, is where the most fundamental brand values that shape the brand identity lie.

For example, a core value of Louis Vuitton would be freedom. The second step in the generative process is the narrative level. Base values are organised as stories or narratives, more or less structured, and put in relation one with one another. This enables to give brand values (implicit) a shape which can be then described. The setting (travel-oriented) in Louis Vuitton ads is shaped around the idea that characters are free, be it physically or mentally. The last step of the generative process is the discursive level: the base values & narrative structures are enriched by real characters, places, feelings etc. This level is the most sensitive to lifestyles, socio-cultural environments etc. In the Louis Vuitton example, this would be the iconic figures in the ads: Gorbatchev, James Bond.

When analysing the brand meaning, researchers go in a stepwise fashion, from the most obvious level (discursive) to the most hidden one (axiological level). To analyse communication, i.e. brand adverts, visual & plastic semiotics are used: researchers first identify icons & symbols & structures in the ad at the visual level and then go further in the reflection process to get core brand values. To analyse consumers' perspective, researchers use depth interviews, often combined with projective techniques, in order to elicit thoughts and feelings not always easily describable. Metaphorical analysis of their discourse is often used to get to the deepest level and to grasp brand core value.

Once an axis of values has been identified, researchers are able, thanks to the semiotic square, to expand it in a 4-components semio-narrative structure. The core brand values are then represented thanks to this visual tool. At this stage of the brand meaning analysis, the researcher should have come up with two semiotic squares that could be compared. Similar and opposed dimensions can be identified, enabling to understand the 'gap' between what is meant by the brand and what consumers perceive from this meaning. The study can then be expanded to a whole set of brands (ex: perfume brands, car brands etc) and according to the identified dimensions brands can be mapped of a perception map.

We use the method described in above to understand how consumers of counterfeited luxury goods see luxury brands' meanings. We draw from this a semiotic square representing core values of counterfeited luxury brands and identify two dimensions to map the brands accordingly. We compare this finding with the brand meanings of the mapped counterfeited brands, as conveyed by their recent communication plans. From the confrontation between the two semio-narrative brand structures, we draw propositions regarding how luxury brands could take advantage of some points to increase their brand equity and should severely take into account others that threaten it.

The research being ongoing, it is difficult to present in this proposal definite results. It is actually not even desirable, as the semiotics approach is evolving and self-corrective until completion of the analysis of the whole corpus of objects to be analysed (here the ads for example).

However, initial results from the analysis of consumers of counterfeits led to a semiotic square of brands core values. We hope, via this method to help researchers assess brand meanings in a two-sided perspective, to be able to confront both perspective and ultimately to present their findings using a visual tool understandable at once, even by novices in semiotics. We certainly want to push further the analysis related to counterfeited luxury brands meanings, paving the way for future reflection as far as communication strategies of the identified brands are concerned.

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Brand Association Elicitation via a Category Network Activation Methodology

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It is generally accepted that consumer brand knowledge is organized in associative networks in memory (Aaker 1991, Keller 1993, Roedder John et al. 2005). In these networks, everything the consumer associates with a particular brand is conceptualized as individual concept nodes linked to each other in a network of associations (Henderson et al. 2002; Roedder John et al. 2005). Over the past two decades, researchers have developed methodologies to reveal key brand associations, as they exist within an associative network. Two such methodologies, the Zaltman Metaphor Elicitation Technique, aka ZMET, (Zaltman and Coulter, 1995) and the Hierarchical Categorization Procedure, aka HCAT, (Oakenfull et al. 2000) have each been rigorously reviewed and published in leading journals.

A common element of ZMET and HCAT is the assumption that brand associations can be elicited via spreading activation (Anderson 1983, Collins and Loftus 1975). According to the theory of spreading activation, a concept node in memory is “activated” by exposure to a stimulus. Other nodes linked to the activated node will be in turn activated (i.e., the activation will spread) based on the amount of activation in the network. Furthermore, as activation increases, more nodes become active. The difference between ZMET and HCAT is the nature of the stimuli used to elicit brand associations. In ZMET, the stimuli consist of visual metaphors generated by informants from images they create or find that capture some association they have for the brand. In HCAT, the stimuli are potential brand extension products.

While both ZMET and HCAT have unique strengths, each examines the focal brand in isolation from its competitive brands. While doing so simplifies the association elicitation process, it foregoes the opportunity to leverage inter-brand association activation as a method for eliciting key brand associations relevant to a brand’s competitive positioning. This is a particularly valuable approach for two reasons. First, the increased activation resulting from considering multiple brands should increase the probability of identifying all key brand associations. Second, some associations may only become salient enough to be elicited when competitive brands are present in the elicitation process.

This paper presents Category Association Network Elicitation (CANE), a new methodology that allows researchers to leverage spreading activation among competing brands to elicit brand associations for one or more focal brands of interest. We first describe the methodology and then discuss the findings of an initial study using this methodology.

CANE elicits associations held by two or more brands in a competitive product or service category and consists of having informants complete a purpose-built Internet application consisting of several steps.

The informant is presented with a randomly ordered series of competitive brands and asked to indicate the brands with which s/he is familiar.

Assuming the informant indicates familiarity with the focal brand(s), s/he is asked to organize the focal and other remaining brands into groups, or cliques, such that the brands in a group are similar to each other in one or more ways. It is important to note that the informant does not yet know the identity of the focal brand(s) so there is no biasing of which brand(s) are grouped with the focal brand(s).

Once the brand grouping is completed, the informant is asked to focus on the group containing the focal brand and, through a series of paired comparisons, list ways the focal brand is similar to and different from each other brand in the group. If more than one focal brand is being studied, the second and third steps are repeated until all the focal brands have been considered.

Once all the informants have completed these tasks, the reasons why the focal brand(s) are similar to and different from the brands with which they were grouped are reviewed and consolidated to create a list of associations for the focal brands in the study. These associations can then be used as input to subsequent research focusing on quantifying and/or describing the nature of the associations for each brand.

We want to note two important characteristics of the associations elicited via CANE. First, the associations elicited are unbiased because the informant's brand groupings are produced using any grouping rationale s/he wants, and not one provided by the researcher. This allows the informant to generate his own set of within-group brand similarities and differences and not respond to any priming or prompting by the researcher. Second, having the informant concurrently consider a number of competitive brands maximizes the likelihood of activating associations that drive a brand's equity within its competitive category. This allows the researcher to further study key brand and category associations that may not be activated when the brand is studied in isolation.

We now present and discuss the findings of a two-part study testing CANE. The first study used CANE to elicit brand associations for three competitive universities. The informants were 46 high-achieving students entering their senior year of high school. Each informant was randomly assigned to provide associations for one of the three universities. A total of 42 associations were generated across all three universities. Then, a second study was conducted among 233 high-achieving students entering their senior year of high school to determine the pervasiveness, salience and valence of each of these associations for universities 1 and 2. This data was analyzed to determine the points-of-parity (POPs) and points-of-difference (PODs) for each university (Keller et al. 2002).

The findings of this initial study indicate the potential for CANE to make a significant contribution to future branding research requiring the elicitation of brand associations. We believe that by maximizing the unbiased activation of brand associations in a competitive context, CANE provides consumer researchers a tool to ensure that all the associations of potential interest will be elicited and available for further study and analysis.

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Multi-Sensory Sculpting (MSS): Eliciting Embodied Brand Knowledge via Multi-Sensory Metaphors

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Bodily experience – the stimulation of the sensorial and corporeal – has attracted much attention amongst marketing academics and practitioners. Marketers aim to provide consumers with unforgettable experiences leading to a unique brand position in consumers' minds. Brand experience is an individual, subjective response to brand-related stimuli like products, services, communications, or places (Brakus, Schmitt, and Zarantonello, 2009). Brand experience involves different senses such as vision, smell, taste, audition, touch, introspection, and proprioception (e.g., Joy and Sherry, 2003; Schmitt, 1999) and is a prerequisite for brand knowledge to develop (e.g., Holbrook and Hirschman, 1982; Keller, 2009). Multi-sensory brand experiences result in embodied brand knowledge,

that is, cognitive representations reflecting what individuals sensed, touched, felt, smelled, tasted, viewed, talked, heard, and how they moved. Human beings store embodied knowledge on a non-conscious and modality-specific level, that is, in the same way in which they have sensorially experienced an object before (Barsalou, 1999, 2003; Damasio, 1994, 2003; Paivio, 2006). Multi-sensory metaphors (i.e., verbal or non-verbal figurative expressions) allow individuals to articulate embodied knowledge (Johnson, 2009; Lakoff and Johnson, 1980).

Research on consumer behavior investigates consumers' conscious sensory experiences, for instance, with the Internet (Joy, Sherry, Venkatesh, and Deschenes, 2009), high-risk consumption activities (Arnould and Price, 1993; Celsi, Rose, and Leigh, 1993), or the individual body (Thompson and Hirschman, 1995), as well as consumer experiences with stores (Sherry, 1998) and brands (e.g., Brakus et al., 2009; Schembri, 2009). Only a few studies (e.g., Joy and Sherry, 2003; Zaltman, 1996, 1997, 2003) focus on non-conscious, multi-sensory experiences (i.e., embodied consumer knowledge).

Research on consumer knowledge, however, increasingly recognizes the importance of embodied knowledge (e.g., Christensen and Olson, 2002; Zaltman, 1997). Researchers argue that much of this knowledge lies "just below the threshold of consciousness – that is, it is subconscious or preconscious as opposed to unconscious – and can be retrieved and reported if sufficiently indirect methods (e.g., projective techniques) are used to overcome sensitivity barriers" (Holbrook and Hirschman, 1982, p.132 (text in bracket added)). Still, brand research strongly focuses on direct, verbo-centric techniques in retrieving brand knowledge, for example, via free association techniques, stories, or fixed-point scales (e.g., Aaker, 1997; Brakus et al., 2009; Escalas, 2004; Keller, 1993, 2003; Woodside, 2006). Some marketing researchers suggest methods that allow actually tapping non-conscious embodied brand knowledge by stimulating those senses that have originally been involved in consumers' brand experiences (Blümelhuber, 2004; Coulter and Zaltman, 2000; Zaltman, 1996, 1997, 2003; Zaltman and Zaltman, 2008). These methods include the Zaltman Metaphor Elicitation Technique (ZMET) (Coulter and Zaltman, 2000; Zaltman, 1997) and collage building (e.g., Blümelhuber, 2004). While offering first insights into embodied brand knowledge, several shortcomings characterize these methods: (1) existing methods mainly focus on the direct stimulation of one human sense (i.e., vision) while either neglecting or only directly asking for (i.e., only verbally stimulating) other senses embodied brand knowledge involves and (2) data analysis mainly focuses on verbal and visual metaphors while widely ignoring other types of non-verbal metaphors.

Building on insights from managerial and organizational science research (e.g., Barry, 1994; Buergi and Roos, 2003; Sims and Doyle, 1995), this article contributes to current brand knowledge research by (a) introducing multi-sensory sculpting (MSS) as a research method that allows retrieving embodied brand knowledge via multi-sensory metaphors and (b) proposing a metaphor-based data analysis approach to interpret and visualize multi-sensory data. MSS builds on Calvert, Spence, and Stein's (2004, p.11) argument that "there can be no doubt that our senses are designed to function in concert and that our brains are organized to use the information they derive from their various sensory channels cooperatively in order to enhance the probability that objects and events will be detected rapidly, identified correctly, and respond appropriately". Retrieving embodied brand knowledge requires activating cognitive imagination by providing individuals with sufficiently concrete cues to stimulate different senses (Paivio and Csapo, 1973).

In MSS, participants (1) receive a set of materials stimulating different senses embodied brand knowledge relies on; (2) select materials representing what the brand means to them; (3) combine these materials into sculptures, and (4) verbally explicate their sculptures' meaning. The MSS task encourages consumers to produce multi-sensory metaphors that carry rich symbolism (Levy, 1959) and provide researchers with access to non-conscious, embodied brand meanings (Coulter and Chowdhury, 2006). Data analysis involves both emic (participants') as well as etic (researchers') interpretations and focuses on detecting the meanings of all verbal and non-verbal metaphors participants produced during the MSS task. A minimum of two researchers separately analyze participants'

stories, considering both language (i.e., verbal metaphors in participants' stories) and content (i.e., key concepts and meanings expressed via metaphors) of texts as potential loci of brand meaning (Arnold and Fischer, 1994; Spiggle, 1994; Thompson, 1997). In interpreting non-verbal metaphors, researchers follow Forceville (1994) who argues that interpretation should follow the same principles as verbal metaphor analysis. Researchers constantly relate non-verbal metaphors to verbal metaphors to support underlying brand meanings. Using the qualitative analysis software ATLAS.ti the results are ultimately aggregated and visualized in a so-called concept map (Novak, 1991) that illustrates (a) links between the most often arising key concepts expressed via verbal and non-verbal metaphors and (b) senses involved in the elicitation of these key concepts.

Although MSS shows some methodological analogies with existing research methods, the method is clearly distinct and contributes to our knowledge by (a) stimulating all senses originally involved in brand experience and (b) providing researchers with a procedure for retrieving and analyzing embodied brand knowledge. An empirical example illustrates the identification of embodied brand knowledge regarding an internationally operating Austrian luxury brand. The article concludes with implications for management highlighting the advantages of MSS compared to other brand knowledge retrieval methods.

Visualizing consumer emic stories of archetype enactments via shopping for and using brands

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This study seeks to advance implicit nonverbal metrics of consumers' implicit attitudes toward visual stories (e.g., picture stories) of consumer using brands to enable transformations from everyday lives into hero, rebel, mother of goodness, siren, wise old man, and little trickster archetypes. The study includes a review of relevant visual narrative literature including brand symbolism in Jung's (1916/1959) emic interpretations of his own paintings in *The Red Book* to McClelland's (1986) development of thematic apperception testing (TAT) for measuring implicit motives. The method permits testing storyboards that are much like Sunday comic strips that shows a consumer (protagonist) enacting a story that incorporates a enabling/blocking actions for the protagonist in achieving a deep and/or especially satisfying interpretation/catharsis--and fulfills an archetypal storyline/myth (e.g., siren). For many P&G brands the principal storyline may be the "Mother of Goodness" archetype (Sood 2010). A key point in the analysis is that all visualizations of this or any other archetype work vary greatly in their abilities to achieve powerful emotional protagonist-brand connections.

By visually substituting elements in the enactment (protagonist, brand, action, outcome, verbalizations-in-balloons), TAT responses from respondents provide understanding of implicit meanings on whether or not the brand's role (as well as the protagonist and action in the storyboard) works well or fails to accomplish what Aristotle refers to as "proper pleasure." For example, what happens to the story when you substitute a plastic bottle of All brand soap brand rather than Tide inside the storyboard in consumer T.A.T. reports by consumers? Nuance into the story's emotional impact and content of consumer interpretations is output of such visual research. For example, consider the outcome of substituting James Dean as a visual brand in a story in comparison to Zac Efron in a storyboard with a mother and Tide brand soap--what are the outcomes of such stories that consumers create in TATs? Our presentation includes preliminary answers to this and related questions.

The study includes a four-step method procedure. First, more than 200 consumer-authored (emic) stories of their interactions and experiences with brand were collected as they appear in natural contexts, that is, blog reports. Five to thirty blogs were collected that appeared to tell stories about each of 12 archetypes.

Second, each of these stories are content analyzed using 12 TAT degrees-of-freedom measurement instruments with each measurement instrument representing characteristics in 12 archetypes (i.e., the hero, ultimate strength, the siren, the rebel (anti-hero), the creator, the change master, the powerbroker, the wise old man, the loyalist, the mother of goodness, the little trickster, the enigma). This analysis supports the view that (1) consumers write stories that illustrate archetype enactments with most of the emic stories collected depict primarily one archetype as well as include several characteristics of one to three additional archetypes. (2) Most (not all) stories that consumer tell most match up well with the stories that brand depict about the consumers who use the brand and consumers who do not use the brand.

Third, two versions of four-panel storyboards (i.e., visual narrative art) are created based on the archetypal content analysis of the 500 emic stories. The two versions include correctly versus misinforming a viewer as to brand-archetype enactment in each story.

Fourth, a between-group design is used to test the hypotheses that viewers answers to a TAT instrument for each storyboard indicate when a brand-archetype is correctly or incorrectly matched; (2) correctly versus incorrectly matching brand-archetype storyboard is inherently more appealing both implicitly and explicitly to viewers; (3) using behavioroid metrics (Aronson, Ellsworth, Carlsmith, & Gonzales 1989), viewers more frequently select the correctly versus incorrectly brand-archetype matches as desirable for them to use. Each participant will evaluate six storyboards – three correctly matched for brand and archetype and three incorrectly matched – all six storyboards in different product categories. Thus, participants will not evaluate both a brand-archetype match and a mismatch in the same product category. A total of 80 participants will be included in the study; 40 participants will view the brand-archetype match and 40 participants will view the brand-archetype mismatch for a given product category. All participants will be U.S. adults (30 – 65 years old) with extensive buying experience.

Creating VNA permits the researcher and/or the informant to work in an evolutionarily old and primal mode of communication (Woodside 2010). Such a medium is useful because “all consumers have relevant *hidden thoughts*: ideas they are not aware of possessing but are willing to share once discovered” (Zaltman & Coulter, 1995, p. 39). Zaltman and Coulter (1995) emphasize the possibility of accessing these hidden or deep structures using a variety of techniques such as those used in art therapy, and especially phototherapy, can be very effective in surfacing such thoughts (Weiser, 1988, Ziller, 1990). What a person notices in a picture will always mirror the inner map that she or he is unconsciously using to organize and understand what the senses perceive (Weiser, 1988).

The present study contributes to consumer psychology by showing how to advance theory and research on how primal forms (archetypes) relate to consumer-brand stories using research methods that collect system 1 thinking (implicit processing, Evans 2008). The findings justify the focus on applying visual psychology theory and research methods in the field of consumer psychology. The research methods may be useful for testing the impact of creating storyboards that accurately reflect the stories that consumers tell naturally that involve brand-archetype enactments.

7.7 Individual Papers: SCP Dissertation Proposal Competition Award Winners

Room: Maple Room B

Chair: Maria L. Cronley, Miami University of Ohio

Does the Modality in Which a Message is Communicated Matter?: How Consumers Represent and Integrate Alternative Types of Sensory Data

Noelle Nelson, University of Minnesota, USA*

Investigators of consumer psychology often study how people assess products or experiences by instructing them to read, listen to, or look at product descriptions and/or images. Relatively little work has considered the significance of presenting information in various modalities. The present research focuses on how data from different modalities are interpreted in the brain, how they affect processing and perceptions, and how the modalities may interact with each other.

Baddeley and Hitch's (1974) model of working memory provides a useful template that explains how people process alternative sensory input. This model suggests that information is processed in two ways: (a) phonological or in terms of meaning (e.g., abstract language, audio information), or (b) visually (e.g., images, spatial data). These two pathways are claimed to account for any type of information or sensory input.

The model posits that information initially enters short term memory and is directed to the appropriate phonological or visual pathway by the central executive. Then, the information can be held for a short time within either pathway. Independent resource pools fuel information processing in each pathway.

The preceding suggests that processing too much information in one pathway, say excessive audio information in the phonological pathway, leaves inadequate resources for processing other meaning-based data. However, if the same information is processed by *both* pathways (e.g., delivered as part audio and part pictorial data), it should be processed and remembered well because each pathway's resources processes only a portion of the data. Better memory for information can increase the perception of its complexity and potentially its favorableness.

Further, because the central executive controls which pathway processes information, incoming information is malleable. For example, though the phonological pathway is generally responsible for language, if given language elicits mental images, it can be processed in the visual pathway. Therefore, the input modality (e.g., visual text vs. audio) can dictate which pathway processes information, but so should whether the language elicits strong mental imagery or not.

In Study 1, I reasoned that using a single (i.e., either a visual or a meaning-based) versus dual pathways and their resource pools to process descriptive product information is influenced by the information delivery mode (text or audio) and whether the information itself is expressed using concrete words that are likely to evoke visual imagery (Paivio & Csapo, 1969). These manipulations should affect product assessments.

Study 1 employed a 2 (product information delivery: text vs. audio) by 2 (description language: imagery-evoking vs. meaning-based) by 4 (menu item: pasta, soup, rice, omelet) design where menu item was a within subject factor. When the product is described using

imagery-evoking language delivered via text, it is apt to overload the visual pathway during processing; but when the description employs imagery-evoking language delivered in audio form, processing of the data is split between both pathways. Alternately, textual delivery of a meaning-based product description is processed in both pathways, but audio delivery of the meaning-based description overloads the phonological pathway.

Participants received either a textual or an audio-delivered description of each food option and received the description in either imagery-evoking or meaning-based language. Then, participants indicated how complex they felt the product was and their memory (recognition) for the described product.

As theorized, when both the delivery channel and the language used to describe menu items led participants to process the product information in two separate pathways (a single pathway), they perceived the description as more (less) complex. Participants also remembered slightly more words from the descriptions when they were presented in dual, versus single, pathways.

A central goal of study 2 was to test whether using a more integrative relational (versus item-specific) processing style at encoding not only eliminates the decrements associated with the overloading of working memory, but actually reverses the direction of relevant outcome measures, namely perceived product complexity and favorableness. This follows because whereas the use of item-specific processing entails encoding each piece of data as a separate unit, reliance on relational processing elicits encoding of shared themes or interconnections, which effectively and efficiently chunks separate pieces of data (e.g., Hunt & Einstein 1981; Meyers-Levy 1991). Accordingly, I hypothesized that data encoded using item-specific processing will yield outcomes similar to those in Study 1. But if data are processed relationally, people will use their resources more efficiently, enabling them to retain the data regardless of (the single and dual) pathway condition. Nevertheless, processing in both pathways requires the central executive to expend time and effort switching between pathways. Therefore, processing product descriptions using a single pathway should enable participants to elaborate more on the information than people who continuously switch between pathways. This higher (lower) elaboration is expected to prompt people to infer that the described food items are higher (lower) in complexity, which for aspiring sophisticated diners should translate into more (less) favorable assessments of the foods. In this study, the stimuli consist of chocolates, and I prime relational or item-specific processing.

Among item-specific processors, outcomes replicated those of study 1. But relational processing in a single versus dual pathways prompted both more versus less complex and favorable product assessments. Hence, the previously observed pattern of outcomes reversed under relational processing.

Do alternative modalities produce different memory and downstream outcomes? Due to the operational dynamics of working memory, I show that the *delivery* and *content* of incoming information can affect not only how well data are remembered, but also how a target stimulus is perceived (e.g., its complexity and favorability). I also show that such outcomes can be altered (i.e., reversed) by inducing different encoding strategies.

By examining such issues, our understanding into how working memory can affect evaluations and expectations for a product grows. This is important because expectations of products are known to affect actual experiences. Further, because of sensory rich consumption environments, the ability to understand the interplay between modality input in working memory is vital to marketing academics and practitioners.

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Do the Clothes Make the Man Lazier? Aspirational Discrepancy, Symbolic Props and Goal-Relevant Behavior

Adriana Samper, Duke University, USA*

A growing body of research demonstrates that consumers use products to compensate for perceived deficiencies in their level of identity attainment. MBA students with lower GPAs tend to wear more expensive watches and shoes than those who are succeeding academically (Wicklund & Gollwitzer, 1982), individuals perceiving a reduced sense of power are willing to spend more on luxury goods (Rucker & Galinsky, 2008) and people with fewer economic resources spend proportionally more on status-enhancing positional goods than the wealthy individuals that they are trying to emulate (Charles, Hurst, & Roussanov, 2009; Christen & Morgan, 2005). Such phenomena raise questions about how consumers view products that are symbolic of identity attainment (i.e., “symbolic props,” such as status goods). Are they viewed merely as tools to “look the part,” or do individuals actually believe that use of these symbolic products will bring them closer to their aspired identity goals? Further, how do these products actually impact consumers’ behavior when used in identity-relevant tasks?

In this work, I address these questions, drawing from research on self-discrepancy, the dynamics of goal pursuit and symbolic self-completion. In particular, I examine how people differentially view and behave with products that indicate identity attainment (e.g., high end golf clubs, a leather business padfolio) depending on how discrepant they perceive they currently are from their ideal, or hoped-for self (their aspirational discrepancy). I find that individuals who feel more discrepant from their aspired identity view products signaling identity attainment as more instrumental, or useful, in helping them achieve their identity goals, yet these individuals are also more likely to exert reduced effort when using these products in identity-relevant tasks.

Across 3 studies, I examine first how aspirational discrepancy impacts motivation and perceptions of a symbolic prop’s “instrumentality” in goal achievement, reflected in a) how efficacious one believes a product is in improving goal-relevant performance, b) how much of a confidence “boost” one expects to receive from the product, and c) how much the product is anticipated to impact the outcomes of a goal-relevant situation. I next shift from anticipated to actual use, examining how aspirational discrepancy impacts the effort individuals put toward identity attainment when using symbolic props.

In Study 1, I test the proposition that greater aspirational discrepancy increases prop instrumentality and examine whether this is assumed to occur for all individuals, or whether it only occurs when people think about themselves. Male golfers from an online panel were recruited to participate in this 2 (aspirational discrepancy: low vs. high) x 2 (perspective: self vs. other) between-subjects experiment. Participants read a scenario about receiving feedback from an instructor on golfing performance either in the first person (imagining oneself) or in the third person (imagining an other, “Alan”). The feedback indicated that they (Alan) were (was) far from (close to) the goal of being an accomplished golfer. Participants were then asked to rate the anticipated performance benefit they expected themselves (Alan) to receive from using a set of high-prestige golf clubs and balls. Results revealed that individuals taking a self perspective expected that they would get a greater performance benefit from high end golf equipment when they were far (vs. close) to an “accomplished golfer” identity goal. However, the opposite pattern emerged when individuals took the third person (“Alan”) perspective—individuals felt he would get a greater performance benefit when he was close (vs. far) to the identity goal. Thus, the effect of greater discrepancy increasing perceptions of prop instrumentality is egocentric, holding only when the individual himself feels aspirationally discrepant and not when he makes judgments about another aspirationally discrepant individual.

In Study 2, I examine the underlying driver of this effect as well as a boundary condition related to goal pursuit. Women interested in fashion were recruited online to participate in this 2 (aspirational discrepancy, measured) x 2 (rate of progress, fast vs. slow,

manipulated) experiment. Participants' first rated their discrepancy related to an aspired fashion identity using Markus & Nurius' (1986) possible selves framework. Participants were next presented with a brand recognition task designed instill a feeling of rapid (vs. slow) progress toward fashion knowledge goals. Participants then rated their motivation to improve their fashion knowledge and the instrumentality of three high-fashion products in improving fashion knowledge and confidence. Results revealed that, replicating the "self" conditions of the Study 1, for individuals in the "fast" progress condition, greater aspirational discrepancy again increased prop instrumentality. However, for those in the "slow" progress condition, there was no effect of discrepancy on instrumentality. Mediation analyses suggested that this interaction is driven by motivation.

In Study 3, I examine the effects of symbolic props on actual behavior. Undergraduate students were recruited to participate in this 2 (aspirational discrepancy, measured) x 2 (type of product: business-compatible padfolio vs. non-business compatible spiral notebook) experiment, where I shifted focus to a business identity. Participants rated their aspirational discrepancy from a business identity using the Markus and Nurius measure. After this measure and several filler tasks, participants were provided with a padfolio (notebook) with which to complete an "employability" task on which they would be evaluated. Results revealed that individuals who felt more discrepant from a business identity worked less hard on the employability task when using the padfolio relative to the notebook, and less hard relative to less discrepant individuals using the padfolio.

In sum, I show that greater aspirational discrepancy increases prop instrumentality, that this effect is egocentric, mediated by motivation, and only occurs when the perceived rate of progress toward the identity goal is sufficiently high to merit engagement toward the goal. Contrary to expectations, however, the use of symbolic props by more discrepant individuals may actually limit effort on goal-relevant tasks, presumably because the prop is perceived as a sufficient investment (e.g., Fishbach & Dhar, 2005, 2006) in achieving one's aspired identity. Such findings have significant implications for marketers and for consumer welfare, as the same goods that are most attractive to aspirationally discrepant individuals may hamper their efforts toward achieving their goals.

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Sleight of Mind: The Interaction of Conscious and Nonconscious Consumption Goals

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Goals are desired end states that, once activated, guide our choices and behaviors (Custers and Aarts 2005). Life, however, is full of conflicting goals. Whether it is a goal of saving money competing with a goal of spending, a goal of recycling versus a goal of enjoying the convenience afforded by disposable paper products, or even a goal to be the best employee up against a goal of being the best parent when time is limited, each day brings more goals and, as a result, more opportunity for conflicts.

A reasonable question to consider then is how individuals ultimately make a tough decision when their goals are in conflict with one another. Further complicating this decision is the recent finding that goals need not even be conscious to motivate us and to affect our behavior (Bargh 2002). Indeed, studies in marketing and consumer behavior have found that nonconscious goals both emerge and influence behavior beyond the conscious awareness of human beings, such as the finding that incidental exposure to brands like Nordstrom or Wal-Mart make consumers spend more or less money, respectively (Chartrand et al. 2008). Although research suggests

that these nonconscious goals operate comparably to their conscious counterparts (Chartrand and Bargh 1996), it remains to be understood how conscious and nonconscious goals influence each other, particularly when goals are in conflict. The current research attempts to fill this gap by exploring this interaction between conscious and nonconscious goals, and to a greater extent, how humans make decisions when these goals are in conflict.

The current paper develops and tests a model of goal development, pursuit, and conflict resolution incorporating both conscious and nonconscious goals in consumption contexts. More specifically, the model suggests that when encumbered with a conflict between two conscious goals consumers become more susceptible to the influence of underlying nonconscious goals, as well as the behaviors activated by these nonconscious goals, yet remain unaware of this influence. We refer to this phenomenon as a “sleight of mind,” as it is comparable to how a magician deliberately distracts an audience while covertly setting up his illusion in a sleight of hand trick. In this context, conscious goal conflict distracts individuals from the increasing influence of nonconscious goal cues. This interplay between the conscious and nonconscious may provide insight on what is commonly referred to as a “gut feeling” or “intuition” in decision-making.

To test the proposed phenomenon that nonconscious goals will exert varying influence on consumer behavior depending on the degree of conscious goal conflict, a series of experiments was developed. More specifically, we hypothesized that as the level of perceived conflict increases between conscious goals, the influence of nonconscious goals becomes stronger. Following similar logic, as the level of conflict between conscious goals decreases, the influence of nonconscious goals diminishes. The first experiment tests these ideas by presenting three groups – conscious-goal-compatible group, conscious-goal-conflict group, and conscious-goal-neutral (control) group – with a series of nonconscious goal primes and observing the differential effects on those groups’ consumption behaviors. The second, related study directly manipulates the level of perceived conflict between two conscious goals to see if the same effect on consumption behavior is obtained. In this second study, we directly check for the moderating effect of conscious goal conflict on the influence of nonconscious goals. The third experiment extends the initial findings to show that, in the presence of conscious goal conflict and the absence of nonconscious goal cues, consumers’ ability to act is severely debilitated. The purpose of this last study is to show the facilitating effect nonconscious goals can have on consumer decision making, as well as to provide initial evidence for the notion of a “gut feeling” in decision making via cognitive thought listing and post-experiment interviews.

To further explore the underlying process of the proposed model, we supplement the experimental research with neuroimaging methodology. fMRI is beneficial in that it provides convergent validity and is a more proximal measure of the proposed processes than the behavioral measures of a lab experiment. Furthermore, fMRI may help clarify what is, in fact, nonconscious, as the current nonconscious literature relies primarily on participants failing to mention or acknowledge the presence of stimuli, essentially a null effect. It is expected that conscious goal conflict will appear as increased activation in the anterior cingulate cortex, a region implicated during conflict monitoring and detection, with decreased activation in cortical regions. The functional tasks for the fMRI scans simply involve having participants participate in the behavioral experiments while in the scanner. If we see consistent patterns across the studies, we have reason to believe that the underlying process proposed is, in fact, what is taking place. Furthermore, variations of these studies, specifically variations involving specific kinds of priming, may lead to increased activations of brain regions associated with these primes (e.g., activation of the fusiform face area when faces are used as primes). This finding would bolster support for the effectiveness of nonconscious influence, as we may then have neural correlates associated with specific nonconscious cues and goals, which would help in the design and operationalization of future behavioral and neuroimaging studies as researchers will have stronger evidence that they are priming what they claim to be priming.

One final extension of the work involves looking at how conscious and nonconscious goals interact between the self and others, as most goal research has focused on the self or self goals in the context of others and less on self/other interactions or nonconscious goals. To test whether or not the aforementioned effects found in the previous experiments hold in the context of self and other goals, two experiments consider goal pursuit in two self/other consumption settings. The first pits the self against the other (e.g., a shopper and a salesperson) to see how one's goal conflict/compatibility with the other's goals, both conscious and nonconscious, influence self behavior in instances of distinct self/other situations. The second integrates the self and the other (e.g., a joint-purchasing decision between two consumers) to test that the model remains applicable when the self and the other, although still separate entities, are more aligned.

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7.8 Symposium: Social Interactions and Social Relationships

Room: Maple Room C

Chair: Wendy Liu, UC San Diego, USA

Bringing Us Together or Driving Us Apart: The Effect of Consumer Input Solicitation Mode on Propensity to Transaction with an Organization

Wendy Liu, UC San Diego, USA

David Gal, Northwestern University*

Marketers and non-profit organizations alike regularly solicit input from customers or donors for myriad reasons, most notably to measure consumers' preferences, expectations and satisfaction. Further, organizations welcome comments and suggestions from customers in order to better serve their needs.

Despite the pervasiveness of consumer input as a component of organizations' marketing actions, extant research on the effect of soliciting input on consumer behavior is still limited to a few (albeit significant) streams of findings (e.g., Chandon, Morwitz, and Reinartz 2004; Dholakia and Morwitz 2002; Levav and Fitzsimons 2006; Liu and Aaker 2008; Ofir and Simonson 2007). In particular, research has tended to focus on the measure of purchase intentions and satisfaction, and the role of judgment accessibility and valence. However, we conjecture that soliciting input may give rise to a broader set of factors at play. Of particular importance, soliciting input creates a social interaction between the company and the customer. An interesting question thereby arises, namely, how might such an interaction affect the relationship between the customer and the company, particularly as perceived by the customer? And how might a change in the perceived relationship translate to eventual purchase?

In the present research, we propose that soliciting different forms of consumer input can have differential effects on the customers' perception of the relationship with the organization and subsequent purchase. Specifically, we focus our examination on three types of inputs frequently solicited by organizations from customers, namely, advice, opinions, and expectations, and propose that compared to other forms of inputs, advice has a unique intimacy effect whereby giving advice makes the customer feel closer to the organization, resulting in greater likelihood of future purchase, and greater identification with the organization. In contrast, stating expectations tends to have a distancing effect.

We propose that compared to other forms of input, advice is unique in relation to the perception of closeness because advice-giving induces the giver to take an empathic perspective. In particular, advice involves actively involving oneself in the other person's circumstances, thereby focusing on maximizing the other party's welfare from that party's perspective. In contrast, expectations tend to have an evaluative tone, creating a separation between the two parties, an evaluatee and evaluator.

In experiment 1, participants were asked to give advice to a non-profit organization (Building Hope). Subsequently, these participants donated (with real money) significantly more to the non-profit, compared to a control group who were merely asked to read about (but not give advice to) the organization ($M = \$3.69$ vs. $M = \$2.53$, $p < .01$). Further, we find that this generosity is specific to the advice recipient (Building Hope) but did not extend to another non-profit. The results thus support the notion that giving advice builds a closer relationship to the advice recipient, rather than simply activating an other-oriented mindset.

In experiment 2, we broaden the context to a commercial company (EcoGym). After giving advice/expectations, compared to simply reading about EcoGym, participants expressed significantly more/less likelihood to get a membership at the gym relative to a no-input control condition on a 7-point scale ranging from 1 "not at all likely" to 7 "extremely likely," ($M_{\text{Advice}} = 4.29$ vs. $M_{\text{Control}} = 3.60$ vs. $M_{\text{Expectations}} = 2.77$; $p < .05$ for all comparisons). Further, participants felt they themselves were more/less environmentally friendly and fit, after giving advice/expectations, a result of feeling greater/less identification with a close/distant party.

In experiment 3, we compare the effect of giving advice to that of providing expectations and a control condition of giving opinions. In another for-profit context (a healthy fast casual restaurant concept called Splash!), we find that giving advice led to significantly greater purchase likelihood than giving opinions, which in turn led to greater purchase likelihood than did providing expectations on a 7-point scale ranging from 1 "not at all likely" to 7 "extremely likely," ($M_{\text{Advice}} = 5.74$ vs. $M_{\text{Expectations}} = 5.05$ vs. $M_{\text{Opinions}} = 4.29$, $p < .01$ for all comparisons). Further, using the IOS scale (Aron et al. 1991), we find that indeed giving advice, opinions, or expectations significantly changed one's subjective relationship distance to the organization, mediating one's purchase likelihood. Content-coding analysis also showed that participants were more likely to adopt an empathic perspective following the provision of advice than of opinions, and less likely to adopt an empathic perspective following the provision of expectations than following the provision of opinions. In a multiple step mediational analysis, input mode was found to affect purchase likelihood through both empathic perspective and closeness as per the following model: input mode \rightarrow empathic perspective \rightarrow closeness \rightarrow purchase likelihood. In experiment 4, we examine a moderator of the effect, namely, what happens when advice is paid for? We find that when advice is paid for, it shifts the perception of the nature of the relationship, eliminating the positive effect from advice giving. The theoretical and practical implications of this research are discussed.

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Close Friends Stab You in the Front: Long-Standing Relationship Partners Exchange More Negative Feedback

Stacey Finkelstein, University of Chicago, USA*

Ayelet Fishbach, University of Chicago, USA

Feedback is an integral part of social interactions, since individuals constantly provide each other with information on successful and failed actions. In particular, feedback is an integral part of people's relationships with their friends, romantic partners, family

members, colleagues, and even with their neighbors. In the course of these relationships, friends often praise each other for investing time and effort in the relationship and criticize each other for not paying enough attention to the relationship. In this work, we explore the type of feedback friends seek from and give to one another, and the type of feedback they are more likely to exhibit behavioral change in response to.

We propose that relationship depth will differentially impact the share of positive versus negative feedback that individuals exchange in the course of their interactions. Positive feedback increases motivation to invest in a relationship by promoting relationship commitment (in addition to improving self-esteem). We assume that relationship partners are generally interested in promoting relationship commitment and the depth of the relationship should have minimal impact on their desire to maintain commitment. Therefore, regardless of how deep the relationship is, the share of positive feedback should remain relatively constant as the relationship progresses. In contrast, negative feedback is effective in increasing effort only to the extent individuals infer lack of progress or insufficient investment (and not lower commitment). To the extent that individuals' concern with monitoring progress or investment changes over time, the effectiveness of negative feedback in motivating action will also change.

Taken together, we propose that individuals in new relationships focus exclusively on evaluating relationship commitment – they wish to evaluate whether the relationship is important and “working” – and negative feedback undermines such sense of commitment. However, individuals in a more long-standing relationship also wish to monitor the amount of investment in the relationship goal (i.e., progress) and for them negative feedback signals insufficient investment. We also test an interesting implication of focusing on negative feedback: individuals will often find their new relationships more pleasant and nonthreatening than their long-standing relationships. This does not imply that long-standing relationships are less satisfying than new ones, since long-standing relationships offer different benefits from new ones. However, the mere pleasantness of the interaction could be greater for new relationships than long-standing relationships.

We report five studies that tested these hypotheses. In study 1, we examine feedback seeking behavior to test whether those who feel their relationship is long-standing seek more negative feedback on the ways their weaknesses. Indeed, we found that participants who perceived their relationship was long-standing (vs. new) were more likely to seek negative feedback on their weaknesses from their friend.

Study 2 extends the results to test for feedback giving behavior. We hypothesized that people who infer they have been pursuing a shared friendship goal with someone for a long time will give their experienced friend negative feedback about their weaknesses. To test this hypothesis, we had participants write a toast to a friend and we analyzed the amount of positive versus negative feedback they incorporated in their toast. We found that those who thought they knew the other person for a long time gave more negative feedback to their friend than those who thought they knew their friend a short while (inexperienced) but there was no difference in positive feedback giving depending on perceived experience in the relationship

Study 3's aims were two-fold, we examined the inferences participants made from hearing about their strengths or weaknesses from a friend and explore the impact on their motivation to spend time and connect with a friend. In support of our hypothesis, we find that individuals who perceive their relationship is long-standing infer their level of effort investment from negative feedback (e.g., they focus on monitoring their progress), and thus are more motivated to connect with their friend when they receive feedback on their weaknesses.

While the first 3 studies examine perceived relationship depth, study 4 extends these findings to examine people's motivation to connect with a friend over Facebook. Participants were either assigned to chat with a new acquaintance or a close friend and to ask their chatting partner for positive or negative feedback on their strengths or weaknesses. We find that participants who chatted with a close friend and who asked for negative feedback sent more messages over Facebook and spent longer on the site than those who chatted with a new acquaintance and received negative feedback.

Finally, in study 5 we explore how pleasant interactions with new versus close friends are. Participants were asked to consider their recent interactions with a new versus close friend and to indicate how pleasant their relationship was. We find that since long-standing friends exchange more negative feedback, those relationships are considered less pleasant while new relationships are considered more pleasant as new friends rarely exchange negative feedback.

The Pursuit of Happiness: Time, Money, and Social Connection

Cassie Mogilner, University of Pennsylvania*

When a sample of 127 American university students were surveyed about their feelings related to money, "happiness" was the most frequently cited emotion. This reflects the common assumption that money is critical for pursuit of the American Dream and individuals' inalienable right to be happy. However, psychologists have found a surprisingly weak relationship between money and happiness (Aknin, Norton, & Dunn, 2009; Diener & Biswas-Diener, 2002; Kahneman et al., 2006). How can researchers reconcile the general belief that money and happiness are closely associated with empirical demonstrations suggesting the two are largely unrelated?

Incorporating the role of time—the other principle resource that governs daily behavior—may shed light on this question. For instance, research exploring national allocations of time reveals that as wealth in the United States has increased, so has the number of hours Americans spend working, and happiness levels have remained unchanged. In contrast, in response to economic gains, Europeans have decreased the number of hours spent at work, and happiness levels in Europe have increased (Layard, 2005). Ignoring the role of time may, therefore, resign researchers to an impoverished understanding of happiness.

Compared with the considerable amount of work exploring the relationship between money and happiness, surprisingly little research has focused on the relationship between time and happiness (Aaker, Rudd, & Mogilner, 2010). This research therefore focuses on the influence of both time and money. However, instead of looking at the effect of having each resource, it examines the broader impact of merely thinking about one resource versus the other. One field experiment and two laboratory experiments tested whether directing attention to time (vs. money) can improve Americans' pursuit of happiness by driving individuals to allocate their time in happier ways—with loved ones, rather than working.

The first experiment consisted of an online study conducted amongst a national sample of adults. Participants first completed a scrambled-words task that primed them with time-related, money-related, or neutral words (Mogilner & Aaker, 2009) and then were asked to complete an ostensibly unrelated questionnaire in which they were presented with a list of activities that comprise people's daily lives (Kahneman et al., 2004). Participants rated the extent to which they planned to engage in each activity over the next 24 hr, as well as how happy doing that activity would make them. The happiness ratings were in line with the results from prior research

(Kahneman et al., 2004) showing that socializing and engaging in intimate relations were the activities associated with greatest happiness, whereas working and commuting were the two activities associated with the least happiness.

An examination of participants' planned behavior showed that compared with the neutral prime, the time prime increased participants' intentions to socialize and engage in intimate relations, whereas the money prime reduced participants' intentions to engage in these activities. Compared with the neutral prime, the time prime reduced participants' intentions to spend time working and commuting, whereas the money prime increased participants' intentions to work. These results suggest that increasing the relative salience of time motivates individuals to engage in socially connecting activities (those activities that make people most happy), whereas increasing the relative salience of money reduces this inclination.

A simplified version of the first experiment was then conducted in a sample of low-income Americans to assess whether the effect would persist among individuals whose money is particularly scarce and whose daily plans are constrained by the need to make financial ends meet. The results revealed that compared with participants in the control condition and those primed with money, those primed with time planned to spend more time socializing and marginally less time working. There were no significant differences in planned behavior between participants in the control condition and those primed with money. These results suggest that even among individuals whose money is particularly scarce, increasing the salience of time is effective in motivating interpersonal connection. The lack of difference in planned behavior between participants who were primed with money and those in the control condition is perhaps more interesting, raising the possibility that low-income individuals are chronically reminded of money.

Finally, a field experiment was conducted to test whether the subtle activation of time (vs. money) can influence not only how individuals plan to spend their time, but also how they actually spend their time. Conducted at a university café, this experiment primed individuals entering the café with time, money, or neither using the same scrambled-task. Participants were then left free to do as they pleased at the café while their behavior was coded by an inconspicuous observer. Upon exiting the café, participants completed a second questionnaire in which they rated the extent to which they felt happy.

The results showed that individuals primed with time spent more of their time at the café socializing than those primed with money, and individuals primed with time spent less of their time working than those primed with money. Comparing the control condition with the time and money conditions suggested that the activation of time and the activation of money both played a role in the effect. A subsequent examination of participants' reported happiness while exiting the café revealed that participants primed with time were happier than those primed with money, and this was mediated by the amount of time they had spent socializing.

Together, these results suggest that increasing the relative salience of time (vs. money) can increase happiness by leading people to behave in more connecting ways.

8.1 Individual Papers: Public Policy and Decision Making

Room: Grand Ballroom A

Chair: William Richerson, University of Kentucky

When the Doctor Speaks: Consumer Interpretation of Drug Information

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When making decisions involving risk, consumers are often presented with multiple pieces of information to consider. For instance, consumers are likely concerned about the side effects of potential medications, yet information about side effects may vary across multiple dimensions (e.g., level of severity, total number, and likelihood/frequency of occurrence). Consumers may consult a variety of sources, such as doctors, websites, and even advertisements to obtain this information. In this research, we examine how the source of information impacts consumers' ability to incorporate multi-dimensional product attributes (e.g., side effect information) into judgments of risk.

Prior research on how consumers use severity, number and frequency of side effects to construct risk judgments has yielded mixed results. Some studies have found that consumers are sensitive to all three factors (e.g., Berry, Michas, and Bersellini 2002) while others have suggested that only the number of side effects matters (Davis 2000). Still, others have reported that severity is most important (Berry, Michas, and de Rosis 1998). In contrast, Waters et al. (2009) found evidence supporting a "mere presence" explanation whereby consumers simply respond to the presence or absence of side effects, but are insensitive to the number of side effects. Consumers' affective state may also affect their ability to trade-off dimensions such as severity and likelihood of side effects. A study by Cox, Cox, & Mantel (2010) found that risk perceptions of participants in a positive mood were based on both side effect severity and likelihood, compared to those in a neutral mood, who based judgments only on the severity.

One component that varies across these studies, but has not been explicitly considered as a manipulated factor, is the source of information (e.g., drug information leaflet, doctor, etc.). However, consumers' perceptions of the importance of each of these information sources are markedly different (Kim and King 2009). For example, doctors are considered more important prescription drug information sources than package labels and magazine advertisements. More specifically, these sources may vary in many other ways that could alter perceptions. For example, doctors are a much more personal source of information than drug pamphlets and this relationship could change consumers' general level of affect or comfort viewing the information. Further, consumers may have different expectations regarding the types of information each source would provide and/or the credibility of this information. Thus, we expect the source of information to moderate the degree to which consumers integrate severity and/or total number of side effects into their risk judgments. Specifically, as importance increases or affect becomes more positive, consumers should be more willing or able to consider multiple attributes. Thus, we predict consumers will be more likely to incorporate both the number and severity of side effects into risk judgments when the source of information is a doctor (vs. a drug leaflet).

To test this hypothesis, we conducted a 2 (source: doctor, leaflet) x 2 (side effect severity: severe, mild) x 2 (number of side effects: many, few) between-subjects experiment. Participants read a scenario asking them to imagine they had been diagnosed with pneumonia and were prescribed a (fictitious) medication called Epidoxin which had some side effects. Side effects were selected

based on a pre-test, and this information was described as being communicated by the doctor or a drug pamphlet. As expected, the drug was perceived as riskier when the side effects were severe ($M_{\text{severe}} = 4.7$, $M_{\text{mild}} = 3.5$, $p < .0001$) or many ($M_{\text{many}} = 4.4$, $M_{\text{few}} = 3.9$, $p < .01$). There was no main effect for the source of information ($p > .3$). However, as expected, there was a significant source \times number \times severity interaction ($p < .05$), such that the number of side effects affected risk perceptions only when they were mild and communicated by the doctor (doctor-many-mild condition). Differences in affect and arousal do not explain this finding.

Rather, we believe participants were more likely to consider the number of side effects in this doctor-many-mild condition because of participant expectations regarding the type of information they should receive from a given source. Patients may not anticipate a doctor going over a long list of potentially mundane information (i.e., many mild side effects), whereas leaflets may be expected to contain more comprehensive information. According to schema theory (e.g., Sujan, Bettman, and Sujan 1986), consumers are more likely to process information in an affective-manner when information is in line with expectations, or schema-consistent. Perhaps violating expectations leads participants to process the information more analytically than affectively, leading to an increased likelihood of incorporating the number of side effects into judgments (cf., Hsee and Rottenstreich 2004). We intend to test this explanation in a second study by examining differences in expectations for information provision across information sources. This study will also seek to replicate the results from study 1 and extend them to additional sources (e.g., advertisements).

The results from this research help advance knowledge about consumer ability to integrate multiple attributes into risk judgments. Our results suggest that affective/arousal explanations identified in previous research may be missing an important factor and that the consumer expectations about the source of information may play an important role in consumer risk perceptions. Our results also have important implications for patient/provider communications. Consumers generally indicate a desire to receive complete information about medications (e.g., Ziegler et al. 2001; Davis 2007) including full disclosure of potential side effects (Faden et al. 1981; Keown et al. 1984; Berry et al. 1995; Mottram and Reed 1997). However, physicians express concern about being overly forthcoming with side effect information because they fear this information may unduly bias consumers against treatment options and/or decrease compliance (e.g., Lamb, Green, and Heron 1994; Berry, Michas, Gillie, and Forster 1997). Our results suggest information source may influence the validity of these concerns and thus, providers should consider how the information source affects perceptions when disclosing information.

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Green Means Go: The Influence of Tacit Environmental Cues on Consumption and Choice

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Marketing 101 suggests that efficient marketers do not attempt to sell their product to every possible consumer but rather segment, identify an intended target market, and specifically position marketing communications to the selected target market. This marketing paradigm is built on the fundamental assumption that consumers within the selected target market are significantly more likely to purchase a product than those excluded from the target market. Thus, almost by definition, more consumers are excluded than included in the traditional approach.

Research from psychology suggests that this approach, however useful, may not be the *only* solution. More specifically, psychological studies employ priming methodologies to systematically influence randomized samples of otherwise disparate participants to behave in remarkably similar ways. These “in the moment” cues, whether explicit or implicit, lead to predictable behavioral outcomes so consistently that the same primes are often used in a variety of contexts to produce reliable effects.

The present paper was inspired by the following premise: if we know that individuals can be influenced by subtle cues in the moment in predictably reliable ways, then it might be possible that consumers, in general, can be made more or less likely to make a consumption choice via the influence of tacit contextual cues regardless of their target market membership. To test our theory, we presented participants with a variety of consumption decisions, including initial product choices and preferences, as well as actual consumption behaviors, varying only by the nature of the tacit cues present during the decision-making. The cues included all relate in that they are culturally-specific markers of fluency: green for going, red for stopping; holiday-themed favors during holidays, non-themed favors for non-holidays, etc. The cues indicate what *feels right*, and what feels right is what we do.

In our first study, participants were given one of three plates – a white plate with a green border, a white plate with a red border, or a white plate with no border. Participants were then presented with food options and asked how many servings they would like to have of each food item. The results indicated that participants provided a green-bordered plate put nearly 33% more food on their plate than those given red plates. In a funneled debrief, no participants indicated an awareness of the color of their plate’s border or that the plate even had a border, yet it seemed the color of the border emphasized the culturally-prescribed cue of continuing (green) or stopping (red).

In a follow up study, participants played a word game in which they solved anagram puzzles. After every ten puzzles participants were asked if they wanted to continue the game or stop playing, and at the end of the game participants were asked how much they enjoyed the experience. Response times were also recorded. Participants were randomly assigned to one of three conditions: the game presented in the context of a thin green border, a thin red border, or a thin black border (control). As predicted, participants in the green border condition spent more time playing the game, actively selected to solve more anagrams, and reported enjoying the experience significantly more than participants in the red border condition. No participant reported seeing a colored border, and again results support the idea that green subtly encouraged engagement while red encouraged disengagement. Continuing a game when you “see” green feels right (i.e., is fluent), but continuing when you “see” red does not.

Next, we wanted to test for the robustness of our theory beyond color as a tacit cue for consumption. To achieve this goal, we conducted a study on the Fourth of July using festive, holiday-themed patriotic plates and a control plate identical in size, texture, and weight without a patriotic design. Again, we found that participants given the holiday-themed plate were likely to put more food (25% more) on their plates than those in the control condition, suggesting that the holiday-theme served as a subtle cue to engage. Eating off a holiday plate when it is that holiday is the fluent choice and feels right. Follow-up studies are being conducted using other holiday themes to see if mismatched holiday plates yield the opposite effect.

To more directly pit the results of priming fluency with the results of a traditional marketing approach, we plan to extend our findings to a realistic shopping setting with pre-tested products with defined “target users.” Fluency will be manipulated and target user-ship will be assessed as well as manipulated. The goal is to demonstrate an additive, orthogonal effect of priming. That is, our findings suggest that *all* consumers, regardless of target market membership, become more likely to consume when presented with fluent cues and less likely to consume when presented with disfluent cues. However, it may be possible that an interaction between the traditional target market model and our proposed fluency model exists such that the boost due to fluency priming is stronger for target market

consumers than non-target market consumers. These results would suggest that marketing managers can benefit in two critical ways: 1) getting historically non-target market consumers to purchase, and 2) getting target market consumers to purchase *more* – both via the same, simple fluency cues. Practically speaking, this encourages greater consideration for fluency during consumption processes, an area not explored in consumer research.

Overall, the traditional marketing practice of segmenting, targeting, and positioning certainly has merit – targeting gender-specific, age-specific, or other specialized products outside of an obvious target would be wasteful – but for products that could potentially appeal to “the masses,” the traditional marketing approach may be selling consumers and companies short. Target market consumers may not buy in the moment if the wrong cue is present, just as non-target market consumers may purchase in the moment when the right cue is present. Thus, the current paper suggests that *all* consumers have the potential to be “target consumers,” and that both marketers and consumers should focus more attention on the importance of the subtle influences in consumption contexts that can directly impact the bottom line.

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“Old Age Isn't So Bad When You Consider the Alternative”: How Older Adults Make Good Decisions

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In the developed world, the number of adults over the age of 60 is expected to grow from 21% of total population in 2009 (264 million) to 33% of the population in 2050 (416 million) (United Nations 2009), surpassing the number of young persons (under 15) for the first time in history (Peters et al. 2007). This has dramatic implications for public policy, as this growing cohort places increased pressure on limited resources, such as health care and community services. Consumer psychologists are also concerned, as the prevailing view is that judgment and decision-making processes decline with age, with attendant problems such as increased susceptibility to fraud (Fleck 2010) and difficulty processing information related to difficult and important decisions, such as those relating to health care and finances (Carstensen et al. 2009). However, a growing body of research is establishing that, while some degree of cognitive decline is inevitable, it may not be as acute as we have previously thought. In fact, increasing evidence is demonstrating that older adults are in fact *better at* some facets of information processing and decision-making than younger individuals. In this paper we will highlight those areas, identify possible reasons why these two conflicting research perspectives have developed, and suggest potentially positive implications of taking a modified view of aging. Through this, we hope to answer some of the questions for further research presented in a JCP issue dedicated to the topic of consumer decision-making and aging (Schwarz 2009).

There is no doubt that the brain's physiology is affected by aging, such as a decrease in actual brain size and degraded neural activity, but these effects have also been shown to be highly dependent on overall health and lifestyle factors (Raz & Rodrigue 2006). Some parts of the brain remain largely unaffected by aging, such as the amygdala, which controls the interaction of emotion and memory (May et al. 2005), while other parts, such as myelin (the so-called “white matter” that helps people identify connections and engage in big picture thinking), actually grow (Strauch 2010).

The cognitive deficits of the aging brain have been well-catalogued, and some are unambiguously negative, such as declines in processing speed and reduced availability of cognitive resources to process new, and especially complex, information (Blanchard Fields 2007). Others point less clearly to diminished capacity; for example, reduced decision consistency (Finucane et al. 2002) may be more due to issues that could be expected with retrieval and storage in all of short-term, long-term and working memory (Carstensen et al. 2006) due to the sheer volume of information in those memories. Additionally, executive processes associated with emotion-related working memory remain relatively unimpaired by age (Mikels et al. 2005). Deliberative abilities become less efficient (Peters et al. 2007), which can affect ability to identify true & false information when making judgments (Chen 2002, Johnson 1993), but that has been shown to be highly context-dependent, and more automatic and well-learned tasks and systems are not similarly affected by age (Yoon et al. 2005).

Older adults even get better at some things, particularly those related to processing and regulating emotion (Charles & Carstensen 2009). Two well-supported theories address emotional regulation across the aging process: Socioemotional Selectivity (SST) (Charles & Carstensen 2004) and Dynamic Integration Theory (DIT) (Labouvie-Vief 2003). The former suggests that when information is presented in more social or emotional terms, older consumers' memory for the source was the same as that of younger consumers, while the latter proposes that affect becomes relatively more influential as cognitive abilities decline with age, and that older consumers seek to maximize positive affect. Although empirical results have not conclusively supported one theory over another, evidence does show that emotionally-relevant messages are particularly appealing to older adults (Yoon et al. 2005), and memory for emotional information, particularly for positive information, appears to be better preserved with age (Peters et al. 2007). Negative emotion is reported and observed less among older adults, who also report less anxiety, greater contentment, and a greater overall psychological well-being (Charles & Carstensen 2009).

While younger adults tend to rely more heavily on deliberative processing when making decisions, older adults instead draw on experiential processing, using heuristics and affect to assess information at a schema level (Slovic et al. 2005; Yoon 1997). In addition to being more efficient in its use of cognitive resources, this experiential system may actually be more advanced than deliberative processing (Reyna 2004), and older adults who employ these strategies generally arrive at the same decisions as younger adults who use more analytic strategies (Johnson 1993). All of this means that older adults are better able to acknowledge and control their emotions, solve emotionally-charged problems, endure the tension of mixed emotional experiences, and are more tolerant of emotional ambiguity than younger adults (Williams & Aaker 2002, Williams & Drolet 2005, Charles & Carstensen 2009).

From a methodological perspective, these findings have some profound and specific implications; namely, the way that experimental research assesses the quality of decisions may be biased towards cognitive and deliberative processing and therefore almost certainly more likely to result in poor performance in older adults than other more emotional or experiential types of processing. In addition to being constrained by cognitive resources, it is also likely that older adults may apply different standards for evaluating optimal choices. Most decision-making research examines the phenomenon from a perspective where the process is motivated by accuracy goals (Simonson 2008). Yet the SST suggests that shifts occur in older adults' motivations as time horizons shrink, with more emphasis being given to emotion regulation (Charles & Carstensen 2009), which consequently has implications for what they may consider to be "best" choices. Rather than being motivated by objective standards of accuracy and optimization, they are likely to be driven more by socio-emotional concerns.

Given this, it is reasonable to suggest that a revamping of both theory and method may be required in order to fully understand this demographic and to address outstanding measurement and validity issues. For example, standard experimental methods may themselves be off-putting for many older adults. Instead, alternative approaches that recognize and allow individuals to employ

strategies and processes they have adapted to maximize their current level of ability may yield a better understanding of the underlying processes by which they make decisions. Additionally, many studies of this demographic group have recruited participants from nursing homes and hospitals, which may be partly to blame for finding diminished capacity and reduced adaptation (Strauch 2010), and at the very least is unlikely to be unrepresentative of this group. In the full version of this paper we suggest specific alternatives to tackle these issues as a way of offering new perspectives and approaches for better understanding this important and growing demographic group. In doing so, we are endeavoring to contribute to the call for examination of the “far reaching implications of an aging population for core issues of consumer research” (Schwarz 2009).

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All for One: The Influence of Entitativity on Charitable Giving

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People react strongly to charitable appeals for individual victims. However, when it comes to helping large numbers of victims, charitable reactions are typically muted (see Slovic, 2007 for a review). For example, people tend to donate more to a single identified victim than to a large number of statistical victims (Small, Loewenstein, & Slovic, 2007). The apathy for large numbers of victims relative to the generosity to single identified victims has been decried as virtually impossible to overcome (Slovic, 2007). It is seen as tragic and an inefficient use of public resources, and blamed as one reason for the weak response to several large-scale genocides throughout history (Slovic, 2007). A prominent account for such findings is that people can emotionally connect with a single identified victim but not with large numbers of victims. In line with this explanation, victims identified with names and pictures yielded more sympathy and donations than unidentified victims (Small et al., 2007).

Much of the work in this area has attempted to understand the reasons behind people’s disproportionate reaction to a single victim (e.g., Small et al., 2007). We examine the other side of this phenomenon—reactions to large numbers of victims. Kogut and Ritov observed no effect of identifiability when a donation appeal concerned multiple victims (2005a; 2005b). We hypothesize that reactions to large numbers of victims may be muted in part because they lack the features of a coherent entity which individuals naturally possess: Perceived “entitativity” results in stronger perceptual and emotional reactions for an individual than a group (Hamilton & Sherman, 1996). Indeed, in three studies, we show that donations to large numbers of victims can be higher when these victims compose a meaningful entity.

Research finds that, when assessing highly entitative groups, people attempt to extract their underlying essence, just as they do for individuals (Yzerbyt, Rocher, & Schadron, 1997). Attributions, emotional reactions, and behavior are magnified in response to perceived entitativity such that people respond to an entitative group as if it was a single individual. Entitative groups also elicit stronger judgments than non-entitative groups (Thakkar, 2006). The magnification of responses for entitative groups can result in more positive as well as more negative impressions (Thakkar, 2006).

In three studies, we manipulate the number of victims and the way in which multiple victims are presented (disaggregated or unitized). In Study 1, hypothetical donations were made to save 1, 200 or a herd of 200 gazelle. Though participants’ donations were not

different for 1 and 200 gazelle, donations were significantly higher for a herd than the disaggregated 200 gazelle. This effect was statistically explained by greater concern for unitized than disaggregated victims. In Study 2, participants completed a modified Navon task that primed unitization by encouraging Gestalt or nonGestalt processing of subsequently viewed stimuli. Gestalt-primed participants donated more to the disaggregated 200 gazelle than nonGestalt-primed participants. Study 3 involved actual donations to help children and families. Pretests indicated that the families were perceived as more entitative than disaggregated children. Though donations were lower for 6 disaggregated children than for a single child, donations were significantly higher when the same six children were said to belong to a family. Donations were also solicited for child prisoners, and as entitativity research would predict, the donation pattern reversed for children with negative attributes: Donations were lower for the family of 6 child prisoners than the disaggregated 6 child prisoners. Once again, participants' concern explained these effects. Additional testing revealed that presenting positive victims as a single unit increased judgments of them but that presenting negative victims as a single unit decreased judgments of them.

These results show that the increased concern that underlies the assessment of a single victim can also extend to entitative multiple victims. Presenting multiple positive victims as a single entitative unit increases concern and donations. This unitization can occur conceptually through semantic descriptions or perceptually through priming. These results suggest a simple way to increase altruistic behavior toward multiple victims, but also reveal an unfortunate effect to unitizing some victims. We show that unitization effects reduce altruistic behavior toward victims with negative attributes. In these cases, concern and donations are higher if multiple victims are presented as disaggregated. This reversal, as well as our finding that Gestalt priming increases donations, shows that it is perceived entitativity and not other aspects of the herd and family unitizations that drive our effects.

This research both directly contributes to research on charitable giving to multiple victims and also joins a growing body of research on biases in valuation. Our results show that the "identified victim effect" of higher donations to single identified victims generalizes to entitative groups, and suggest that Kogut and Ritov's (2005a; 2005b) observation of decreasing donations for more identified victims can be attributed to decreasing entitativity.

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8.2 Individual Papers: Product Endowment and Valuation

Room: Pine Room

Chair: Neil Brigden, University of Alberta, Canada

Predicting the Endowment Effect: Does Being in the Same Shoes Help?

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People do not make decisions in a social vacuum. Perspective taking shapes our perception of the world around us and thus, our consumption decisions. However, an accurate understanding of others' perspective cannot be easily achieved since perspective taking is often subject to egocentric biases (e.g., Van Boven, Dunning, and Loewenstein 2000; Van Boven and Loewenstein 2005). The goal of this research is to examine the economic magnitude of failed perspective taking by consumers in the context of endowment.

Specifically, we investigate whether owners (or sellers) and buyers systematically mispredict the valuation of an object by other people in the same role. This is an important question to address since biased predictions of valuations of others in the same role may lead sellers and buyers to engage in transactions that are suboptimal (e.g., buyers may overbid for a house). In addition, post-transaction upward external comparisons in trading (e.g., Is the price I paid higher than the price others in a similar situation paid?) have been shown to negatively impact both buyers' and sellers' satisfaction with a transaction (Novemsky and Schweitzer 2004).

We maintain that even being in the shoes of others (e.g., being an owner and estimating valuation of other owners) does not enable people to accurately predict the endowment effect. We base our prediction on previous research suggesting that individuals underestimate the intensity of emotional states held by others in the same role (e.g., Loewenstein 1996; Faro and Rottenstreich 2006), resulting in self / other differences in the value function. Accordingly, we argue that owners fail to appreciate the extent to which endowment affects other owners, whereas buyers fail to realize the extent to which lack of ownership affects other buyers. Specifically, we predict that owners underestimate the average selling price demanded by other owners, whereas buyers overestimate the average purchase price offered by other buyers. In conjunction, biased estimations by both groups will translate into failed prediction of the endowment effect.

In Study 1, participants ("owners") who were endowed with a coffee mug indicated the lowest price at which they are willing to sell their mugs. They then estimated the average lowest price at which other participants would be willing to sell their mugs (\$2 reward was offered to those with close estimations to ensure incentive compatibility). In a separate session, participants ("buyers") who were not endowed with mugs indicated the highest price at which they would be willing to receive the mug instead of that amount of cash. Then, they estimated the average highest price at which other participants would choose to receive the mug instead of cash. As predicted, owners underestimated the average selling price of other owners by 19%. Conversely, buyers overestimated the average buying price stated of other buyers by 26%. The results also show that there is no significant difference in the estimated average valuations between owners and buyers, suggesting that while estimating other people's valuations, the participants do not anticipate the endowment effect.

Previous research (e.g., Ames 2004) has shown that higher level of perceived general similarity to a target is associated with greater social projection and perspective taking. In Study 2, we investigated whether priming similarities between participants and comparison targets (i.e., average undergraduate student at the same university) might reduce the magnitude of owners' and buyers' prediction errors. Participants assigned to the similarity condition were asked to write down "three ways in which you are similar compared to the average undergraduate student at <school name>." Those in the control condition were not given this task. The average prediction error of owners was reduced by 59% in the similarity condition. Furthermore, similarity priming eliminated overestimation by buyers, whereas overestimation in the control condition is still positive. Accordingly, we find that when estimating others' valuations, participants in the similarity condition anticipate the endowment effect, while participants in the control condition again fail to predict the endowment effect.

In Study 3, we measure perspective taking and empathy (e.g., Davis 1983; Galinsky et al. 2008) to examine their impact on participants' estimation errors. We document that greater perspective taking ability is associated with lower estimation errors when participants are high, but not low, in empathy. Overall, the results suggest that owners and buyers with high perspective taking ability and empathy predict others' valuations with the highest accuracy.

Enhanced understanding of the perspective of others in the same role can help consumers avoid suboptimal economic decisions. Our research demonstrates that consumers fail to take an accurate perspective of others even when they are in the shoes of others and that perspective taking can be enhanced by helping individuals consider similarities between themselves and the targets.

Attachment without Possession: Resolving the WTA/WTP disparity

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The notion of what we possess becoming an extension of ourselves is acutely realized by many of us when a scratch on our car gives us immense pain. William James aptly said “between what a man calls me and what he simply calls mine the line is difficult to draw. A man's Self is the sum total of all that he can call his” It is intuitive to predict over-valuing what we own. We buy things to define who we are and over time through this need to define ourselves we start perceiving what we own to be a part of us or extensions of ourselves.

An intriguing question is, how would we value an object which feels like an extension of ourselves but we don't own it. More specifically, in this work we explored if an object is made to feel like part of one's body how would it influence valuation across two conditions: 1) when one owns the object and 2) when one doesn't own it? By answering these questions, we try to disentangle the mechanism responsible for the commonly observed WTA/WTP disparity (also known as the Endowment Effect, Thaler 1980). Two main theories have been used to explain the WTA/WTP disparity. The loss aversion account suggests that selling prices tend to be higher than buying prices because people use reference points to assess any change in their current state. For a seller whose current reference point is ownership of the object, removing the object from the endowment creates a loss. Since losses are aversive, this leads to the seller demanding a higher selling price compared to a buyer for whom obtaining an object (to an endowment without it) appears like a gain (Kahneman, Knetsch, & Thaler, 1991). The mere ownership account suggests that people are reluctant to relinquish the objects they own simply because they associate those goods with themselves (Beggan 1992). This leads sellers to demand more than what a buyer is willing to pay for an object

To understand what is behind WTA/WTP disparity, we utilized neuroscience literature on the malleability of human perception which suggests that the representation of our body is reconstructed moment to moment based on sensory information (Damasio, 1994). An important element in interpreting our embodiment is vision – e.g. how we learn to recognize ourselves in a mirror (Ramachandran 2008). The sense of sight is so strong, that when visual input conflicts with cues from other senses, vision tends to dominate. This dominance has been used to relieve phantom limb pain for amputees. Ramachandran et al. (1998) placed a mirror between an amputee's missing and existing limb. Moving the existing limb by lateral inversion in the mirror made it appear as if the missing limb was moving and eased the pain. Similar visual manipulations by synchronized tapping of a rubber hand and participants' hand have resulted in participants experiencing the sensation that the rubber hand is part of their body (Ramachandran et al 1998, Botvinick and Choen 1998).

Across two studies, we used the tapping manipulation to give a visual illusion that a coffee mug had become a part of the participant's body. The experimenter with her right hand tapped the mug and with her left hand synchronously tapped the participant's hand which was inside a black box. Participants who reported experiencing a sensation of the mug feeling like a part of their body formed the

experimental group while those reporting no feelings formed the control group. Subsequently participants were shown the same mug and randomly assigned to the role of buyers (sellers) and their WTP (WTA) was elicited.

In study 1, WTA/WTP disparity emerged across buyers and sellers in experimental and control groups. However, compared to control group sellers, the sellers in the experimental group (who felt a sensation when the mug was tapped) indicated a significantly higher selling price (WTA). However, there was no difference in buying price (WTP) for the control versus experimental group. Study 2 replicated the findings of study 1 and also found that the experimental-group sellers generated more positive attributes for the mug than control-group sellers. Buyers in both the control and experimental group generated equal number of positive and negative attributes indicating a balanced view.

The loss aversion account would not predict any change in the difference between WTA and WTP across control and experimental groups since the tapping manipulation doesn't alter buyers and sellers reference points. The ownership account would predict an increase in both WTP and WTA from control to experimental conditions as a result of the tapping manipulation (we document change in only WTA). Our pattern of result is inconsistent with both of these accounts and hints towards a more nuanced view in which possession strongly influences sellers' WTA while reference point influences buyers' WTP.

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Catching More Flies with Vinegar: The Ironic Effect of Product-Specific Search Cost on Consumer Choice

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When consumers search what is available in the market before making a purchase, search costs often vary across alternatives – i.e., more effort is required to obtain information about some alternatives than others. The present research examines how such differential search costs influence consumer choice.

A traditional economic perspective suggests that higher search costs can only reduce an alternative's choice share, simply because fewer consumers will learn about that alternative and, thus, have the opportunity to choose it.

By contrast, we propose that higher search costs can actually *increase* an alternative's choice share because these costs influence decision making even after the search phase has been completed. Prior work has shown that a piece of information can become more influential when its acquisition requires effort (Bastardi and Shafir 1998). Similarly, when learning about entire alternatives (rather than inspecting individual pieces of information) is costly, having incurred a somewhat higher – although not prohibitive – cost to find out about a particular alternative, a consumer might be more inclined to purchase that alternative. We propose that this effect is driven by a combination of two mental mechanisms. (1) The acquisition of information about an alternative for which search cost is comparatively high increases a consumer's commitment to that alternative in line with a sunk cost fallacy, whereby individuals exhibit a greater tendency to continue an endeavor once an investment in money, time, or effort has been made in connection with it (Arkes and Blumer 1985). (2) Choices are influenced by a self-perception process (Bem 1967, 1972) whereby consumers use their own

search behavior, and in particular the effort they have expended to acquire information about specific alternatives, as a basis for making inferences about their relative preference for these alternatives.

We present evidence from three experiments demonstrating that these effects can be sufficiently strong to offset the fact that higher search cost for an alternative results in fewer consumers learning about that alternative in the first place. In each experiment, participants in the key experimental condition saw one alternative (the “competitor”), and had the option of incurring an additional search cost to inspect a second alternative (the “target”). Search cost was operationalized in terms of physical distance (Experiment 1), mouse clicks (Experiment 2), or money (Experiment 3). The specific alternatives that served as target and competitor were always counterbalanced.

Across all three experiments, the target alternative (which had a higher search cost) was more likely to be chosen than the competitor. Experiment 1 demonstrates the proposed effect in consequential choices of granola bars. Participants were initially presented with one flavor of granola bar. They could either choose that bar or walk to the opposite end of the room to see, and have the option of selecting, a second flavor – i.e., the target alternative. (Both flavors were available at the far end of the room so that participants who decided to learn about the target alternative would not need to incur additional costs if they subsequently chose the competitor). The majority of participants in this study chose the target alternative. Experiment 2 used an online shopping task involving a choice between two products in each of six categories. Search cost – in terms of the number of mouse clicks required to learn about an alternative – was either identical for the target and the competitor or it was higher for the target. In the differential search cost condition, the target was more likely to be chosen (despite its higher cost of search), whereas these two alternatives were equally likely to be chosen when their search costs were identical. Experiment 3 involved consequential choices among gambles. In this study, we sought to rule out a pure sunk-cost-fallacy explanation of the effect by refunding the (monetary) differential search cost whenever participants decided to obtain information about the target alternative but then chose the competitor. Although the higher search cost for the target was fully recoverable – and therefore not “sunk” – if that alternative was ultimately not chosen, the target alternative was still more likely to be chosen. This provides direct support for the proposed search-cost-based self-perception effect on preference.

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8.3 Individual Papers: Specific and Mixed Emotions

Room: Birch Room

Chair: Rhiannon MacDonnell, Haskayne School of Business, University of Calgary

The Effect of Regulatory Focus on Coping with Ambivalence

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Comparing one’s attitudes to others’ attitudes is a common and informative human behavior (Eagly and Chaiken 1993). Yet, such communication can result in disagreement: we like a product or believe that it has positive attributes, while an important other dislikes the product or believes that it has negative attributes. As a consequence of this conversation, the product may seem neither

indisputably positive nor entirely negative. What might individuals do under such circumstances? Continue their product search? Buy the product anyway?

The focus of this research is on how individuals cope with conflicting product information, especially when it comes from disagreements with others. Obtaining opposing product information (i.e. both positive and negative simultaneously) can result in feeling torn and conflicted—that is, feeling ambivalent. Ambivalence can occur when disagreeing with an important other, such as a friend or parent or when personally holding mixed feelings about an object—that is, interpersonal versus intrapersonal ambivalence, respectively (e.g., Priester and Petty 2001). Because of the negative emotions aroused by ambivalence (Thompson et al. 1995), individuals are motivated to find ways to cope with it. Among the behavioral efforts for coping with ambivalence are to delay choice versus make a choice (e.g., Otnes, Lowrey, and Shrum 1997). We argue that regulatory focus influences individuals' coping strategies. Specifically, we hypothesize that because prevention-oriented individuals are motivated to avoid mistakes (e.g., Crowe and Higgins 1997), they will be more willing to delay choice and continue their product search. In contrast, because promotion-oriented individuals are concerned with advancement and are likely to adopt an approach strategy (Higgins 2002), they will be more willing to make a choice and buy the product.

In study 1, we administered a survey to Hispanic parents and daughters at a Wedding and Quinceañera (a Mexican celebration of a girl's fifteenth birthday) expo. The experiment was a 2 (role) x 2 (source of disagreement) design. The role factor was measured (participants were either parents or daughters), and the source factor was manipulated. Specifically, everyone read a scenario in which the daughter disagreed with either a parent or a friend about a dress. We expected and a pretest confirmed that disagreeing with a parent (vs. friend) prompts participants to think more about the daughters' duties and obligations (vs. goals and aspirations) and thus a prevention- (vs. promotion-) focus. Consequently, disagreeing with a parent (vs. friend) should cause participants to be more willing to continue looking and less willing to buy. As predicted, daughters were (and parents expected their daughters to be) more willing to continue looking when disagreeing with a parent than a friend ($M_s = 6.60$ vs. 5.22 , $F(1,110) = 4.62$, $p < .05$), and to buy anyway when disagreeing with a friend than a parent ($M_s = 7.24$ vs. 5.92 , $F(1,110) = 4.84$, $p < .05$).

In study 2, we test the robustness of our findings by varying who likes the product while holding constant the source of disagreement (friend) and changing the product to a smart phone. The experimental design was a 2 (regulatory focus) x 2 (friend's attitude) experimental design. For the regulatory-focus factor, we asked participants to consider their hopes and dreams (promotion-focus) or duties and obligations (prevention-focus) (e.g., Higgins 1998). For the friend's attitude factor, we told participants that they like the phone (but their friend dislikes it) or they dislike the phone (but their friend likes it). As predicted, regardless of whether they personally like or dislike the product, willingness to buy anyway was higher among promotion- than prevention-focused individuals ($M_s = 5.20$ vs. 4.34 , $F(1, 237) = 7.96$, $p < .01$), whereas willingness to continue looking was higher among prevention- than promotion-focused individuals ($M_s = 4.18$ vs. 3.34 , $F(1, 237) = 4.88$, $p = .03$).

In study 3, we further test our hypotheses by varying whether ambivalence is interpersonal versus *intrapersonal*. We predict that regardless of the type of ambivalence experienced, prevention- (vs. promotion-) focused participants will be more willing to continue their search, and less willing to buy the phone anyway. We used a 2 (regulatory focus) x 2 (ambivalence type) experimental design. We manipulated regulatory focus by asking participants to complete a reading comprehensive test of either a promotion- or prevention-oriented ad adapted from Aaker and Lee (2001). For ambivalence type, participants were either told they were aware of both pros and cons of the phone (intrapersonal ambivalence) or they were aware of pros, but their friend was aware of the cons of the phone (interpersonal ambivalence). As expected, regardless of type of ambivalence, willingness to buy the phone anyway was higher

among promotion- than prevention-focused participants ($M_s = 5.28$ vs. 3.95 , $F(1, 80) = 4.86$, $p < .05$), whereas willingness to continue looking was higher among prevention- than promotion-focused participants ($M_s = 6.43$ vs. 5.42 , $F(1, 80) = 2.61$, $p = .05$).

However, we propose ambivalence type should interact with regulatory focus to affect how much participants are willing to pay for the phone (WTP) and whether they would buy a compromise option. There is evidence suggesting that individuals are more self- than other-oriented when they are promotion (vs. prevention) oriented (e.g., Lee, Aaker and Gardner 2000). As a consequence, we expect that promotion- (vs. prevention) oriented individuals will be less (vs. more) affected by ambivalence type when valuing the product and when given a compromise option. As predicted, prevention-focused participants' WTP was significantly lower when ambivalence was interpersonal than intrapersonal ($M_s = \$210.87$ vs. $\$294.33$, $F(1, 80) = 6.09$, $p < .05$), whereas this difference was non-significant for promotion-focused participants. We also found that more prevention-oriented participants chose the compromise option when ambivalence was interpersonal than intrapersonal (41.7% vs. 5.6% , $\chi^2 = 6.94$, $p < .01$), whereas fewer promotion-oriented participants chose the compromise option regardless of ambivalence type. These findings suggest that prevention-oriented individuals are more sensitive to the source of ambivalence (interpersonal vs. intrapersonal) than promotion-oriented individuals when valuing the phone and considering a compromise option. Collectively, these studies highlight the behavioral consequences of ambivalence as well as introduce regulatory focus as an important moderator for coping with ambivalence.

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On the Relationship between Humor and Brand Attitude

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Humor is generally enjoyed by consumers and assumed to benefit marketers (Beard 2005; Eisend 2009; Roman and Maas 1976). Although humor is pervasive in marketing, we highlight a potential risk of pursuing humor: humor attempts risk harming brand attitudes. In accordance with the benign violation theory (BVT; McGraw and Warren 2010; Veatch 1998), we propose that humor occurs when a violation is simultaneously interpreted as benign. If a violation is necessary for humor, the presence of a violation may arouse negative emotions, which can have a substantial negative effect on brand attitudes. Thus, one reason for the equivocal relationship between humor and brand attitude observed in the literature (Eisend 2009; Weinberger and Gulas 1992) may be that researchers typically do not measure the negative emotions that frequently accompany humor.

Studies 1a and 1b explored the relationship between perceived humor, negative emotion, and brand attitude in two samples of print advertisements. Study 1a used 60 print advertisements assembled using three searches on Google Images. Specifically, we took 20 ads identified using each of the following searches: "funny print advertisement," "offensive print advertisement," and "print advertisement." Study 1b used 36 advertisements created by asking marketing students to craft a humorous headline for a fictional online retailer. Participants rated each advertisement on perceived humor, negative emotional reactions, or brand attitude. In both studies, negative emotions predicted brand attitude better than perceived humor. Regression analyses revealed a strong negative effect of negative emotion on brand attitude ($\beta_{\text{Study 1a}} = -.64$; $\beta_{\text{Study 1b}} = -.53$) and a positive but weaker effect of perceived humor ($\beta_{\text{Study 1a}} = .26$; $\beta_{\text{Study 1b}} = .07$).

In study 2 we explored whether the effect of humor on brand attitude depends on the type of violation used to create humor. Different violations may be equally effective in creating humor, but elicit different emotional and behavioral reactions (Han, Lerner, and Keltner 2007; Rozin 1999). For example, humor created through purity violations, which tend to elicit disgust and withdrawal (Chapman et al. 2009; Hemenover and Schimmack 2007), may hurt brands more than humor created through harm violations, which tend to elicit anger and approach (Carver and Harmon-Jones 2009). Participants viewed one of three advertisements for a fictional cola: a control ad not depicting a violation, a humorous ad depicting a purity violation, or a humorous ad depicting a harm violation. Although participants found the two ads depicting a violation equally humorous ($p > .2$), they reported lower brand attitudes and less interest in drinking cola when humor was created by depicting a purity violation rather than a harm violation ($ps < .01$).

Study 3 tested our predictions across the marketing mix. We contrasted product, distribution, pricing, and promotion tactics depicting benign violations with similar tactics not depicting violations. For example, we compared reactions to a store that institutes a pricing policy that blatantly discriminates against wealthier, monolingual English speakers (i.e., a sign reads: Orange Juice \$5; Jugo de Naranja \$4) with reactions to a store that charges all customers the same price (the sign reads: Orange Juice \$5; Jugo de Naranja \$5). Most consumers consider blatant price discrimination unfair (i.e., a violation; Xia, Monroe, and Cox 2004). However, the discrimination may simultaneously seem benign both because it can be justified by an alternative norm (the monolingual English speakers can probably afford to pay the extra dollar) and because the discrimination is psychologically distant (it is geographically far away and victimizes other people). Participants rated perceived humor, negative emotional reactions, and brand attitude in response to one of four marketing tactics (product, distribution, price, promotion). Consistent with the BVT, humor perceptions were greater in response to marketing tactics depicting a benign violation than those not involving a violation. However, benign violations also elicited more negative emotions and led to lower brand attitudes. The observed differences were similar for the product, distribution, pricing, and promotion tactics. Regression analyses revealed a strong negative effect of negative emotion on brand attitude ($\beta = -.56$). The effect of perceived humor was not significant ($\beta = .11$).

Study 4 tested if the relationship between humor and brand attitude depends on whether the absence of humor refers to marketing tactics that do not involve violations (i.e., strictly benign tactics) or to tactics that involve violations that do not seem benign (i.e., malign violations). Although both may lack humor, strictly benign tactics should elicit little negative emotion compared to malign violations. Consequently, although humorous benign violations likely hurt brand attitudes relative to purely benign tactics (see study 3), humorous marketing may help brand attitudes relative to tactics depicting malign violations.

Study 4 tested this hypothesis by adding a third condition to the aforementioned pricing stimuli. We added a malign violation condition in which the store charges poorer, monolingual Spanish speakers \$5 and wealthier English speakers \$4 (i.e., the sign at the store reads: Orange Juice \$4; Jugo de Naranja \$5). The price discrimination here cannot be justified by an alternative fairness norm so should be seen as less benign than discriminating against wealthier English speakers. As in study 3, comparing a benign pricing tactic to a benign violation revealed a negative relationship between humor and brand attitude. Conversely, comparing a malign violation to one involving a benign violation revealed a positive relationship between humor and brand attitude. The discrepant relationship between perceived humor and brand attitude can be explained by negative emotional reactions. Regression analyses revealed a strong negative effect of negative emotion on brand attitude ($\beta = -.60$), but no detectable effect of perceived humor ($\beta = .03$).

Benign violations evoke humor. Arousing humor in the marketing mix, however, is risky because successful and unsuccessful attempts alike may elicit negative emotion, and these negative emotions have a powerful effect on brand attitude. Consequently, the relationship between humor and brand attitude depends on specific benign violation used to create humor and whether this method enhances or reduces negative emotional reactions. Collectively, our studies suggest that (1) marketers attempting to use humor should

be careful of the strategy they use, and (2) researchers attempting to understand the consequences of humor need to measure negative emotion in addition to perceptions of humor.

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The Role of Mixed Emotions in Financial Decision Making

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Recent work has conceptually and empirically differentiated between two emotions – hot hope and cold hope – that have been used interchangeably in past research (MacInnis and Chun 2007; de Mello and MacInnis 2005; Nenkov et al. 2010). According to these researchers hot and cold hope are two distinct constructs that vary on different appraisal dimensions: hot hope varies on the desirability appraisal dimension and cold hope varies on the uncertainty dimension. "Hot Hope" is defined as the degree to which one yearns for a goal-congruent and uncertain but possible outcome. For example, when one says, "I hope I win the lottery" one is expressing that one yearns for this goal-congruent, uncertain but possible, future outcome. Here, variation in hot hope is caused by *more or less desire or yearning* for the outcome in question. "Cold Hope," on the other hand is defined as the extent to which one appraises a goal-congruent and yearned possible outcome as more or less likely (or less vs. more uncertain). With this construct, what varies is not how much the goal-congruent outcome is yearned for, but rather how *certain or uncertain* the goal-congruent outcome is appraised to be. People have more (or less) cold hope about a yearned for and possible goal-congruent outcome as likelihood estimates of the outcome rise (or decline).

In the current research we build on the emerging literature on hope by examining two underexplored emotions, hot hope and cold hope, establishing fear as their important emotional concomitant, and showing that these emotions have unique effects on financial decision-making under risk. First, we anticipate that hot and cold hope relate differently to fear. Cacioppo and Berntson's (1994) evaluative space model holds that positivity and negativity may be characterized by reciprocal activation (mutually exclusive), uncoupled activation (singularly activated), or nonreciprocal activation, that is coactivation or coinhibition (changes in one system are associated with respectively parallel or opposite changes in the other system), suggesting the possibility that people can experience mixed emotions of opposite valence at the same time (see also Williams and Aaker 2002). We expect a coactivation of hot hope and fear. That is, the more one has hot hope for a goal congruent outcome the more one fears its non-occurrence (e.g., the more I hope to have a sunny vacation the more I might fear the possibility of rain). Fear is stimulated both by the fact that the outcome is desired and because its likelihood is uncertain. Moreover, consumers who have hot hope for a goal congruent outcome may become highly attached to the importance of the goal congruent outcome's occurrence. Its potential non-occurrence induces fear (e.g., I hope to get into a good college, but if I don't, I'll be jobless and without educational prospects). In contrast, we anticipate co-inhibition of cold hope and fear, such that the more cold hope one has about the goal congruent outcome (i.e., the less uncertainty they feel about it) the less fear they will experience. Second, based on prior research on emotions and risk (Lerner and Keltner 2001; Lopes 1987) we expect that the coactivation of hot hope and fear and the coinhibition of cold hope and fear would have different effects on responses involving financial decision-making under risk. Specifically, we expect that the coactivation of hot hope and fear would trigger risk averse financial choices, whereas the coinhibition of cold hope and fear would trigger risk seeking choices.

Study 1 ($n = 60$) examined the relationship between hot hope, cold hope and fear related to retirement savings. Participants were told that this study assesses their beliefs about investing for retirement. Their levels of hot hope, cold hope, and fear for achieving a financially secure retirement were measured. Hot hope was measured by asking respondents about their desire to retire with enough money, the importance of having a financially secure retirement for their psychological well-being, and the pleasure that this outcome will give them. Cold hope was measured by asking participants to assess the likelihood of having enough money to retire when they are of retirement age, and fear was assessed via a statement about having strong fear about not having enough money saved by the time one wants to retire. As expected, results revealed that there is a coactivation of hot hope and fear ($r = .32, p < .01$) and a coinhibition of cold hope and fear ($r = -.40, p < .01$), suggesting that hot hope about achieving a secure retirement is related to more fear about not obtaining this outcome, whereas cold hope is related to less fear.

Study 2 ($n = 145$) again examines the relationship between hot hope, cold hope, and fear, this time in a risky financial gamble context. In this study we prime, rather than measure hot and cold hope. We also go one step further and test the hypothesis that the coactivation of hot hope and fear leads to risk averse financial decisions, whereas the co-inhibition of cold hope and fear leads to risk seeking financial choices. Participants were randomly assigned to one of two experimental conditions designed to induce hot hope or cold hope regarding a financial goal (paying off a debt). As part of this induction, participants were asked to imagine that they had a debt of \$20,000 and that they strongly hoped for paying off this debt (i.e., strongly yearned for the opportunity to pay it off) or were very hopeful about paying it off (i.e., they feel that there is a strong likelihood that they will be able to repay it rather quickly).

Next we told participants that they have a chance to participate in a game of chance where they had to choose one of two financial gambles to bet on: gamble A, which had 70% chance of winning \$40 (less risky option) and gamble B, which had a 40% chance of winning \$120 (more risky option; Liu 2008). As expected, results revealed that people report significantly stronger fear of not being able to pay off their debt when they were induced to feel hot hope ($M = 3.3$) as compared to cold hope about this outcome ($M = 4.3; t(144) = 3.18, p < .01$). Moreover, almost twice as many participants chose the more risky gamble in the cold hope ($M = 40\%$) as compared to the hot hope condition ($M = 23\%; t(144) = 2.10, p < .05$). These results provide further evidence about the hot and cold hope respective coactivation and coinhibition with fear and about the effect of these emotions on financial risk taking.

This research contributes to the emerging literature on hope by studying two underexplored emotions “hot hope” and “cold hope,” and establishing fear as their important emotional concomitant; provides insights into the effects of mixed emotions on financial decision-making under risk; and offers important implications for consumers’ financial decision making and hence for the design, presentation, and communication of defined contribution retirement plans and financial products in general.

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Choice, Rejection, and Elaboration on Goal-Inconsistent Alternatives

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Consumers can make purchase decisions by choosing or rejecting alternatives. Choosing which alternative to purchase typically involves evaluating each product on the dimensions that are consistent with one's goals. The process supporting the rejection of alternatives (i.e., choosing which alternatives to give up) is less clear (Dhar and Wertenbroch 2000; Shafir 1993). We propose that consumer preference for alternatives that serve two competing, important goals (e.g., being indulgent vs. being virtuous) is determined by how much they elaborate on information (e.g., features and benefits) associated with their goals. This elaboration pattern depends on whether they choose or reject alternatives. Choosing (rejection) encourages consumers to elaborate on information that is (in)consistent with their goals, which leads to goal-(in)consistent choices. Consider an opportunity to purchase a Blackberry or an iPhone. If a consumer needs a business phone, she will elaborate primarily on business features and choose a Blackberry. Deciding which alternative to reject involves increased elaboration on goal-inconsistent alternatives. The only way to eliminate an option is to think carefully about the features of this option. The consumer then elaborates more on the (nonbusiness) features of the iPhone, which can serve alternative goals. Because iPhone has many appealing features that can serve other goals that are important to people, increased elaboration on these features might result in increased preference for the iPhone. These predictions find support in findings that consumers focus on utilitarian items when making choices, but on hedonic items when making rejections (Dhar and Wertenbroch 2000), and that consumers focus on positive features when making choices, but negative features when making rejections (Shafir 1993). In contrast to these findings, our conceptualization predicts that rejection tasks lead to preference reversals independently of how hedonic the alternatives are or the number of positive and negative features.

In study 1, participants were either asked to choose between a \$50 gift certificate for a nice restaurant (indulgent option) and a \$50 gift certificated for groceries (virtuous option), or were awarded both certificates and asked to eliminate one and keep the other. These items were pretested in a way that most people preferred the gift certificate for groceries (virtuous option). Therefore, this was the goal-consistent alternative. Participants were less likely to choose the indulgent option in the choice (37.3%) than in rejection task condition (60.0%; $\chi^2(1) = 4.96, p < .05$). Therefore, they chose the goal-consistent option more often, but also rejected this option more often. Half of the participants were subject to a depletion manipulation, which has been shown to encourage indulgence. In this condition, participants were more likely to choose the indulgent option in the choice (58.7%) than in rejection task condition (36.2%; $\chi^2(1) = 4.73, p < .05$). Again, choices were consistent with the focal goal (indulging, as a consequence of depletion) while rejection was consistent with the opposite goal (regulating).

In study 2, we investigated whether people need to be endowed with two options for preference reversals to occur in a rejection task, as found in previous research, or whether simply asking people to reject one option can produce the effect ("which option do you choose?" vs. "which option do you reject?"). In addition, we asked people to describe which type of information they had elaborated on. The choice was between an apartment with expensive rent but close to nightlife, pretested to be a preferred option, or a cheaper apartment located far from nightlife. In a second condition, a goal to save money was primed without participants' awareness. In the neutral prime condition, participants were more likely to choose the indulgent option in the choice (61.2%) than in rejection task condition (35.7%; $\chi^2(1) = 5.89, p = .01$). In the saving prime condition, participants were less likely to choose the indulgent option in the choice (41.0%) than in rejection task condition (66.7%; $\chi^2(1) = 5.72, p = .01$). In addition, participants' pattern of elaboration on the alternatives were consistent with their choices (i.e., rejection led to more elaboration on goal-inconsistent alternative), and elaboration mediated the influence of the manipulations on preference (Sobel's $z = 4.60, p < .01$). Finally, in study 3, we used the

conditions in which participants preferred the expensive, indulgent apartment at baseline and manipulated cognitive load. In the low information load condition, participants were more likely to choose the indulgent option in the choice (68.4%) than in rejection task condition (40.0%; $\chi^2(1) = 11.45, p < .01$). In the high information load condition, participants were less likely to choose the indulgent option in the choice (52.8%) than in rejection task condition (68.9%; $\chi^2(1) = 3.56, p < .05$). It seems that, under high load, participants were not able to elaborate on the goal-inconsistent alternative in the rejection task, which reversed preferences back to baseline (i.e., preference for the indulgent option). The pattern of elaboration on the product alternatives mediated the influence of the manipulations on preference (Sobel's $z = 3.66, p < .01$).

These findings have important implications for problems such as obesity and debt. These problems are the result of repeated indulgent choices, which can be a consequence of constant elaboration on information associated with indulgence. The current research takes a step forward in developing knowledge on how people can be encouraged to focus on virtuous information and perform virtuous behavior. Short of simply telling people what “the right thing to do is,” changing the most active goal in subtle ways and using the framing of people’s decisions (reject vs. choose) to influence elaboration and subsequent behavior may be helpful in solving behavioral issues that appear epidemic and virtually unsolvable. Although we have offered an initial contribution in this direction, applying this knowledge in a broader context and with different populations should be of highly relevance in future research endeavors.

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8.4 Individual Papers: The Psychology of Mindsets

Room: Oak Room

Chair: Jessica Rixom, University of Utah

The Illusory Truth Effect: No Repetition Necessary

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Xiaoning Guo, University of Cincinnati, USA

Drew Brown, University of Cincinnati, USA

Chris Manolis, Xavier University, USA

John Dinsmore, University of Cincinnati, USA

Frank Kardes, University of Cincinnati, USA

Tarryn Williamson, Tufts University, USA

Xiaoqi Han, University of Cincinnati, USA

One of the foremost difficulties in marketing is convincing consumers that brand/product information is truthful. One effective technique is repetition. Repetition can foster familiarity and comfort with information, which in turn makes it seem more believable upon subsequent exposures; this process has been termed the truth effect (Hasher et al. 1977; Hawkins & Hoch 1992). Although highly robust (see Dechêne et al. [2010] for a review); from a marketing perspective, having to repeat a message numerous times can be expensive. The present work replicates the truth effect without the necessity of repetition using construal level theory (CLT).

CLT explains how psychological distance influences individual’s thoughts and behavior (Trope et al. 2007). The theory holds that people mentally construe objects or events that are psychologically near differently than the same objects or events that are psychologically distant. For example, Sherman et al. (1983), states that, “the concreteness of an imagined event was associated with increased subjective evaluations of its likelihood” (p. 144). Similarly, Trope et al. (2007) found that activating a high-construal level mindset brought to mind the improbability of an event, which reduced estimates of the likelihood of a given event occurring. Taken

together, these results suggest that the more concrete ones' thinking (low-construal), the more believable a given proposition seems; whereas the more abstract ones' thinking (high-construal), the more improbable it seems.

This paper examines the effect of psychological distance on the subjective truth ratings of various ambiguous marketing claims to replicate the illusory truth effect without repetition across a variety of construal level manipulations.

In experiment 1, participants were randomly assigned to either a high- or a low -construal level mindset condition. Construal level was manipulated using Freitas et al.'s (2004) how versus why manipulation. In both conditions, participants were asked to consider a prompt involving improving and maintaining one's physical health. In the high-construal level mindset condition, participants listed *why* it may be important to improve and maintain their physical health, directing them to consider the issue in an increasingly *abstract* manner. In the low-construal level mindset condition, participants listed *how* they would improve and maintain their physical health, directing them to focus on the issue in an increasingly *concrete* manner. After completing their respective mindset manipulation task, all participants completed a purportedly unrelated task requiring them to rate the truthfulness (on a 7-point scale, where 1 = definitely false, and 7 = definitely true) of 15 assorted marketing claims.

Participants in the low-construal level mindset condition rated the claims as significantly more likely to be true ($M = 3.46$, $SD = 0.63$) compared to participants in the high-construal level mindset condition ($M = 3.11$, $SD = 0.76$), $t(112) = 2.68$, $p < .01$, $d = 0.51$. These results suggest that marketers can utilize construal level mindset manipulations to influence the subjective truth ratings of various marketing claims. More importantly construal level mindset manipulations do not require repetition as is the case for the illusory truth effect.

In experiment 2, we introduced a perceptual processing task to manipulate construal level and a unique set of marketing claims. We used the Navon Task to induce either a low- or high- construal level mindset. Participants were asked to complete a letter identification task. Within this task, each participant was presented with a series of large letters, each of which was composed of a series of smaller letters (e.g., a large A made of small Hs; Navon, 1977). The Navon task has been used to manipulate high- and low-level-construal mindsets (Smith et al., 2008). Participants in the high-construal level mindset were asked to identify the big letters, whereas those in the low-construal level mindset were asked to identify the small letters. Twenty-two Navon letters were presented in total, four on each page. Finally, participants rated the truthfulness of the marketing claims.

We examined the effect of construal level on the perceived truthfulness of 15 marketing claims. As expected, marketing claims were perceived as more truthful in the low-construal level mindset condition ($M = 3.73$, $SD = 0.54$) than in the high-construal level mindset condition ($M = 3.51$, $SD = 0.57$), $t(101) = 2.05$, $p < 0.05$, $d = 0.41$. These results parallel those of experiment 1, supporting the finding that a low-construal level mindset increases the perceived truthfulness of marketing claims without the need for repetition.

In experiment 3, we incorporated unique construal level manipulations within each marketing claim along with a novel set of marketing claims. We manipulated construal level according to two factors, temporal and experiential proximity, in order to explore the interactive effect of these distinct dimensions of psychological distance. The use of temporal reference frames, such as tomorrow or next year, has been shown to activate high- and low- levels of construal (Chandran and Menon 2004; Liberman and Trope 1998). On the other hand, experiential proximity is proximal when based on first-hand (e.g., the consumer's own prior experience) versus second-hand and third-hand information (e.g., the communication of others) (Fiedler, 2007). Experiment 3 investigated whether the temporal proximity of when the participant encountered each marketing claim along with the experiential proximity of how the participant encountered each claim produced higher truthfulness judgments. It is important to note that experiment 3 did not

incorporate a mindset priming manipulation as in the previous two studies. Instead, we manipulated construal level within each marketing claim.

A 2 (temporal proximity: near vs. far) x 2 (experiential proximity: near vs. far) between subjects-design ANOVA conducted on the average truthfulness ratings of 15 marketing claims revealed no main effects. However, this was qualified by an interaction effect, $F(1, 176) = 7.04, p < .01, \eta^2 = 0.40$. Thus, marketing claims framed as temporally near (vs. temporally far) and experientially near (vs. experientially far) were evaluated as being more truthful than when the marketing claim was temporally near yet experientially far. In addition, the marketing claims framed as experientially far (vs. experientially near) were perceived to be more truthful in the temporally far condition.

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Does a Crowded Store Lead to a Crowded Mind? Physical Crowdedness and Mental Construal of Product Features

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Consider a consumer shopping for a new DVD player at an electronics retailer. She visits the store on a Saturday, when the store is crowded and full of browsing shoppers. She picks out a DVD player but decides to think about it over the weekend. She returns Monday morning when the store is substantially emptier and once again compares the players in her consideration set. The question is, might the less crowded store environment cause her to mentally construe features of the DVD players differently than on her prior visit, thus potentially causing her to change her choice? The goal of the present research is to investigate this fascinating possibility through the lens of construal-level theory (CLT; Trope and Liberman 2003).

CLT has evolved into the main framework for considering psychological distance. The essence of the theory is that more distant events (where distance could be temporal, social, or spatial) are perceived more abstractly, and nearer events more concretely. On the issue of spatial distance specifically, Williams and Bargh (2008) argue that rather than being one derivative of psychological distance, it may actually be the other way round - i.e., that a (primitive) understanding of physical distance served as the foundation for the later development of the broader concept of psychological distance. Certainly, from an evolutionary perspective, the ability to monitor the distance from predators is a basic survival mechanism that is likely to be selected for. Indeed, the anthropologist Edward T. Hall (1966) primarily developed his seminal proxemic theory primarily by studying animal behavior.

Hall argues that human perceptions of space are largely automatized at an unconscious level. Furthermore, he suggests that such automatized responses occur on dimensions beyond pure distance. For example, he argues that being crowded by others leads to negative outcomes such as stress and aggression. This link between crowding and negative motivational states suggests the possibility that crowding might have similar effects on construal levels as does raw psychological distance. Support for this possibility can be found in Easterbrook's (1959) argument that defensive motivational states (such as stress and anxiety) modulate attentional scope. Indeed, the attentional tuning model (Tucker and Williamson, 1984) suggests that aversive motivational states narrow attentional scope, while approach-related motivations broaden it. This research was thus envisaged to directly explore whether the crowdedness of the environment moderates consumers' construal levels.

Study 1 used a 2 (crowdedness: crowded vs. uncrowded) X 2 product feature (desirable vs. feasible) between subjects design. To manipulate crowdedness we designed a novel semantic priming approach based on a Cartesian coordinate task (Williams and Bargh 2008). Specifically, participants were first asked to plot points on a Cartesian plane (aka graph paper). In the crowded condition participants plotted eight points that were tightly clustered around the origin, while those in the uncrowded condition plotted two points that were distant from the origin. A small stick figure was drawn at the origin to facilitate semantic perceptions of interpersonal crowdedness due to the surrounding plotted dots. In a supposedly unrelated rating task, participants were then asked to rate a DVD player (described over eight attributes) on a 7-point scale (-3 to +3). Previous research has demonstrated that high/(low) level construals lead to greater relative preference for desirable/(feasible) product attributes (Kim et al., 2009). As such, one of the attributes of the DVD player was varied to be either feasibility orientated (“manual is easy to use”) or desirability orientated (“player is made of high technology materials”).

Results revealed no main effect of either crowdedness or product feature but did reveal an interaction between the two ($F(1, 227) = 5.35, p < .02$). This interaction was primarily driven by participants in the uncrowded condition rating the DVD player with the desirability orientated feature higher ($M = 2.35$) than the player with the feasibility orientated feature ($M = 1.89$). In the crowded condition, however, the two DVD players were essentially equivalently rated ($M_{\text{desirable}} = 2.27, M_{\text{feasible}} = 2.33$).

Study 2 was designed to build on study 1 in a number of ways. First, it is possible that the Cartesian plane manipulation did not prime crowdedness at all, but in fact primed simple spatial distance. Second, we wanted to replicate the effect using a more ecologically valid manipulation. To address both of these concerns, study 2 used the same 2 X 2 design and dependent measure, but a more natural manipulation of physical crowdedness. Specifically, we randomly approached participants at two farmers’ markets. Participants in the crowded condition were from a Saturday farmers’ market that was extremely crowded, with many hundreds of shoppers very tightly contained in a single street. Participants in the uncrowded condition were from a Tuesday market in the same area, but which was dramatically less crowded.

Similar to study 1, while there was no main effect of either crowdedness or product feature, there was an interaction between the two ($F(1, 121) = 8.89, p < .002$). At the crowded market participants preferred the player with feasibility features ($M_{\text{feasible}} = 2.18, M_{\text{desirable}} = 1.72$) while at the empty market this pattern of preference was reversed ($M_{\text{feasible}} = 1.63, M_{\text{desirable}} = 2.18$), both $ps < .05$.

In summary, two studies supported the idea that the crowdedness of the consumer’s environment influences the way product features are mentally represented. A crowded environment led consumers to prefer a product described with concrete features over one described with abstract features, while a less crowded environment led to the opposing pattern of preference. We believe this finding has several important implications. First, these data suggest that researchers might be placing too much emphasis on the link between psychological distance and mental construal levels, at the expense of other moderators, such as the crowdedness of the environment. Second, from an applied marketing perspective, there are considerable strategic implications of the general finding that the crowdedness of a store might moderate how consumers construe products and promotional information.

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Describing Risks Associated with Products can Ironically Improve their Subsequent Assessment

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High profile ads promoting alluring benefits, such as pain relief or renewed sexual potency, often prominently and clearly warn of grave potential side effects (e.g., a stroke or cancer). Such warnings are presumably (Eisend, 2006) mandated by legislators or intended to preempt regulatory interventions. Disclosing potential risks associated with a product should facilitate safer consumer choices, hurting attitudes toward the product. In contrast, we propose can ironically improve subsequent attitudes toward the product. Our proposition draws on Construal-Level-Theory (CLT), whereby different levels of contextual variables, such as time and place, are associated with different construal levels (Trope & Liberman, 2000). When it comes to time, for example, lower construal levels relate to the here and now, whereas higher construal levels relate to more distant events. At low/(high) construal levels consumers rely on more/(less) concrete schemes to represent the product or event, and tend to focus more on feasibility/(desirability) aspects of the product/event (Liberman & Trope, 2008). In the context of this research, ads may include a promise representing the main goal of product consumption, and a warning relating to possible side-effects of consumption. We thus propose that possible side effects of usage (secondary to the main consumption goal), feature more/(less) prominently when ads are construed at a lower/(higher) level. Perceived usage risks might thus negatively affect overall short-term evaluations. However, at high construal levels, product benefits are more prominent than potential side effects. Content of the warning will thus seem less important at high versus at low construal levels, but presence of a warning can boost perceived ad and firm reliability. We further suggest that delayed judgments of current events will be construed at high levels, & thus expect warnings to improve overall evaluations in two conditions: if the product will be launched in the future and thus immediate judgments focus on a future event, as proposed by classic CLT; and if the product will be launched immediately but judgments are delayed versus when the ad was seen.

Study 1 demonstrated that including a warning in an ad lead to greater concerns under low under versus high construal levels, but increased perceived reliability of the firm and the ad under high versus low construal levels. Participants (men aged >50) saw an ad for a Viagra-like product said to also increase risk of a stroke, to be launched immediately versus in the future. They rated potential risks as greater in the former than in the latter (5.42 vs. 4.47, $t(32)=2.21$, $p<.05$), and perceived reliability of the company and the ad as greater in the distant than in the near future (5.27 vs. 4.32, $t(32)=2.14$, $p<.05$; 5.13 vs. 4.11, $t(32)=2.02$, $p<.05$, respectively).

Study 2 further investigated ironic effects of warnings as a function of when evaluations are made, showing that including a warning in an ad improved subsequent evaluations. Specifically, 304 participants saw a hair loss medication ad with or without a warning of potential weight gain, and were asked for immediate or for delayed (by 2 weeks) judgment. As predicted we found a significant 2-way interaction, ($F(1,300)=9.13$, $p<.05$). In the presence of a warning, participants evaluated the product more highly in delayed versus in immediate judgments (3.69 vs. 2.53, $t(218)=5.35$, $p<.001$). However, in the absence of the warning, timing of the evaluations did not significantly influence them (3.28 vs. 3.36). Moreover, in the presence of the warning, the ad was perceived as more reliable over time (3.58 vs. 4.30, $t(218)=3.12$, $p<.05$). However, without a warning, perceived ad reliability was no different over time (it decreased (4.11 vs. 3.45), but not significantly, $t(82)=1.55$, $p>.1$).

Products are sometimes preannounced (before the launch) to build up interest. We suggest an additional benefit of this strategy—diluting ironic effects of warnings, as CLT principles suggest that consumers construe warnings at high levels if the launch is to occur in the future. Study 3 explores this boundary condition. Participants (158 men, aged >50) saw the same ad used in study 1, with versus without a warning, which was to be launched in the near or distant future, and were asked for an immediate or for delayed judgments.

Results suggest that product attractiveness was a function of the 3 factors, $F(1,150)=10.77, p<.01$. Thus, when the product was to be launched soon, we replicated results of study 2. When a warning was included, product evaluations were higher under delayed- than under immediate-judgements (4.83 vs. 3.17, $t(34)=3.28, p<.01$); without a warning, however, product evaluations were higher under immediate- than delayed-judgments (4.47 vs. 3.35, $t(40)=2.31, p<.05$). However, when the product was to be launched in the distant future, there was no significant difference in evaluations in the presence of a warning under immediate or delayed judgment conditions (4.73 vs. 4.56), nor in the absence of a warning under the immediate or delayed judgment conditions (4.57 vs. 4.17). Reliability ratings were consistent with product evaluations ratings. When the product was to be launched immediately, including a warning lead reliability evaluations to be higher under delayed- versus immediate-judgements (3.56 vs. 4.88, $t(34)=2.73, p<.05$). However, without a warning, there was no significant difference in reliability evaluations under immediate- and delayed-judgments (3.84 vs. 3.35). Moreover, when the product was to be launched in the future, there were no significant evaluation differences among immediate or delayed judgments neither with (5.20 vs. 4.44) nor without a warning (3.90 vs. 3.89). Moreover, reliability evaluations fully mediated the effect of product evaluations.

In conclusion, we consistently show that describing risks associated with products promising alluring benefits, can *enhance* subsequent appeal of these products. Such consequences of warnings can have important public policy implications. A disturbing example is that adding warnings of smoking risks to cigarette ads may promote rather than curtail smoking. Interestingly, this effect may go undetected, since warnings improve product assessment only sometime after the ad was first viewed (when consumption decisions are likely) rather than soon after the ad was viewed (when regulators are likely to examine ad impact). More generally, this research may help assess true impact of promotions and help protect consumers more effectively.

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The Robin Hood Effect: When High-Level Construals Lead To Immoral Behaviors for the Greater Good

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Moral principles (e.g., cheating is wrong, donating is good) help guide decisions throughout life. These principles act as high-level, abstract constructs that are relied on for guidance. Previous research shows that a high-level relative to low-level construal leads people to judge immoral acts more harshly and moral acts as more virtuous, avoid behaviors that violate moral principles (e.g., lying, cheating), and engage in behaviors that support moral principles (e.g., donating, cooperating), regardless of context (Eyal, Liberman, and Trope 2008; Sanna et al. 2009).

While prior work on construal level's impact on moral judgments focused on a single moral principle, moral decisions do not always occur in isolation. Thus, we build upon earlier research by investigating situations that pit immoral acts against moral acts. We find that people with high-level construals violate moral principles to accomplish a notion of the greater good. Specifically, when high-level compared to low-level construals are activated, people are uncooperative in order to help others (study 1) and while they will not lie for themselves, they will lie to help the sick children or to punish harmful companies (study 2). We term the use of immoral acts by people with a high-level construal for the sake of helping the greater good, the Robin Hood effect.

Study 1 demonstrated the basic effect. Participants were primed with either a high or low-level construal (Freitas, Gollwitzer, and Trope 2004). Then, they played a computer-based fishing cooperation game (Bargh et al. 2001; Sanna et al. 2009), purportedly with someone in another room. Real money was earned for each fish kept. Participants earned money for themselves or a charity, depending on the condition to which they were randomly assigned. In all conditions, the “other participant” earned money for themselves. To promote cooperation, if the fish population dropped too low, all profits were confiscated. Consistent with previous literature, when earning for themselves, high-level relative to low-level construals were more cooperative (kept fewer fish). However, we find that when earning money for a charity, high-level construals were less cooperative (kept more fish). Said differently, a high-level construal led to uncooperative behavior when doing so meant that the greater good served by a charity would benefit.

In study 2 we used a dishonesty paradigm adopted from work by Mazar, Amir, and Ariely (2008). Participants solved puzzles and were then primed with a high-level or low-level construal (Freitas et al. 2004). Next, they were asked to indicate how many puzzles they solved correctly so they could be paid for their performance (a quarter per correct answer, up to \$5). The instructions varied by condition. In one payment condition (the benchmark), lying was not possible because the researcher graded the participants’ answers. Lying was possible in the other conditions because the participants graded their own answers, destroyed the answer sheets, and indicated the number correct on a separate payment form. When the average that participants claimed to solve correctly was significantly lower or higher than the benchmark, lying was inferred. Consistent with past work, those with high-level (low-level) construals acted morally (immorally) and didn’t (did) lie for personal gain. In the other two payment conditions, participants read that \$5 was set aside and they would earn a quarter for each correct answer with the remaining money donated to charity. Thus, claiming few (many) correct answers resulted in larger (smaller) donations. The charity either granted wishes to ill children (good charity) or paid legal expenses for companies charged with environmental damage (bad charity). In both conditions, participants with high-level construals lied about the number of correct answers. When the charity was good, participants with high-level construals *underreported* the number correct. That is, they acted immorally, lied, and hurt themselves financially to ensure larger donations to the good charity. Donations would be made even without lying but they decided to underreport so more would be donated. Conversely, for the bad charity, participants with high-level construals lied by *overreporting* the number correct. They were immoral, lied, and gained financially in order to reduce the donations to a charity that harms the greater good. When deception was possible, people with low-level construals consistently lied by overreporting the number correct. The extent of their lying did not vary based on whether they themselves, a good charity, or a bad charity would benefit from the decision.

The findings illustrate that by linking rather than isolating moral decisions, people with high-level construals violated moral principles, gained financially, and hurt others. Specifically they were uncooperative when working on a charity’s behalf and they were dishonest to increase donations to a respected charity or to withhold assistance from a disrespected charity. Consistent with previous work, they did not violate these principles solely for personal gain, but rather when the immoral acts were a conduit for the greater good.

Building on construal level theory, the effect may occur for a number of related reasons. First, supporting the greater good may be construed at higher levels than other moral principles, making it a focal concern that overshadows competing principles. Similarly, people with high-level construals focus on superordinate concerns, so if notions of the greater good are superordinate to other principles, it may be promoted while overlooking other principles. Finally, people with high-level (low-level) construals emphasize desirability (feasibility) (Lieberman & Trope, 1998). The heightened desirability of helping the greater good may obscure the situation for people with high-level construals such that the ends (assisting the greater good) are sufficient to justify the means (violating moral principles). This work provides some insight into the day-to-day acts of dishonesty that one may justify to more extreme issues such

as eco-terrorism in which environmental extremists attempt to help the greater good (protect further environment damage) by committing immoral acts (vandalism).

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8.5 Individual Papers: Eat This, Not That: Helping Consumers Make Healthier Food Choices

Room: Spruce Room

Chair: Aida Faber, McGill University

Candy from Strangers and Vitamins from Friends: How Expectations Affect the Valuation of Advice in Social Networks

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Recommendations from social network ties play an important role in the development and evaluation of product consideration sets (Van den Bulte and Joshi 2007; Frenzen and Nakamoto 1993; War and Reingen 1990; Brown and Reingen 1987), as well as job-seeking and knowledge-transfer in organizations (Levin and Cross 2004; Granovetter 1973). This rings true with everyday life -- from the "Like" button on Facebook, to crowd-source feedback websites like Aardvark.com, to research discussions at academic conferences -- we are regularly presented with opportunities to both solicit and provide advice. This suggests that seeking others' opinions is a core part of the socially-embedded decision-making process. We seek to understand how the relationship of the advisor (strength of tie) affects the expectations and evaluation of advice, as well as the role that the content (valence) of the message plays.

Some research has shed light on how expertise or benevolence affects whether advice is sought in the first place (Levin and Cross 2004; Frenzen and Nakamoto 1993), but much still remains to be understood about how advice in social networks is received. For example, Economic rational theory leads us to believe that expert opinions will weigh most heavily during decision-making, as consumers seek to reduce imperfect information. The Sociology literature suggests, however, that opinions received from people who are strong social ties are more likely to be heavily leveraged, given the supposed similarities between the recipient and sender of the feedback (Krackhardt 1992, Granovetter 1983). Still, other Sociological research points to the activation of weak ties (Granovetter 1978) when new or non-redundant information is being sought, as in the case of contacts for job-hunting. Given these conflicting perspectives, we seek to understand: does the type of social network tie (strong/weak/anonymous) affect both the expectations of the recommendations, as well as the way they are received, and does this vary when we are seeking input for certain types of decisions ("want"/"should")?

Through a series of experiments, we show that, although strong ties are normatively expected to be sought for advice first, subjects expect weak ties to recommend "want" choices ("candy") and strong ties to recommend "should" choices ("vitamins"). Moreover, these weak ties result in greater confidence in a decision, when the valence of the feedback is positive. Thus, although strong ties are often preferred, subjects who seek confirmation for "want" choices would be better served by seeking advice from weak ties, and,

moreover, will experience greater confidence when positively valenced input is then proffered. These findings shed new light on the “strength of weak ties” (Granovetter 1973), and the strategic activation of social ties for advice in social networks.

Three studies paint a picture of how expectations and evaluations of social feedback vary by the recommender’s strength-of-tie. In order to test this, we placed subjects in a variety of decision scenarios that involved a tension between what they “want” to do (“candy”), and what they “should” do (“vitamins”), then measured their expectations of the advice they might receive from others (strong tie/acquaintance/stranger). In Studies 1 and 2, we test subjects’ expectations of how advice might differ based on tie strength. Our results show that people *expect* weak ties to recommend “want” choices, and strong ties to recommend “should” choices. Moreover we find that subjects believe that weak ties in the “want” condition are more honest than strong ties. People *expect* “should” recommendations from strong ties, and “want” recommendations from weak ties, and, we argue, this expectation has consequences for peoples’ behaviors. This could mean that people activate ties based on their goal-orientation, which would be inconsistent with the longstanding economic and sociological intuition that close ties would always be preferred in any decision scenario.

The results from study 3 add to the validity of this assertion, as subjects *expected* strangers to agree with their decisions more so than acquaintances or close ties, regardless of whether the decisions involved a radical change. When asked about decisions where their “want” goals were at odds with their “should” goals (e.g., a radical hairstyle change), subjects expected the likelihood of agreement with their decision to increase as the strength of the tie with the advisor decreased. This sheds light on social feedback dynamics, as it suggests that actors may anticipate that the likelihood of agreement with their decisions will differ based on tie strength.

Finally, in study 4, we test the receipt of social feedback, and whether subjects place more weight on feedback, depending on the source (strong tie/weak tie/stranger) and the valence of the advice (positive/negative). Our findings indicate that, although subjects normatively hold the input of strong ties in high esteem and expect to seek their advice over that of acquaintances and strangers, there are instances when weaker ties can be given greater weight (again, controlling for expertise). In a study where subjects were told that they were shopping for a suit for an interview and received valenced feedback on the potential purchase (positive/negative) from someone else in the fitting room (strong tie/weak tie/stranger), subjects are *more confident* about the consumption choice when they receive a compliment from a weak tie than a strong tie. This study sheds further light on the circumstances under which weak-tie recommendations may be more influential than strong-tie recommendations, as we find that this depends on the valence of the recommendation, as well as the expectations of the advice recipient. The results of these four studies illustrate another dimension of “strength of weak ties” (Granovetter 1973), as they relate to both expectations and acceptance of social advice.

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Factors that Trigger Unhealthy Food Consumption: What Makes Us Indulge and What Can Attenuate How Much We Eat?

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People overeat, and much of this overeating is *triggered*—that is, instigated by external cues in the immediate environment. For example, you might find yourself eating m&m’s by the handful from the candy bowl in the departmental office or indulging in a free

cinnamon roll sample at the supermarket. In both cases, you had not *intended* to engage in unhealthy eating behavior; rather, you unexpectedly encountered an eating opportunity and spontaneously consumed.

This article introduces and empirically investigates a novel metatheory of unhealthy food consumption. We focus on triggered eating as a particularly insidious cause of weight gain. The metatheory identifies three key processes causing people to overeat. *Instigators* are discrete environmental cues that trigger a behavioral inclination toward unhealthy overconsumption. *Impellers* strengthen the consummatory craving people experience when confronted with instigating triggers. *Inhibitors* increase the likelihood that consumers will override the craving to overeat rather than to act upon this craving. According to I³ Theory, risk factors predict unhealthy consumption not only in isolation, but also in combination with risk factors from the other two I³ Theory categories; unhealthy consumption is most extreme when instigators and impellers are strong and inhibitors are weak.

Encountering unexpected or incidental food, especially tasty food, in one's environment serves as a powerful instigator. In such situations, cognitive and affective factors influence the instigator's strength, which, in combination with impelling factors, influences how strongly people will crave the food. Cognitive factors moderating instigators' strength include *size* (people eat more when they serve themselves from a large container, onto large plates, or with large serving utensils; Wansink 2006), *variety* (people eat more when they are confronted with multiple types of food rather than just one; Kahn and Wansink 2004; Rolls et al. 1981), and *time of day* (many people, perhaps especially obese people, eat more at meal-times regardless of how hungry they are; Schachter, Goldman, and Gordon 1968). Affective factors moderating instigators' strength include *food palatability* (Kessler 2009; Nisbett 1968), *salience* of the target food (Wansink, Painter, and Lee 2006), and even just the situationally induced *belief that the food will be palatable* regardless of its actual palatability (Wansink 2003; Wansink and Park 2002; Wansink, Payne, and North 2007). These instigators function primarily by serving as discrete environmental cues that trigger a behavioral inclination toward overeating rather than by bolstering an extant inclination or by dis-inhibiting an extant craving.

Impelling risk factors include *hunger* (both dispositional appetite strength and situational deprivation); and *liking* for the food, including conditioned liking (Baeyens et al. 1996; Birch 1981) and implicit liking (e.g., Hofmann et al. 2008). These impellers function primarily by strengthening the consummatory craving people experience when confronted with instigating triggers.

Dis-inhibiting risk factors include *failing to monitor one's food intake* (Collins 1978; Roberto et al. 2010; Wansink and Payne 2007), and *perceived caloric preloads* (when the perception that one has already blown one's diet causes consumers, especially "restrained eaters," to overeat; Herman and Mack 1975; Polivy 1976; Spencer and Fremouw 1979; Woody et al. 1981). Although these dis-inhibitors vary on a number of dimensions, they all function primarily by decreasing the likelihood that consumers will override the craving to overeat.

One of the central propositions of I³ Theory is that researchers' predictive power is greatly enhanced by recognizing how variables from each process category (instigators, impellers, and inhibitors) interact with variables from one or both of the other process categories to predict excessive unhealthy food consumption.

The instigating trigger in study 1 (conducted in a supermarket) was whether we asked shoppers to think about the food (cinnamon rolls) in terms of its appealing gustatory (visceral) properties or in terms of its nongustatory (non-visceral) basic ingredients (Mischel, Shoda, and Rodriguez 1989). The Viscerality \times Hunger \times Depletion interaction effect was significant on grams of cinnamon roll eaten. The Hunger \times Depletion interaction effect was not significant in the nonvisceral condition, but it was significant in the visceral condition. Within the visceral condition, the association of hunger with grams eaten was not significant for shoppers who were not

feeling depleted, but it was significant and positive for shoppers who were. Shoppers in the visceral condition who were hungry and whose self-control resources were depleted ate more cinnamon roll than did participants in any other condition.

The instigating trigger in study 2 (conducted in the lab) was whether participants witnessed other people (confederates) consume Peanut m&m's with or without exuberance (Nisbett and Storms 1974). We also manipulated the impellor (hunger) and the inhibitor (depletion) (Schmeichel 2007; Vohs and Faber 2007). Hungry (highly impelled), depleted (dis-inhibited) participants in the high social anchoring (strong instigator) condition ate more grams of Peanut m&m's than did participants in any other condition.

The instigating trigger in study 3 was whether we served participants in a large or a small bowl. We also manipulated the impellor (perceived habituation rate) by informing half of the participants that the pleasure of hedonic consumption (in general—including smell, sight, and taste) diminishes rapidly and by informing the other half that it diminishes slowly. We assessed dis-inhibitory tendencies with a well-validated self-report measure of individual differences in participants' chronic tendencies toward disinhibited eating (inhibitor). Chronically disinhibited participants who believed that hedonic habituation transpires slowly (strong impellor) and who were served out of a large bowl (strong instigator) ate more grams of regular m&m's than did participants in any other condition.

This paper introduces I³ Theory to the domain of overeating and presents three studies inspired by this introduction. Results reveal strong support for the predictions that instigators, impellers, and inhibitors interact to predict overconsumption of unhealthy food; that the impellor × inhibitor interaction effect is more powerful when the instigator is stronger than when it is weaker; and that people eat the most when instigators and impellers are strong and the inhibitors are weak. I³ Theory's emphasis on the processes by which risk factors promote unhealthy eating has the potential to integrate diverse aspects of the eating literature under a single metatheoretical umbrella.

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The Effect of Mirror Decoration on Food Taste Perception

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Recent studies show an alarming increase in obesity in the United States with 74.1% of the population over 15 years old considered to be overweight (Streib 2007). Various organizations are dealing with this issue by looking for self-driven ways of controlling obesity through changing people's eating habits and introducing standards of healthy eating. The aim of these standards is to promote eating of healthy foods and prevent people from unhealthy eating practices. Emphasized by media and many food producers through calorie or fiber intake, smaller portions, reduced sugar, and reduced fat or fat-free products, standards of healthy eating have been widely accepted. However, there are still many hurdles that prevent people from adopting these standards. One such hurdle is the taste perceptions of unhealthy foods that make them more attractive than healthy options. Past research has shown that regardless of the actual taste, even considering a food as less healthy makes it more tasty (Raghunathan, Naylor, and Hoyer 2006). Thus, making unhealthy foods less tasty could potentially reduce their consumption and help people to practice healthy food consumption. In this research, we show that taste perceptions of unhealthy foods are malleable and can be altered by the presence of a mirror. More specifically, we find that food consumption in front of a mirror dampens down the taste perception of unhealthy foods but not healthy foods.

Past research provides some background in understanding how a mirror can alter the taste perception of unhealthy foods. Work has shown that gazing into a mirror directs one's attention toward the self and develops a state of self-awareness (Baumeister 1995). Self-focused people tend to monitor their behaviors and adjust them against standards of correctness (Baumeister 1995). For example, increasing the state of self-awareness tends to decrease the likelihood of cheating on a test (Diener and Wallbom 1976). Moreover, when behavior does not match with standards, enhancing the state of self-awareness creates a negative affect (Duval, Silvia, and Lalwani 2001). The person who feels this negative affect does not immediately know the reason for such feelings (Duval, Silvia, and Lalwani 2001). In such situation a person is more likely to attribute the negative affect to an external factor since self-awareness enhances the external attributions for negative events (Cohen et al. 1985). Therefore, we posit that consuming an unhealthy food (which doesn't match with the ideal standards of healthy lifestyle) in front of a mirror would lead to a negative affective reaction. This negative reaction would be attributed to the food (external source) and lead to less favorable taste perception of the unhealthy food. For healthy food whose consumption is consistent with ideal standards, the presence of mirror will have little influence on taste perceptions.

In study 1, participants chose between a healthy and an unhealthy chocolate bar. Then, they ate the selected chocolate bar and evaluated its taste in a room with or without a mirror. Results showed that the unhealthy chocolate was evaluated less tasty in the mirror condition compared to the no-mirror condition. However, the presence of mirror did not change the taste perception of the healthy chocolate.

Research has shown that the negative affect of failing to meet standards has emerged since the person considers him/herself responsible for the failure (Duval, Silvia, and Lalwani 2001). Thus, if people do not perceive themselves to be responsible for the failure, the failure does not generate any discomfort. In study 2, we manipulated the self's responsibility in selecting the food options by letting either the participants or the experimenter select between dried fruit mix (healthy) and brownies (unhealthy). Results showed that when participants selected the brownies, they evaluated it as less tasty in front of a mirror compared to the no-mirror condition. However, when the experimenter selected the brownies, its taste did not differ between the mirror and no-mirror conditions. Taste evaluations of the dried fruits mix did not differ between the mirror and no-mirror conditions regardless of who made the choice. We posit that if people are provided with more plausible external cause for negative affect they will not attribute it to the food taste. In study 3, half of the participants were told that the background music could influence their affective reactions while the other half were not provided such information. We replicated the effect of mirror on unhealthy food taste evaluation for those who were not informed about the influence of music. However, taste evaluations of the unhealthy food did not differ between the mirror and no-mirror conditions for those who were informed that music could influence their affective reactions.

Don't Go To the Grocery Store Hungry?

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Common wisdom suggests that when consumers go to the store hungry, they buy and consume more (Kahn and McAlister 1997). However, the findings from this proposal challenge this assumption. In particular, we look at the effects of hunger on both attractiveness and consumption. We find that hungry consumers are more likely to buy hedonic products, but not utilitarian products than consumers who are not hungry. Furthermore, across four studies we find that hunger interacts with cognitive load to influence

consumption. Specifically, we find that hunger alone has no effect on the amount of hedonic food consumed; rather, it is only when consumers are both hungry and under high cognitive load that they eat more hedonic food items. We propose that this effect is driven by a process of counteractive self-control in limiting the amount of hedonic foods consumed. When given the opportunity to eat as much of a hedonic food item as wanted, participants who were hungry and whose capacity to engage in counteractive self-control was intact, estimated more calories in the bag of M&M's prior to the start of eating than participants in any other condition. Additionally, when calorie information was made salient for the hedonic food item, those whose capacity for self-control was depleted were able to decrease the amount of hedonic consumption.

Specifically, the goal of study 1 is to examine whether hedonic items, (food and non-food), are shown more preference when hungry than when not hungry. We are interested in testing whether self-control moderates the relationship between hunger and preference for hedonic food items, specifically we examine utilitarian food and non-food item preference when hungry and not hungry. As such, in Study 1 we assess whether consumers find hedonic items more attractive than utilitarian items by asking them to rate them individually under situations of low and high cognitive load and under feelings of hungry and not hungry. The results of Study 1 indicate that consumers view hedonic food items as being more attractive than hedonic non-food items and utilitarian items when hungry compared to not hungry. Participants rated food items as being preferred only when they were hedonic in nature. Additionally, participants did not consider non-food items more attractive when hungry. This demonstrates that hunger impacts consumer choices when evaluating food products, however this is only applicable to hedonic food products and does not appear to extend beyond this category.

The main objective of the second experiment is to test the underlying theory of counteractive self-control by examining how consumers rate the attractiveness of hedonic food items when hungry versus not hungry. We also test the moderating role that self-control has on the relationship between hunger and preferences for different types of hedonic foods. Specifically, in experiment 2 we assess whether consumers find hedonic food items more attractive than "sinless" food items by asking them to rate them under situations of low and high cognitive load in addition to feelings of hungry and not hungry. We find a significant interaction between hunger and load on food item attractiveness. Participants who were under high load rated the food items more attractive when hungry versus not hungry. However, for participants who were under low load, the difference between hungry and not hungry was not significant. Although the three-way interaction between hunger, load, and type of food was non-significant, a planned contrast comparing the key cell (hungry, high load, hedonic food items) to all other conditions reveal that the attractiveness ratings in the hungry, high load, hedonic food items cell were significantly higher than in any other condition. This result is as expected given that in the "sinless" conditions counteractive self-control should not be employed given the lack of calories in the products.

Study 3 tests our second hypothesis by measuring actual consumption, as it relates to hunger using hedonic and utilitarian food items, but only under conditions of low cognitive load. We test consumption by using hedonic and utilitarian food items (M&M's versus Carrots) under conditions of hungry and not hungry. Results indicate a main effect of hunger such that hungry participants consumed significantly more food than those who were not hungry. There was a significant interaction between hunger and load on food item consumption. When hungry, participants ate significantly more when under high load than low load. There was no difference in the amount consumed when not hungry. We also found a significant interaction between food item and load; under high load participants ate significantly more M&M's than when under low load. There was no difference in the number of carrots eaten. This should all be interpreted in light of a significant three way interaction. In support of H2a, high load participants ate more of the hedonic food item when hungry versus not hungry. Under low load the difference between hungry and not hungry was not significant. In support of H2b, hungry participants ate more of the utilitarian food item regardless of load versus not hungry.

The main objective of Experiment 4 is to test hypothesis 2 and gain a better understanding of the underlying processes. We test consumption by using hedonic food items only under conditions of hunger and not hungry when calorie information is either present or not present. Given the new calorie content posting laws in New York State restaurants, we test whether making the calorie information salient will act in such a way as to reinforce self-control even under conditions of ego depletion. Additionally, we further explore the role of counteractive self-control by employing the calories estimation procedure conducted in Zhang, Huang, and Broniarczyk (2010). We find that providing participants with calorie information allowed the nutritional information to become salient even under conditions of ego depletion. In turn, this allowed participants to employ self-control and stop themselves from overeating the hedonic food item even when hungry.

Lastly, to test the impact of counteractive self-control on participant's consumption, we evaluated the estimated calorie content of the M&M's. After removing all cases where calorie information was made available, we conducted a 2 (hunger: hungry vs. not hungry) x 2 (load: low vs. high) ANOVA on estimated calorie content for a bag of M&M's. We found the predicted hunger x load interaction. When hungry, participants estimated there were significantly more calories when under low load vs. high load. The estimated calorie content for not hungry participants failed to reach significance.

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8.6 Individual Papers: Brand Betrayal, Redemption, and Forgiveness

Room: Maple Room A

Chair: Harish Kapoor, Acadia University

When Does an Attack to the Brand Call for Action? The Role of Self-Brand Connection and Implicit Self-Esteem

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In the modern marketplace consumers are often exposed to negative brand information. Existing research shows that brand commitment, which reflects consumers' desire to have a particular brand, influences how people respond to negative brand information. After reviewing negative brand information, low commitment consumer revisit their attitude toward the brand downward, whereas high commitment consumers tend to counterargue the negative information and resist attitude change (Ahluwalia, Burnkrant and Unnava 2000). Brand commitment is influenced by the extent consumers identify and connect with the brand (Escalas and Bettman 2003). In this paper, we propose that to understand how consumers respond to negative brand information, it is important to examine the interplay between their connection with the brand and their implicit self-esteem.

Literature suggests that consumers who are connected with a brand include the brand in their self-concept (e.g., Belk 1988; Escalas and Bettman 2003). Seminal work by W. James (1890) suggests that when objects are incorporated in the self, they elicit the same emotional responses and behaviors as the self. Therefore, an attack to the brand is analogous to an attack to the self. When people are attacked, they use an arsenal of defensive strategies to maintain a positive self-evaluation. The extent to which individuals rely on defensive strategies is influenced by their implicit self-esteem, which is an automatic evaluation of the self. Many studies show that

people with high implicit self-esteem are not defensive following a self-threat, whereas those with low implicit self-esteem are defensive, suggesting that implicit self-esteem buffers people against threats (e.g., Spalding and Hardin 1999; Greenwald and Farnham 2000). Another factor that influences the extent to which people defend against self-threat is whether their self is activated or not. People defend more when the self is activated (Steele, Spencer and Lynch 1993). Self-affirmation theory (Steele 1988) suggests that defensive responses prompted by a self-threat can be eliminated when individuals can restore their positive self-evaluation by affirming important aspects of the self.

By building on these findings, we suggest that consumers who are connected with a brand will defend the brand when it is under attack. More importantly, we predict that consumers' defensive responses will be accentuated among those with low implicit self-esteem when their self-concept is activated. Finally, we predict that their defensive response will dissipate if they have the opportunity to self-affirm. We tested these predictions in three experiments.

In experiment 1, we first measured participants' implicit self-esteem by using the name-liking measure (Gebauer et al. 2008). Then, we assessed the connection participants had with Starbucks by using the self-brand connection scale (Escalas and Bettman 2003). Next, participants were randomly assigned to write an essay that either activated or not the self. Finally, participants were presented with an unfavorable editorial about the Starbucks and asked to report how their attitude toward the brand might have changed. Results show a main effect of self-brand connection, whereby participants who felt connected with Starbucks were less likely to devalue the brand after reading the negative editorial. This effect, however, was qualified by the three-way interaction between self activation, self-brand connection and implicit self-esteem. When the self was not activated, we observed only the effect of self-brand connection on attitude change and not effect of implicit self-esteem. However, when the self was activated, participants' self-brand connection and their implicit self-esteem jointly influenced attitude change. In particular, participants with low implicit self-esteem who felt connected with Starbucks reported more favorable attitudes toward the brand. We replicated these findings in a follow-up experiment using the implicit association test (IAT; Karpinski and Steinman 2006) as a measure of implicit self-esteem.

The objective of experiment 2 was to provide converging evidence for our predictions by using a different brand (Facebook) and to investigate the underlying process. We first assessed participants' implicit self-esteem and their connection with Facebook by using the same measures as in experiment 1. Participants then wrote an essay that activated (or not) the self. Next, participants read a negative editorial about Facebook. Finally, participants were asked to report their attitude change and respond to some process measures. Similar to experiment 1, the results revealed a significant effect of self-brand connection, which was qualified by the three-way interaction. When the self was not activated, no effect was significant. However, when the self was activated, participants with low implicit self-esteem had a more favorable attitude toward Facebook compare to their high implicit self-esteem counterparts. Participants' net positive brand thoughts partially mediated the effect.

In our final experiment, we examined whether affirming the self might dissipate the defensive response of low implicit self-esteem individuals. As in experiment 1, participants first filled in a measure of implicit self-esteem and reported their self-brand connection with Starbucks. To activate the self, participants were asked to write a brief essay. Next they were asked to read a negative editorial about Starbucks. After reviewing the editorial, half of the participants were affirmed while the other half were not. Finally, participants were asked to report their attitude change toward Starbucks. We found a main effect of self-brand connection, which was further qualified by the three-way interaction. When participants were not affirmed, we replicated the results from previous experiment. That is, participants with low implicit self-esteem who were connected with Starbucks boosted their brand attitude. However, when participants were affirmed, low implicit self-esteem participants who felt connected with Starbucks did not defend the brand. It seems that it is possible to buffer low-implicit self-esteem participants against self-threats by making them feel good about themselves.

This research demonstrates the importance of examining the interplay between consumers' connection with the brand and their implicit self-esteem when trying to gain a better understanding of how people respond to negative brand information. After receiving negative brand information, low implicit self-esteem consumers who are connected with the brand defend the brand as they would defend the self.

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Is Negative Brand Publicity Always Damaging? The Moderating Role of Power

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As consumers have increasing access to multiple sources for product information (e.g., blogs, television, news outlets, etc.), the ability to manage negative publicity becomes increasingly difficult. Prior research has demonstrated that consumers place more weight on negative than positive information in forming judgments (Eagly and Chaiken, 1993) showing that negative publicity can cause substantial harm. For example, the recent events surrounding Toyota's faulty accelerator and brake pedals have led to detrimental effects on the brand.

Surprisingly, little research has focused on characteristics of the message recipients and how they might influence responses to negative publicity. In this vein, we examine the effect of consumers' power on responses to negative publicity. Power, defined by Anderson and Berdahl (2002) as "the ability to provide or withhold valuable resources or administer punishments", is an important characteristic to study, as it is ubiquitous and highly malleable. In many instances throughout our daily life, we may be shifting between a powerful (e.g., meeting with a subordinate) and a powerless (e.g., meeting with a boss) mindset, or frame of reference. Further, ambient marketing activity (e.g., advertising, point-of-sale displays, etc.) can influence a consumer's sense of power. Aside from these situational variations, power may also be conceptualized as an individual difference variable, which is idiosyncratic to specific consumers (Anderson and Galinsky, 2006).

We know that negative publicity can be damaging for brands (Ahluwalia, Unnava and Burnkrant, 2000; Monga and John, 2008). In this research, we suggest that powerful individuals are less likely to be affected by negative publicity than powerless individuals. Galinsky et al., (2008) find that powerful people possess more freedom from influence of external forces compared to powerless people. Powerful people are less influenced and constrained by salient information in the environment, because power increases sensitivity to internal states and increases confidence in one's own thoughts (Brinol et al., 2007). This sensitivity to internal states suggests that powerful individuals may rely more on their own thoughts about the brand and are less likely to be influenced by negative publicity information, compared to powerless individuals. Thus, upon exposure to negative publicity, brand evaluations of powerful individuals would be more favorable than those of powerless individuals.

In study 1, we test our hypothesis using a power manipulation (Galinsky et al., 2008). In the powerful condition, participants wrote about a situation in which he/she controlled the ability of another person or persons to get something they wanted. In the powerless condition, participants wrote about a situation in which another person controlled the ability of the participant to get something he/she wanted. Next, participants were exposed to a press release stating that Mercedes Benz was experiencing manufacturing problems on

their new line of cars. Subsequently, participants rated the new line of cars and the Mercedes Benz brand. As expected, participants in the powerful condition rated the brand more favorably than participants in the powerless condition.

In study 2, we examine the role of source credibility (Brinol et al., 2004). We anticipate that for a less credible source, we would expect that powerful individuals would be less susceptible to the negative publicity than powerless individuals (as in our prior study). However, for a more credible source, we expect that powerful individuals would be more likely to attend to the negative publicity and their brand evaluations would decrease. As a result, differences in brand evaluations between powerful and powerless individuals would dissipate.

In study 2, participants were exposed to the same power manipulation as in study 1. The source of the press release was indicated as either a highly credible source (*The Wall Street Journal*) or a significantly less credible source (*The National Enquirer*). We also included a control condition to assess baseline evaluations for the brand. Participants in this condition were not exposed to the negative publicity. Thus, we used a 2 (Power: High, Low) x 3 (Source Credibility: High, Low, Control) between subjects design. Our results show a significant interaction between power and credibility on brand evaluations, such that in the low credibility condition powerful individuals evaluate the brand higher than powerless individuals. However, this difference is not significant in the high credibility condition or in the control condition.

The findings in our paper contribute to the negative publicity literature and to the largely understudied area of consumer power. Prior research shows that negative publicity can adversely affect the brand. We show that this effect is more likely to happen for powerless than powerful consumers. We also demonstrate that this effect dissipates when the negative information comes from a highly credible source.

How and Why Brand Relationships lead to Brand Forgiveness

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Brands fail. To recover, they must understand how consumers respond to such transgressions. Perhaps of greatest importance is the relationship between brands and individuals prior to such failure. As such, we investigate whether and how Brand Relationships lead to forgiveness. In psychology, forgiveness has been shown to have the ability to repair interpersonal relationships following transgressions (Fincham 2000). However, the role of forgiveness in the consumption domain is unknown. In interpersonal relationships, commitment increases forgiveness (e.g. McCullough et al. 1998). Recent research has provided initial support that Brand Relationships indeed can buffer brand transgressions (Donovan, Priester, Park and MacInnis 2010): When a brand had failed, individuals who felt close to a brand did not decrease their intent to use the brand in the future, whereas those who felt distant intended to decrease their future use of a brand which had transgressed.

Though Donovan et al. begins to address the question of forgiveness, it leaves two key questions unaddressed. First, do Brand Relationships influence forgiveness, as well as future behavioral intentions? Second, by what processes do Brand Relationships lead to such influences? We conduct a study to explore these questions. We hypothesize:

H1: Brand Relationships will act as a buffer following a brand transgression.

If Brand Relationships do buffer transgressions, we want to understand how and why. We investigate the underlying psychological processes leading to brand forgiveness.

In interpersonal relationships, commitment towards the relationship partner creates the desire to persist in the relationship (Rusbult and Buunk 1993). We hypothesize that a similar desire will emerge with brand relationships. Thus, we hypothesize:

H2: Individuals with close Brand Relationships will have a desire to restore their relationship with the brand following a failure.

It is well established that individuals are able to arrive at desired conclusions by the use of biased cognitive processing (e.g. Kunda 1990; Wood, Pool, Leck and Purvis 1996). We feel individuals with close Brand Relationships, that have a desire to restore the relationship, will engage in such Positively Biased Processing, which will influence forgiveness. Specifically, we hypothesize:

H3: Individuals with close Brand Relationships engage in Positively Biased Processing following a brand failure.

Forty nine students at a large Western University participated in fulfillment for course credit. Participants completed a booklet in which they reported a previous brand failure.

Brand Relationship was assessed with the Brand Attachment measure advanced by (Park et al. 2010). Note that there are multiple ways of conceptualizing brand relationships, Escalas and Bettman (2003) focus on brand self-connection, Park et al. (2010) focus on the additive influences of brand self-connection and brand prominence. Yet a third perspective is offered by Aron, Aron, and Smollen (1992), in which they assess the extent to which an other person is included in the self (Inclusion of Other in the Self Scale (IOS) consisting of 7 venn-like diagrams with two circles, overlapping at differing degrees from least overlapping and least inclusive to most overlapping and most inclusive). In the studies above we used the Park et al (2010) approach, but ancillary analyses reveal that the effects are identical when we use just brand self-connection or IOS.

Analyses reveal that Brand Relationship has a positive main effect on forgiveness ($F(1, 48) = 9.29, p = .0038$), supporting H1. Additionally, we find confirmatory evidence that Brand Relationship and forgiveness are separate constructs, correlation = .40.

To examine our model of Consumer Brand Forgiveness, we performed two mediation analyses, following Baron and Kenney (1986) 4-step regression model. First, we test part one of the model:

There emerged a main effect of Brand Relationship on Positively Biased Processing $.38(F(1, 48) = 8.60, p = .0052)$. Brand Relationship has a main effect on desire to restore the relationship $.75(F(1, 48) = 30.93, p < .0001)$. And a main effect of desire to restore the relationship on Positively Biased Processing $.62(F(1, 48) = 64.08, p < .0001)$. For the final step, desire to restore the relationship completely mediates the link between Brand Relationship and Positively Biased Processing. Brand Relationship becomes insignificant $-.14(F(1, 48) = 1.34, p = .25)$ and desire to restore the relationship solely predicts Positively Biased Processing $.70(F(1, 48) = 48.58, p < .0001)$. Sobel = 4.35, $p < .0001$.

Thus, a close Brand Relationship leads to the desire to restore the relationship, which leads to Positively Biased Processing.

There emerged a main effect of desire to restore the relationship on Positively Biased Processing $.62(F(1, 48)= 64.08, p < .0001)$. The desire to restore the relationship positively influences brand forgiveness $.65(F(1, 48)= 28.7, < .0001)$. There is a main effect of Positively Biased Processing on forgiveness $.97(F(1, 48)= 61.85, p < .0001)$. Finally, Positively Biased Processing completely mediates the link between the desire to restore the relationship and brand forgiveness. When regressed simultaneously Positively Biased Processing remains significant $.87(F(1, 48)= 20.83, p < .0001)$ and desire to restore the relationship is no longer significant $.11(F(1, 48)= .47, p = .5)$. Sobel= 3.96, $p < .0001$. These mediation analyses support H3.

Desire to Restore the Relationship to Positively Biased Processing to Forgiveness

Following a brand transgression, individuals with a close Brand Relationship have a desire to restore their relationship with the brand. Thus, they engage in Positively Biased Processing which influences brand forgiveness. Through this study, we have shown support for our model of Consumer Brand Forgiveness. We find that Brand Relationships do act as a buffer, rather than an intensifier, of brand transgressions. We are able to demonstrate the underlying psychological processes that lead to brand forgiveness. Brand Relationships create a desire to restore the relationship following a transgression, which motivates individuals to engage in Positively Biased Processing in order to forgive the brand.

While this research provides evidence in support of Brand Relationship influencing forgiveness through a specific psychological process, it raises an interesting question: When does a brand transgression cause even those who feel close to the brand to not forgive (e.g. Grégoire, Tripp, and Legoux 2009)? The present research suggests that when a transgression influences the desire to maintain the relationship, these transgressions may hurt even close customers. Such speculation will be pursued in future research.

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Branded Products in the Service Encounter: An Information Integration Model of Consumer Evaluations and Intentions

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The effects on the equity of a brand when it is involved in a strategy that combines it with at least one other product or brand have been examined within the context of brand alliances (Rao, Qu, & Ruekert 1999; Samu, Krishnan, & Smith 1999; Simonin & Ruth 1998), product bundling (Gaeth et al 1990; Simonin & Ruth 1995), dual branding (Levin & Levin 2000), composite branding (Park, Jun & Shocker 1996), and ingredient branding (Levin et al. 1996; McCarthy & Norris 1999; Venkatesh & Mahajan 1997). The joint-branding literature has established that brand perception, evaluation, and value are affected by the joining of two or more brands through a collaborative brand activity.

The question then arises as to whether similar brand effects might occur when a specific product is identifiably present in the performance of a service (hereafter referred to as service-product encounters). The purpose of this research is to investigate the extent to and processes by which service-product encounters affect the evaluative and behavioral outcomes for both the service brand and the product brand and to determine under what conditions such effects might occur. To accomplish these purposes, a conceptual model is shown below accompanied by a set of hypotheses. These were derived from branding, categorization, and information integration research. Brief details of an experiment and its results are also given.

- H1a: As the quality of the component product increases, the attitude toward the component product will become more positive.
- H1b: As the quality of the component product increases, the attitude toward the host service will become more positive.
- H2a: As the quality of the host service increases, the attitude toward the host service will become more positive.
- H2b: As the quality of the host service increases, the attitude toward the component product will remain unaffected.
- H3: The nature of the impact of product quality on attitude toward the service will be moderated by the quality of the service such that product quality will have a stronger effect when service quality is low than when service quality is high.
- H4a: As attitude toward the host service becomes more positive, the intent to patronize the service increases.
- H4b: As attitude toward branded component product increases, the intent to purchase the component product also increases.
- 2x2 between-subjects experiment ($n = 229$) manipulating quality level of host service (hotel) and quality level of a component product (shampoo).

Dependent measures – attitude toward service/product, likelihood of purchase.

Preliminary MANOVA tests verified the hypothesized linkages between the set of treatment variable and the set of endogenous variables.

H1a and H1b confirmed. Component product quality has a positive effect on attitude toward the component product [$F(1, 225) = 152.28, p < .0001, M_{\text{low quality}} = 4.19$ vs. $M_{\text{high quality}} = 6.06$] and component product quality has a positive effect on attitude toward the host service [$F(1, 225) = 24.07, p < .0001$].

H2a and H2b confirmed. Level of host service quality has a positive effect on attitude toward the host service [$F(1, 225) = 27.45, p < .0001$] but has no effect on attitude toward the component product [$F(1, 225) = .02, p = .898$].

H3 confirmed. A significant interaction results on attitude toward the host service [$F(1, 225) = 6.22, p = .013$].

Component product quality has an impact on attitude toward the service when host service quality is high [$F(1, 225) = 4.36, p = .039$], and a highly significant impact when host service quality is low [$F(1, 225) = 20.11, p < .0001$].

H4a and H4b confirmed. Tests for establishing mediation performed following Baron and Kenny's (1986). The following three conditions are met:

the independent variables affect the mediators (established by confirmation of H1-H3)

the independent variables affect the dependent variables (established by ANOVA results)

when the mediators are tested simultaneously with the independent variables on the dependent variables, the mediators must be significant and the effects of the independent variables must be reduced (established by ANCOVA results).

a. Covariate = attitude toward the host service.

b. Covariate = attitude toward the component product.

*Significant at .05. **Significant at .01. ***Significant at .0001.

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8.7 Individual Papers: Consumer Budgeting of Time and Money

Room: Maple Room B

Chair: Jing Wang, Singapore Management University, Singapore

There's No Such Thing as a Free Lunch: Consumers Perception of Time Opportunity Costs in Product Giveaways

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Aaron Sackett, University of St. Thomas, USA

We all love getting something for free. We flock to giveaways of all manner of products regardless of whether we expect to use them or not. Shampanier, Mazar, and Ariely (2007) find that free (a zero price) is special, generating positive affect that boosts the attractiveness of the thing being given away. Often times, consumers must make time investments in order to take advantage of a product giveaway. People must spend time waiting in line to receive their free Ben & Jerry's ice cream cone. Obviously, the busier one is the harder it will be to make the time investments needed to realize the benefits of a free promotion. The question we examine here is whether consumers consider these time opportunity costs when they evaluate a product giveaway.

Given the strong affective reaction people have to zero-price offers (Shampanier, Mazar, and Ariely 2007), we expect that people will neglect time opportunity costs except in situations where time budgets are particularly salient. In such situations, the presence of time opportunity costs likely reduce one's ability to take advantage of a free product offer generating frustration that will lower evaluations of that offer. We explore our expectations and develop formal hypotheses in three studies.

In three studies, we examine differences in evaluations across time of free products that require a time investment by consumers in order for them to receive the benefits of the product, while varying whether time or money resources are salient. We expect that when a free product is received in the near term, consumers will value it more when money v. time is salient. Across time, we expect a significant interaction of resource salience and event time horizon on free product evaluations. Time opportunity costs are expected to be greater in the near vs. far future because people perceive greater slack in their time budgets now vs. in the future (Zauberman and Lynch 2005).

Further, when considering an offer available in the near-future consumers are expected to construe the offer concretely paying particular attention to the feasibility aspects of the offer. When considering an offer available in the distant future, on the other hand, consumers are expected to construe the offer more abstractly paying particular attention to the desirability aspects of the offer (Liberman and Trope 1998; Trope, Liberman, and Wakslak 2007). As a result, of these differences in construal, we expect evaluations of free product offers will differ depending on whether the offer is available now vs. in the future. The concrete construal is expected to strengthen the affect experienced in response to a zero-price offer or to time opportunity costs. That is, in the here and now consumer reactions are more visceral. Construing the offer or time opportunity costs more abstractly is less visceral and so likely less affective.

Combining these expectations we propose:

- H1** When a free product is to be received in the near-term, evaluations of the product will be more positive when money v. time is salient.

- H2** The effect of a free product's lengthening event time horizon is moderated by resource salience:
- (a) evaluations decline when money is salient, and
 - (b) evaluations improve when time is salient.

In Study 1, participants are offered a free weekend vacation either in the near or distant future and money (time) is made salient by telling them they must pay money (time) to cover associated taxes. To pay money they are told that they will have to attend marketing pitches about the hotels offering the vacation. Study 2 is nearly identical to Study 1, except that an additional condition is added wherein participants must commit now to a vacation to be received in the distant future. Two competing hypotheses are developed that get at the effect of construal level on our results.

- H3a** When time resources are salient, the evaluation of a free product to be received in the distant future will not differ between when the offer must be committed to in the near v. distant future. These evaluations will be higher than the evaluation when the product is to be received in the near future.
- H3b** When time resources are salient, the evaluation of a free product offer that must be committed to in the near future will not differ if the product will be received in the near v. distant future. These evaluations will be lower than the evaluation when the offer must be committed to in the future.

Study 3 primes money vs. time salience before participants are offered a free weekend negotiation seminar so that there are no direct money or time costs associated with the free product.

We find support for H1 and H2 across all three studies. Evaluations of the free product to be received in the near future are higher when money vs. time is salient. When money is salient free product evaluations decline when an offer is in the distant future. When time is salient, on the other hand, free product evaluations improve when an offer is in the distant future. We also find support for H3b indicating that consumers use their time budget estimates for the time of commitment when evaluating a new product offer.

Whereas Frederick et al. (2009) find evidence that consumers routinely ignore their money opportunity costs, we find that when time is salient consumers do consider their time opportunity costs. Consistent with differences in perceptions of slack in their time budgets across time (Zauberman and Lynch 2005), consumers appear to recognize that their schedules won't easily accommodate the time needed to realize the benefits of a free product in the near future and the negative affect experienced lowers free product evaluation. Accommodating that needed time in the future is much easier and so the positive affect experienced from the free product offer increases free product evaluation.

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Effects of Financial Constraints and Novelty Seeking on Consumer Creativity

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Paola Cillo, Bocconi University

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Are financial constraints a threat to creativity? Research in management and strategy seems to suggest that abundant financial resources favor innovation and creativity (e.g., Amabile, 1996). Nevertheless, research on creativity has shown that constraints may foster rather than hinder creativity. For some individuals, for instance, time constraints, if not extreme, can enhance creativity by inhibiting conventional responses to a problem and promoting unusual, unexpected ones (Ridgway and Price, 1991; Burroughs and Mick, 2004). Similarly, input resource constraints, i.e., 'using what is at hand' can lead to the ideation of products that are judged as highly innovative and creative, and that are successful in the market (Goldenberg et al., 2001; Moreau and Dahl, 2005). Empirical evidence as to whether financial constraints also increase creativity is lacking. However, the psychology and creativity literatures have provided conceptual and experimental evidence that individuals can be more creative when bounded by constraints than when faced with a 'blank state' (see Finke et al., 1992; Goldenberg et al., 2001). This research contributes to the literature on consumer creativity by analyzing the effects of financial constraints on consumer creativity in both product ideation and problem-solving tasks. In addition, following recent recommendations on the adoption of an interactionist perspective for the study of creativity (Runco and Sakamoto, 1999; Burroughs and Mick, 2004), the effect of constraints is not analyzed in isolation, but in interaction with an individual-difference factor such as novelty seeking traits.

When individuals approach a creative task, their default approach is to retrieve an existing solution from memory and try to implement it, following a 'path of least resistance' (POLR - Ward, 1994; Ward et al., 2000). In terms of financial resources, this would simply mean to acquire the inputs needed in order to implement the retrieved solution. However, following a POLR may preclude the identification of other, more creative solutions. Financial constraints may limit the inputs available to implement the solution retrieved following the POLR, because one could not afford one or more of the identified inputs. In the case of input resource constraints, when the first POLR solution retrieved is not implementable because some of the inputs are not available, individuals may attempt to retrieve another solution to the problem, one which utilizes the set of inputs on hand, and follow a top-down processing strategy along a second POLR (e.g., Moreau and Dahl, 2005). In the case of financial constraints, however, there is no specific restriction on the set of inputs that are available, since several solutions may still be implementable or affordable. Therefore, individuals have no cues to retrieve a specific POLR solution that satisfies the constraints. Consequently, such constraints may force individuals to deviate from a POLR strategy in favor of a more creative processing strategy to approach the task.

However, if the inhibition of the POLR strategy due to the active financial constraints is to result in higher creativity, individuals need to be able to draw upon a wide array of different perspectives and approaches. Being open and attracted to a variety and new and different stimuli provides individuals with the kind of raw material that is necessary to convert constrained thinking into truly novel and useful ideas. Novelty seeking (Hirschman, 1980; Acker and McReynolds, 1967) is a personality trait that encompasses the aforementioned characteristics. Due to their innate desire to seek out the new and different (Hirschman, 1980, p. 285) novelty seeking individuals have access to a variety of experiences and perspectives (McCrae and Costa, 1997), and therefore should respond with elevated creativity to a constrained situation. By contrast, individuals low on novelty seeking, lacking the background of experiences and perspectives needed to activate creative processing, should be less likely to benefit from the heightened directionality in thinking and generating ideas associated with constraints, and more likely to follow a POLR strategy.

Experiment 1 assesses the effect of financial constraints, and of the interaction between financial constraints and novelty seeking, on creativity of the outcome of a product ideation task. Participants were given the goal of designing a toy using a set of 10 items. They were either told they could choose any item from a list specifying the price of each item, provided that they stayed within a fixed budget (active financial constraint condition), or were told they could choose freely between the items (inactive financial constraint condition). Novelty seeking was measured by means of the consumer novelty seeking scale (Manning et al. 1995). Two expert judges rated the creativity of the developed products based on the criteria of novelty and adequacy (Amabile, 1983; Goldenberg et al., 1999; Moreau and Dahl, 2005; Runco, 2007). Results show that while financial constraints did not affect significantly the creativity ratings of the products ideated by low novelty seeking participants, they significantly increased the creativity ratings of the product ideated by high novelty seeking participants.

Experiment 2 assesses the effect of financial constraints, and of the interaction between financial constraints and novelty seeking on the creativity of the solution to a problem-solving task.

Participants were confronted with a scenario in which a problem occurred (e.g., a toy broke and needed to be fixed) and were asked to find a solution, which was either free of financial constraints, or subject to a fixed budget constraint. The dependent measure was obtained as in Experiment 1. While financial constraints did not affect significantly the creativity ratings of the solutions proposed by low novelty seeking participants, they significantly increased the creativity ratings of the solutions proposed by high novelty seeking participants.

Results of two experiments suggest that constrained financial resources may be beneficial to consumer creativity. Specifically, results suggest that financial constraints increase creativity in individuals characterized by innate novelty seeking benefit from financial constraints. In other words, for individuals with inherent tendencies toward novelty seeking behaviors, it is true that 'less is more', since financial constraints enable more creative processing and lead to products and to solutions to consumption problems that are more creative, i.e., superior in terms of originality and adequacy.

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Fear and Financial Decision Making

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The number of individual investors who trade stocks online has significantly increased in recent years. What used to be the exclusive work of stock market brokers is now the mundane task of millions of individual consumers around the globe. Surprisingly, consumer researchers have paid little attention to how individuals make financial decisions. Of particular interest is the extent to which fear influences individuals' stock trading decisions.

Since an investor's decision can easily result in meaningful financial losses and the level of certainty and control over the value of a stock is particularly low, investors are often likely to experience fear. The press often cites investors' fear as a main force in the stock market as well (e.g., "Investor Fears Ignite Sell-Off," USA TODAY, May 2010). However, scientific evidence for role of emotions on stock market decisions is yet correlational or indirect (e.g., Hirshleifer and Shumway 2003). To fill out these gaps, this paper relies on

laboratory experiments and the orthogonal manipulation (and measure) of emotions. Specifically, we investigate (a) the causality of fear to investors' selling decisions, (b) the mechanism through which the effect takes place, and (c) the robustness of the mechanism across different market trends.

It is well known that fear leads to more pessimistic estimates of future events as well as to risk-averse tendencies (Lerner and Keltner 2000, 2001). Also, there is mounting evidence that people rely on their current state of mind to predict their own future preferences as well as others' thoughts, feelings, and actions (Loewenstein et al. 2003; Van Boven & Loewenstein 2003). In a stock market context, this means that an investor might rely on her current emotions when she estimates what other investors would do, which would in turn affect her own decision. Precisely, a fearful investor is more likely to believe that others will behave in a more risk averse manner (i.e., sell the stock), which in turn will lead the investor to accelerate selling behavior in anticipation of a drop in the value of the stock. If this is accurate, the fear effect should be less pronounced if a fearful investor does not focus on *other* people. In other words, if a task leads a fearful investor to focus on something else other than his/her peer investors' behaviors, then this emotion based social projection should not fully operate and the impact of fear on selling decision would be mitigated.

To examine the causal role of fear, we induced incidental emotion (fear vs. control) orthogonally through video clips (horror movies vs. documentaries). In a subsequent, purportedly irrelevant, consequential financial task, what we called a cash-out game, each participant decided when to sell a stock (i.e., cash out), while the stock value changed up or down from round to round for 25 rounds. We hypothesized that fearful people (vs. control) would cash out earlier, if they predict others' decisions based on their emotion. In experiment 1, we implicitly led all participants to predict others' decisions, by making their stock value in the game contingent on others' decisions – if any (no) participant in a lab in a given round cashed out, the value of the stock in the next round would decrease (increase). The result showed that, as predicted, the fear group cashed out significantly earlier than the control, supporting the causality of fear on selloffs. In experiment 2, we examined the underlying mechanism more directly by manipulating a participant's need to predict others. When the stock values were determined contingently on others' decisions as in experiment 1, fearful people (vs. control) cashed out significantly earlier. In contrast, when the stock values were randomly determined (i.e., one did *not* need to predict others), the earlier sell-off of the fear group disappeared. In experiment 3, when the cash out game was explicitly framed as a stock trading decision task, fear accelerated selling decisions. However, when the same game was framed as a casino-like game, fear did not accelerate cash out decisions (the effect was actually reversed). Together, these results demonstrate that social projection represents a critical underlying mechanism through which fear fosters selling decisions.

The fear effect and the underlying process were robust independently of price trends. In experiment 1, the market trends were generated by participants. In experiment 2, two mirror-image pre-determined price patterns were used. In experiment 3, twenty nine randomly pre-determined data patterns were used. Across these diverse price trends, fear facilitated selling decisions under high social projection conditions (i.e., others-determining price, stock market frame) but not under low social projection conditions (i.e., randomly determined price, casino-game frame). These results show that an individual tends to rely on her own emotional state in order to estimate other people's behavior, independently from information from price trend itself.

Our results imply that fearful individuals do not necessarily make more or less money. Since fearful individuals will sell their stock earlier regardless of market trends, they will *make* less money if the value of the stock shows, for instance, a continuous upward trend, whereas they will *lose* less money if the value of the stock shows, on the contrary, a continuous downward pattern. Future research should further investigate the relationships among fear, early selling, and its impact on stock value.

These days millions of individual consumers buy and sell stocks online. As this trend grows, so does the need to better understand how decisions are made in this context, and how emotions, in particular, influence this process. This article represents an initial step toward this goal.

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Discretionary Spending Under Financial Constraints – The Role of Self-Concept Clarity and Perceived Stress

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Consumers spend on discretionary items even though they may be financially constrained (Homan 2010). Having financial constraints can be a major source of stress for consumers. Previous research suggests that high (vs. low) self concept clarity individuals are less likely to perceive their situation stressful. In this paper, we examine the effect of self-concept clarity (SCC) and perceived stress on discretionary spending under financial constraints.

SCC is the extent to which the contents of an individual's self-concept are clearly and confidently defined, internally consistent, and temporally stable (Campbell et al. 1996). Past research suggests that low (vs. high) SCC individuals perceive different levels of stress and respond differently when they are under stressful situations (Treadgold 1999).

Coping is a conscious, volitional attempt to regulate the environment or one's reaction to the environment under stressful conditions (Compas et al. 2001). People may adopt different coping strategies in stressful situations (Connor-Smith and Flachsbart 2007). There are numerous models to describe the structure of coping, with distinctions made between problem-focused and emotion-focused or active (engagement, approach) and avoidant (disengagement; Compas et al. 2001) coping strategies.

SCC plays an important role in determining an individual's ability to cope with stress (Smith et al. 1996). Low SCC individuals usually adopt avoidant coping strategies in stressful situations. High SCC individuals adopt active coping strategies only if they perceive their situation as stressful (e.g., under conditions of intense stress).

Individuals with financial constraints must be able to exercise self-control well before making a purchase; but, this is not always easy. Baumeister and Heatherton (1996) argue that effective self-regulation requires the individual to transcend the immediate situation by considering the long-term consequences and implications. Consistent with this view, EPO is thought to facilitate effective self-regulation. However, effective self-regulation through EPO may be impaired for low (vs. high) SCC individuals.

First, we propose that EPO moderates the effect of SCC on discretionary spending tendency under financial constraints. For high SCC individuals, discretionary spending tendency under financial constraints is lower when they elaborate (vs. do not elaborate) on potential outcomes of their behavior. When high SCC individuals elaborate on potential outcomes of their behavior, they are likely to generate and evaluate the positive and negative outcomes of their behavior. Consequently, salience of the stress associated with their financial situation increases. High SCC individuals adopt active coping strategies when they perceive stress. Active coping strategies

enable these consumers to effectively regulate their spending behavior. Hence, when high SCC individuals are under financial constraints, they have lower discretionary spending tendency when they elaborate (vs. do not elaborate) on potential outcomes of their behavior. In contrast, low SCC individuals' intentions to spend on discretionary items do not vary as a function of EPO because they adopt passive coping strategies (e.g., denial) under stress.

Second, we propose that the duration of the stressing situation influences the effect of SCC on discretionary spending under financial constraints. Duration of the stressing situation (e.g., financial constraint) influences creation of stress reaction (Cohen et al. 1995). When individuals experience the stressing situation for a long time, it is likely that a stress reaction will occur. When high (vs. low) SCC individuals evaluate their resources, they are able to appraise their own capacity to deal with stressful situations (Smith et al. 1996). Hence, for stressful situations that last for a long (vs. short) time, high SCC individuals have lower discretionary spending tendency. However, low SCC individuals have higher discretionary spending tendency regardless of the duration of the stressful situation.

Research shows that when low self-certainty individuals doubt their uncertainty, they are less likely to feel uncertain about themselves (Wichman et al. 2010). Hence, when low SCC individuals feel lower levels of uncertainty about themselves, it is likely that a stress reaction will not occur. We propose that when low SCC individuals doubt uncertainty about their self-concepts, they have lower levels of discretionary spending tendency. We also propose that doubting SCC will not show similar effects for high SCC individuals. We test these hypotheses in a series of four studies.

180 women and 82 men participated in the computer based e-panel. All participants had at least three months of revolving credit card debt.

SCC manipulation was adapted from Stapel and Tesser (2001). Moreover, the EPO task was adapted from Nenkov et al. (2008). Participants rated the extent to which they are willing to make the following purchases: "a bag that they can use with every combination of their clothes which is on 50% sale." Participants then completed a fifteen item coping scale adapted from Duhachek (2005) as a process measure.

An ANOVA on discretionary spending tendency revealed significant EPO by SCC interaction ($F(1,186) = 11.26, p < 0.005$). For low SCC individuals, elaboration on potential outcomes did not lead to differential effects ($F(1,186) = 0.16, p = .69$). However, under high SCC, those who did not elaborate on potential outcomes expressed higher discretionary spending tendency than those who elaborated on potential outcomes ($F(1,186) = 28.03, p < 0.001$).

64 women and 36 men participated in the computer based national US- based e-panel. Our sample also included participants with no revolving credit card debt. Participants assumed that they have mortgage and health care bills to pay in addition to their three months of revolving credit card debt.

The procedures used to manipulate SCC and EPO were similar to the procedures used in experiment 2. Similar coping scale was used as in study 1.

We developed a composite measure of discretionary spending using three product categories (shoe, bag, and sweater) and the scale had a good composite reliability ($\alpha = .88$).

An ANOVA on discretionary spending tendency revealed a significant EPO by SCC interaction ($F(1, 96) = 9.16, p < 0.005$). Under low SCC, discretionary spending did not vary as a function of elaboration on potential outcomes (4.03 vs. 4.17; $F(1, 96) = 0.13, p = .72$). However, under high SCC, elaboration on potential outcomes led to significant differences (2.21 vs. 4.03; $F(1, 96) = 21.47, p < 0.001$). Results support the coping mechanisms as mediating process.

131 males and 149 females participated in a US-based national e-panel.

SCC and EPO manipulations were identical as in previous studies.

Participants in the long (vs. short) term stressful situation condition read: "Please assume that you have mortgage bills to pay. Your spouse is sick and you will have to pay additional medical bills for 3 more years (vs. months). Moreover, you have a revolving credit card debt to pay for 3 years (vs. months)."

Participants were then asked to indicate the extent to which they are likely to purchase a bag, which is on 50% sale.

An ANOVA on discretionary spending tendency under financial constraints yielded a significant three-way interaction of SCC, stress, and EPO ($F(1, 272) = 3.97, p < .05$). Under short term stress condition, the interaction between SCC and EPO was significant ($F(1, 272) = 3.34, p < .05$). Low SCC individuals have higher discretionary spending tendency regardless of elaboration on potential outcomes (M 's = 3.97 vs 3.76). High SCC individuals have higher discretionary spending tendency when they do not elaborate on potential outcomes (M 's = 3.82 vs. 2.91). Under long term stress condition, high SCC individuals have lower discretionary spending tendency regardless of elaboration on potential outcomes (M 's = 2.06 vs 1.86). Moreover, low SCC individuals have higher discretionary spending tendency regardless of elaboration on potential outcomes (M 's = 3.53 vs 4.67).

100 adults participated in a US-based national e-panel. SCC manipulation was identical as in previous studies. After the certainty manipulation, participants complete the head movement confidence or doubt induction described as a study on motor-eye coordination. Participants follow a ball moving either vertically (nodding condition) or horizontally (shaking condition) on the computer screen with their heads for 2 minutes, at a rate of approximately 50 times per minute. This manipulation reliably affects participants' sense of confidence (Brinol and Petty 2003).

Participants were then asked to indicate the extent to which they are likely to purchase a discretionary bag, which is on 50% sale.

Findings show that low SCC individuals' discretionary spending under financial constraints is reduced when they doubt that they have low SCC. No effects were observed for high SCC individuals.

Four studies show the effect of SCC and perceived stress on discretionary spending under financial constraints. We hope that the current research will prompt future inquiry into this area.

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8.8 Individual Papers: Persuasiveness in Advertising

Room: Maple Room C

Chair: Joseph Panicalangara, University of Central Florida

Bridging the Intention-Behavior Gap: Inducing Implementation Intentions through Persuasive Appeals

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Wolfgang Stroebe, Utrecht University, the Netherlands

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Although an advertisement that succeeds in persuading a substantial proportion of the target audience to form the intention to purchase the advertised product or service would be considered highly effective, a meta analysis of meta-analyses of the relationship of intentions and behavior has shown that intentions explain only 28% of the variance in behavior (Sheeran, 2002). Fortunately, however, this proportion can be considerably increased if one succeeds in inducing an implementation intention instead. In contrast to normal intentions, which are plans to perform a given behavior at some unspecific time in the future, implementation intentions specify the time and the context in which the behavior is to be performed and thus reflect action plans that link a critical situational cue for action to a goal-directed behavior.

In a recent literature review, Gollwitzer & Sheeran (2009) argued therefore that implementation intentions are well-suited to bridge the intention-behavior gap in the field of consumer psychology. Because this suggestion makes intuitive sense, it is surprising that the implementation intention construct has seen only scant research attention in the field of consumer research (Fennis & Stroebe, 2010). This may be attributable to the fact that the only way implementation intentions have been induced in past research has been by *explicitly instructing* participants to form such an intention (Baumgartner & Pieters, 2008), which may not be appropriate in many consumer influence settings. In two studies we investigated whether it is possible to induce implementation intentions without explicit instructions and whether the effectiveness of implementation intentions can be achieved with more indirect strategies.

We propose that such a persuasion strategy should include the critical components that have been shown to result in successful, effective implementation intentions, i.e., information which links a good opportunity to act to a specific goal-directed behavior. Moreover, we argue that such a strategy will be particularly effective when it accommodates the basic psychological mechanism that drives the effectiveness of implementation intentions, i.e., the subjectively experienced ease with which critical situational cues and appropriate goal-directed responses can be accessed from memory. This may be accomplished by using a vivid, as opposed to pallid appeal.

In two studies we demonstrate that providing people with information about suitable 'if' and 'then' cues in a persuasive appeal can mimic the demonstrated effectiveness of explicitly formulated implementation intentions, and promote goal-directed consumer behavior. We hypothesize that a persuasive appeal that advertises the constituent components of effective implementation intentions can enhance accessibility of critical cues and responses and promote goal-directed consumer behavior, but only when this information is presented in a vivid manner that promotes mental simulation.

Experiment 1 (N = 34) using a 2 (condition: goal intention vs. goal intention + implementation intention) x 2 (vividness: high vs. low) between-subjects design showed that a persuasive message promoting the use of a pocket guide to facilitate the purchase of sustainable over regular products, which included ‘if’ and ‘then’ cues fostered cognitive accessibility (measured using a perceptual identification task) of critical situational cues and appropriate behavioral responses. Moreover, this effect was moderated by vividness, such that the effect of inducing implementation intentions on accessibility was most pronounced when a vivid appeal was used.

Experiment 2 (N = 88) was a field experiment using the same between-subjects design. Paralleling the earlier findings, this study showed that a persuasive strategy inducing implementation intentions was effective in increasing actual purchase rates of sustainable products over a one-week period, but again only when a vivid, as opposed to pallid, appeal was used.

Together, the present studies extended earlier findings on the effectiveness of implementation intentions and on the psychological mechanisms underlying their impact on behavior. Whereas previous research has relied on an explicit, instructive strategy to foster the formation of implementation intentions, the present research is the first to employ a more indirect, persuasive strategy in the consumer behavior domain. In the current strategy, people are not explicitly instructed to form an implementation intention, but rather are ‘seduced’ or persuaded to do so simply by advertising to them the constituent components of effective implementation intentions, i.e., the critical situational cues and the concomitant behavioral response in those situations. The results of two experiments have shown that our more indirect strategy of ‘mimicking’ the formation of implementation intentions indeed works, but only when a vivid appeal is used.

The present research adds to recent findings that mental simulation may enhance implementation intentions’ efficacy (Knäuper et al., 2009). Additionally, the present study is the first to test the moderating role of information vividness -as a specific way to affect mental imagery- on the effectiveness of implementation intentions.

In sum, the present results vastly expand the “theatres of operation” of the construct of implementation intentions to situations where explicitly instructing people to form such intentions is untenable, unrealistic, unproductive or undesirable. The consumer-sphere being a case in point, many influence settings do not lend themselves well for explicit instruction, because people are either unable or unwilling to be told what to do by an external influence agent. Beyond the present setting, other situations that may be well-suited playing grounds for a more indirect strategy might include those types of behavior which might involve socially (un)desirable components, such as hooliganism, stereotyping or political extremism.

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The Role of Goal-Recipient Compatibility on the Persuasiveness of Sustainable Marketing Messages

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This study examined the effect of self-regulation and use of underlying implicit attitude when consumers encounter messages promoting sustainable consumption. The purpose was to identify the optimal structure of a message regarding types of goals,

recipients of behavior, and underlying implicit attitude toward sustainable consumption. Two experiments were conducted. Experiment 1 revealed that consumers evaluate environment-friendly products to be more favorable when temporarily activated self-construal is compatible with associated type of benefits (for example, approaching happiness + self). Experiment 2 provided further support that implicit attitude helps to explain this increased persuasiveness of the message using goal-self construal compatibility. Across academia and in organizations, various campaigns are being carried out to promote sustainable consumption among publics. These campaigns have had limited success. One reason for the lack of success is that the concept of sustainable consumption is difficult to understand for some. This lack of understanding of what the concept means has hindered people's adoption of sustainable consumption practices. A possible answer to this challenge can be found in the literature on message framing effect. Aaker and Lee (2001) used the term *goal-compatibility effect* to describe how distinct self-view (independent or interdependent-self) is associated with discrete goals (i.e., approach, or avoidance) that results in effective communications. Higgins (2002) also argued that when messages match individuals' processing styles, the result is favorable. Persuasive messages, therefore, should be structured to match audiences' self-regulatory processing styles.

Another answer on how to communicate effectively about sustainable consumption can be seen in the literature on the construct of environmental attitude. Environmental psychologists have found that determining people's attitudes toward the environment is difficult. Studies measuring environmental attitudes have primarily used direct self-report measures (e.g. surveys). These surveys often reveal little about people's actual behavior regarding the environment (Bamberg 2003). Few people, noted Beckmann (2005), are willing to "admit disinterest or even anti-environment attitudes" (p. 281). In many of the survey findings, there is a strong social desirability element with the self-report measures that may systematically increase the mean ratings or decrease the variability of evaluations (e.g., Bruni & Schultz, 2010).

Participants were 123 undergraduate students at a university in the eastern US were invited to participate. Participants were told that a marketing campaign for an environment-friendly product was being developed and that the researchers were interested in learning how the participants perceive ideas that will be incorporated into the campaign. Target recipient of behavior was manipulated by altering the appeals following this introduction read by the participants:

Growing use of a reusable product is known to have significant consequences for the well being of *the EARTH / YOURSELF*. The following exercise is designed to help you feel how the use of a reusable product affects *this EARTH / YOURSELF*. The description page closed with, "Imagine the blank circle on the following screen is the *EARTH / YOURSELF*."

After the instruction page, the regulatory focus was manipulated through animated facial expression pictures adopted from Wong-Baker FACES Pain Rating Scale (1988). This scale includes three positive and three negative facial expressions. Each picture was sequentially presented for two seconds and the set of 6 images was repeated 5 times. Participants in the promotion-focus conditions were presented with the series of pictures starting from negative end-state (i.e., crying face) to positive end-state (i.e., smiley face), and participants in prevention-focus were presented with the pictures in the reversed order.

Lastly, all participants were then asked to rate on 7-point scales the extent to which a reusable product was negative-positive, unfavorable-favorable, and bad-good (1 = bad, 7 = good).

To test the proposed compatibility effect by Aaker, Lee, & Gardner (1998), an attitude index was created by averaging the three attitude items ($\alpha = .95$). The results of a 2 (regulatory focus prime) x 2 (recipient of the behavior) between-subjects ANOVA revealed a significant main effect of regulatory focus prime ($F(1, 123) = 4.34, p < .05$). Higher scores on attitude index were found in

promotion-primed participants relative to prevention-primed. This main effect was qualified by the predicted 2-way interaction ($F(1, 123) = 5.50, p < .05$). Planned contrasts showed that promotion-primed participants had more favorable attitude when benefit recipient was the self than the planet ($t(57) = 1.65, p < .05$). In contrast, participants given the prevention-prime had more favorable attitude toward reusable product when benefit recipient was the planet than the self ($t(63) = 1.71, p < .05$). No other effects were significant. The results of experiment 1 provide partial support for the hypothesis that promotion-focused and prevention-focused self-regulatory states are differentially effective depending on targeted recipient. However, participants in universal benefit condition did not differ ratings by the primed regulatory focus ($p > .9$). Experiment 2 further explored this issue by employing indirect measure.

413 undergraduate and MBA students in a eastern private university in the US participated. Stimuli and procedure of were identical to experiment 1 except following: We used a 15-item attitude index including cognitive and affective measures of attitude construct (Crites, Fabrigar, & Petty, 1994), and measured implicit attitude toward reusable product using a modified version of implicit association test (Greenwald et al., 1998) later in the unrelated experimental session. Critical blocks of IAT required rapid categorization between a concept (i.e., reusable vs. disposable product picture) and an attribute (i.e., positive vs. negative word). IAT scores were computed by using the new D-score algorithm for implicit attitude (Greenwald, Nosek, & Banaji, 2003). Median split (median = .98, range = -.91 ~ 1.165, sd = .44) served as the index of high- versus low-implicit attitude toward a reusable product. The results of 2 (regulatory focus) x 2 (recipient of behavior) x 2 (implicit attitude) ANOVA on the attitude index ($\alpha = .98$) revealed a main effect of implicit attitude, $F(1, 412) = 9.67, p < .01$: the participants with higher IAT score ($M_{hi\ iat} = 5.49$) rated reusable product to be more favorable than the participants with lower IAT score ($M_{low\ iat} = 5.10$). More central to our hypothesis, predicted 3-way interaction was significant ($F(1, 412) = 6.64, p < .01$): goal-recipient compatibility effect was only significant among low-IAT participants ($F(1, 205) = 8.87, p < .01$). In particular, low-IAT participants in promotion-prime condition evaluated reusable product to be more favorable when the target recipient was self than planet ($t(106) = 1.99, p < .05$). Conversely, low-IAT participants in prevention-prime condition evaluated reusable product to be more favorable when the target recipient was planet than self ($t(96) = 2.23, p < .01$). However, high-IAT participants did not show such effect ($p > .6$). These participants with high IAT score only showed significant main effect of regulatory focus priming ($F(1, 203) = 6.31, p < .01$).

The findings in experiment 2 replicated the prior experiment and refine the notion of goal-compatibility effect on sustainable consumption. Noticeably, participants who are slower and less accurate in rapid discrimination task only show goal-recipient compatibility effect; this group of participants evaluated a reusable product to be more favorable when temporarily activated self-construal matches the associated type of benefit.

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Consumers' Social Reference Point and Persuasiveness of Charity Advertising

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Consumer advertising in general and charity advertising in specific often varies on two fundamental dimensions that practitioners often weigh but researchers rarely study: the advertising's social reference point (self vs. others), and the advertising's behavioral consequences (benefits vs. costs). Basic psychological research indicates that the self and others are the two main social reference points around which consumers organize their social cognitions (Karniol 2003). Situational events and stimuli such as primes in advertising can invoke a self or other reference point (Burnkrant and Unnava 1995).

Substantial research indicates that the social reference points of self and others, whether temporarily primed or chronically accessible, substantially affect many types of cognitions. For example, consumers rate the likelihood of positive events as higher for the self versus others, and the likelihood of negative events as higher for others versus the self (Weinstein 1980). Further, when consumers judge themselves, thoughts about their own strengths and competencies loom larger; whereas when consumers judge others, thoughts about others' weaknesses and incompetencies loom larger (Kruger 1999).

In line with this stream of research showing cognitive discrepancies between self and other social reference points, we reason that consumers' social reference points may affect the mental accessibility of cognitions about behavioral consequences: benefits versus costs. Specifically, we hypothesize (H1) that when consumers operate with a self reference point, benefit-related behavioral consequences (e.g., wealth, success, opportunities) should be highly accessible, in part because these relate to the self's highly accessible strengths and internal goal states. In contrast, when consumers operate with an other reference point, cost-related behavioral consequences (e.g., poverty, failure, threats) should be highly salient, in part because others' weaknesses and negative events are highly accessible while others' internal goal states are not.

Furthermore, we posit (H2) that advertising with different social reference points should be able to alter consumers' own reference points, at least temporarily, through priming. This, in turn, should alter consumers' sensitivity to benefit versus cost information in the advertising, thereby influencing persuasion. Specifically, we posit that when advertising's social reference point is the self, benefit (vs. cost) behavioral consequences will be more cognitively accessible and favorably evaluated, eventually enhancing persuasion; when advertising's social reference point is others, cost (vs. benefit) behavioral consequences will be more cognitively accessible and favorably evaluated, eventually enhancing persuasion.

At a glance, this hypothesis might look similar to regulatory focus findings (Aaker and Lee 2001). However, social reference point is fundamentally different from both self-construal and regulatory focus standpoint in that consumers who operate with an other-focused construal or regulatory motive are dependent on others and try to determine what others want from them, whereas consumers who operate with an other-focused reference point are empathic toward others and try to envision what others want and need for themselves. Our research deals instead with consumers who are empathetically or altruistically concerned about others' needs and wants. Therefore, we show in our studies that the persuasion effects of social reference point are empirically independent of the influence of consumer regulatory focus.

Experiment 1 used a 2 (primed social reference point: self vs. others) x 2 (thought type: benefits vs. costs) mixed design with repeated measures to examine how priming self versus others as a social reference point affects the mental accessibility of benefits versus costs. Seventy-nine undergraduates participated in the study. Supporting our H1, participants with a self reference point listed more benefit than cost thoughts; while participants with an other reference point listed more cost than benefit thoughts.

Experiment 2 used a 2 (advertising's social reference point: self vs. others) x 2 (advertising's behavioral consequences: benefits vs. costs) between-subjects factorial design. These two factors were manipulated via ads, creating four ad conditions. Undergraduates participated in the study for extra credits and were randomly assigned to one of the four experiment conditions. Supporting our H2, participants' likelihood of engaging in the promoted charitable activity was increased by advertising highlighting a self reference point and benefits (vs. costs), or an other reference point and costs (vs. benefits). We found that these effects were independent of consumer regulatory focus.

In summary, we study the influence of advertising's social reference point. We adopt a self-other conceptualization that is novel to consumer research and theoretically and substantively important: consumers' empathic concern for others' wellbeing, rather than consumers' concern about complying with other's standards as discussed in regulatory focus theory and most self-other theories. We demonstrate cognition and persuasion effects that have not been shown before.

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Boundary Conditions for Copy Complexity Enhancement Effects

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Five experiments investigated copy complexity, length, involvement, medium, task attention, and reading level on persuasion. Experiments 1 and 2 investigated involvement, complexity, and length. Experiment 3 investigated involvement, complexity, and medium. Experiments 4 and 5 investigated reading level and task attention as boundary conditions.

Experiment 1 involved a 2 (simple/moderately complex copy) X 2 (short/long) manipulation of direct marketing copy. Complexity should impact persuasiveness of the offer but length should not (although this is a null prediction, it is important to demonstrate that complexity, isolated from length, exerts effects on persuasion). Motivation should also exert a main effect on order intentions (high involvement participants will have greater intentions than low involvement participants). Motivation should also moderate the effect of complexity. An interaction between complexity and involvement is expected, such that intentions will be greatest for those high in involvement exposed to complex versions.

Independent variables included complexity, involvement, and length. Involvement was a self-reported measure on two nine-point scales, with higher numbers indicating greater involvement. The two scales correlated significantly (.63; $p = .000$), so were averaged, and dichotomized ($M = 5.46$). The dependent variable was order intention on a nine-point scale (higher numbers indicated greater order intention).

Participants were 85 college students who provided informed consent to participate. Participants participated in groups of 12, seated at cubicles in a laboratory. Participants read the direct mail offer, then received the measurement booklet. Upon completion, the participants were debriefed and were free to leave.

A 2 (simple/moderate copy) X 2 (short/long) X 2 (low-/high-involvement) ANOVA was conducted. Complexity contributed to order intentions, as expected. Those who received the complex versions had higher intentions to order ($M = 2.98$) than those who received the simple versions ($M = 2.05$; $F(1,83) = 3.99$; $p < .05$). There was also a main effect for involvement, as expected, such that those who reported high levels of involvement were more likely to order than those low in involvement (2.96 vs. 2.04; $F(1,83) = 3.78$; $p < .05$). As expected, length did not contribute to order intentions.

Involvement moderated the impact of complexity on order intentions, as expected. High involvement participants who received the complex offer had higher order intentions than all other participants ($F(1,81) = 9.24$; $p < .005$). Thus, complexity had a positive impact on those high in involvement. The expected results were obtained, but order intentions were quite low.

Given this negative response, Experiment 2 used a more interesting item (otherwise, the replication was identical). Participants were 103 college students participating for extra credit.

Experiment 2 replicated Experiment 1 -- complexity exerted a main effect on intentions (moderate = 5.00 vs. simple = 3.77; $F(1,85) = 6.23$; $p < .05$). Involvement also exerted a main effect (high = 5.57 vs. low = 3.36; $F(1,85) = 23.48$; $p < .001$). Length had no effect. The pattern of results for the interaction between involvement and complexity was as expected, and was significant ($p < .05$). Highly involved participants exposed to moderate copy had higher intentions to order than all other participants.

Experiment 3 involved a 3 (simple/moderate/complex copy) X 2 (print/broadcast medium type) manipulation for the same item from Experiment 2. The addition of radio was intended to test the hypothesis that the persuasiveness of copy in commercials will decrease as copy gets beyond moderate complexity. An interaction between complexity, medium, and involvement (identical to procedures in Experiments 1 and 2) was expected.

Participants were 241 college students participating for credit in the same laboratory. Participants were randomly assigned to a cubicle with a computer monitor, which showed a randomly pre-selected condition. Participants in the print conditions read the offer on the screen and responded to the questionnaire. Participants in the radio conditions listened to the commercial on headsets and responded to the questionnaire. Six print and six radio versions were prepared, adding a very complex version. Order intentions were measured on a five-point scale.

There was no main effect for complexity but there was one for involvement (high = 2.91 vs. low = 2.16; $F(1,239) = 6.42$; $p < .05$). The interaction between medium, complexity, and involvement was also marginally significant ($F(2,239) = 2.37$; $p < .10$). For those high in involvement exposed to the print version, complexity enhanced persuasion (even at the highest level of complexity), but for those high in involvement exposed to the radio version, complexity had a deleterious effect on persuasion.

Experiment 4 involved a 3 (simple/moderate/complex copy) X 2 (item offered) within-subject design, measured reading level, and included an instructional manipulation check. An interaction between complexity, reading level, and involvement was expected. Participants were 93 college students participating for credit in the same laboratory. Participants were randomly assigned to a cubicle with a computer monitor, which showed a randomly pre-selected condition from Experiment 3 (print only). Order intentions were measured on a five-point scale. Participants engaged in a non-timed distraction task between presentation of the two offers.

There was no main effect for complexity, reading level, or involvement for the first offer. All but two participants passed the IMC. The interaction between complexity, reading level, and involvement was not significant ($p > .10$). The results for the second offer were difficult to interpret. Given the distraction task was non-timed, the low number of errors on the IMC, and the low cell size, Experiment 5 was conducted to replicate the basic design with a timed distraction task and a higher sample size.

Experiment 5 replicated Experiment 4, but with a timed distraction task. An interaction between complexity, reading level, and involvement was expected. Participants were 117 college students participating for credit in the same laboratory.

There were no main effects for complexity or reading level, but there was one for involvement, such that those who reported high levels of involvement had greater order intentions than those at low levels of involvement (3.19 vs. 2.60; $F(1,116) = 5.64$; $p < .05$). Again, errors on the IMC were quite low. The interaction between reading level, complexity, and involvement was not significant

($p > .10$). It would appear that, at least for college student participants, neither reading level nor task attention serve as boundary conditions.

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JCP Area Editor's Meeting

4:00pm - 4:50pm

Cedar Room

JCP Editorial Board Meeting

5:00pm - 6:00pm

Grand Ballroom B & C

American Psychological Association Conference

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Purposive Communicating for Marketing: What? And To Whom?

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People (and organizations) are engaged in a continual and complicated process of consuming to best serve the conditions they experience. In that context, we consider management's responsibility to invest its resources, in this case, marketing communications resources, for profitable return.

A distinctive feature of marketing communications is its intrinsically purposive nature beyond mere communicating. The definition of marketing itself specifies a purpose for marketing communications, i.e., satisfy individual and organizational goals, specifically, "delivering value to customers" and "benefiting the organization" (AMA 2005). Marketers assess the success or failure of their communications in relation to the extent to which individual and managerial objectives are served: Has it been a good use of management's resources? In this context, we demonstrate with relevant findings two respects in which the literature of marketing fails to reflect both business practice and appropriate concern to acquaint management with the actual circumstances of people for whom the firm deploys resources to (1) make goods/services and (2) communicate their availability to targets.

Achieving communication in itself, e.g., transferring information from one individual to another, is not a criterion of success for marketing communications. To achieve "satisfying exchanges," "deliver value," "benefit the organization," marketing communications must have regard to what is communicated to whom. Unpacking what and to whom, we see (1) only that kind of information, i.e., that which offers something they value, (2) communicated to individuals likely to engage in behavior relevant to management's venture (i.e., targeted prospects), may lead to a satisfactory return on management's investment (ROI) and thus success for marketing communications. For a venture in flea collars, marketing communication must have regard to deliver information about valued pest control attributes (e.g., noninjurious/nonirritating flea collar) to individuals who take care of pets (e.g., owners of allergy-prone cats). Marketers may well use mass media of communication but their goal is not mass communicating. Their goal is highly targeted communications—placing the right message in the memory of the right individuals to be available at the right time to try to effect purchase of the right offering at the right price to yield a satisfactory ROI.

Generally overlooked in academic treatments of marketing (especially, for example, in the laying down of fundamentals such as authors aspire to in Principles textbooks), marketing practice has a time-honored two step process for addressing What? and To whom? In this paper we provide data germane to such a discontinuity between academic and practitioner research on the issue of ROI-relevance as characteristic of marketing communications. In Study 1, we report findings from research conducted by a telecommunications company, in which ad awareness data are analyzed by criteria relevant to distinguishing outcomes between prospects and nonprospects. We show differential ad awareness favoring prospects. Study 1, then, casts light on marketing's first step in selecting whom to communicate with, i.e., which individuals from a given population. Study 2 takes the story to the next stage, and considers how marketers both approach the What? of marketing communications, and refine the Who? yet farther. In Study 2, conducted by a job recruitment service, we report research into what workers look for in a company they would consider for future employment. Management defined prospects as professionals actively considering changing jobs. The objective here was to explore

what attributes of a future job are of interest to such individuals with a view to helping human resources management decide the what of its promotional message, as well as further refine to whom, i.e., which, among prospects with diverse wants, it should target with promotional messages. Given the well known fact of heterogeneous wants within a market, it is to be expected that job change prospects are diverse with regard to what they consider to be critical desiderata in a new job. In turn, management of a recruiting firm may be differentially able to appeal to such diverse wants, and seek guidance on which prospects to regard as targets for a message that promotes attributes in which the firm excels.

The results showed that prospects for job change generally expressed relatively high concern for four of six concern factors while nonprospects did not express high concern for any; moreover, individuals of moderate predisposition to change jobs expressed relatively intermediate interest in the six factors. Such findings offer further confirmation of Step One, i.e., distinguishing prospects and nonprospects. Subsequent analysis found that within prospects for a new job (those predisposed to move), heterogeneous market segments could be identified and these can serve as the basis for effective variation in communicating the firm's offerings. Such findings further support the two step process of marketing practice, i.e., defining the firm's market (prospects) followed by exploring the heterogeneous variation in wants within the market.

Academic marketing and marketing communication studies typically regard population members as interchangeable units relative to potential marketing variables. Such a practice overlooks the complexity, diversity, and richness of the individual lives that provide marketers' opportunity for ROI. In contrast, the everyday procedures of commercial marketing research practice underscore the fact that reactions to the attributes of goods/services have validity only when they are obtained from people who are disposed to spend their resources in the productive domain that is at issue in the focal marketing venture. When consumer researchers recognize the need to restrict data to prospects, or at least keep nonprospect data separate, they can begin to bring to bear their best efforts to describe the everyday world of consumers as a prerequisite for creating and communicating valued attributes of goods/services. Moreover, if academic consumer research is to have a shot at realizing its often expressed aspiration to "benefit consumers," it must start by a realistic appreciation of actual tasks and interests that comprise the lives of real world individuals, upstream from existing goods and services. Similar considerations apply in the domain of public policy research, where consumer researchers may raise (possibly controversial) issues about the ability of respondents to provide input to policy decisions that are beyond the range of their usual activity and experience.

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Advertising and the Cultural Meaning of KUSO

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To appeal to young target audience, marketers often place brand messages in a popular cultural context. KUSO, originated from Japan, has been popular among young generation in Taiwan. The definition of KUSO is not clear, but it is said to be an expression of serious attitude towards trivial things in everyday life. It has been widely accepted and used as communication tool among the young in social interaction. KUSO appears to be one way to promote brand to young consumers by presenting a cultural context with which they can relate and understand. The purpose of this study is to explore how consumers interpret KUSO, a cultural object, and its application to advertising.

Interpretation creates meaning. Klein and Kernan (1991) define meaning as a perception, arising from the interaction of individual, object, and context. Meaning, defined as such, is symbolic, subjective and psychological (Friedmann 1986; Mick 1992). Klein and Kernan (1991) suggest that meaning of an object consists of two dimensions, that is, an interpretation of object attributes and of its performance. McCracken (1986) asserts meaning moving from cultural entity to objects, from object to consumer. An interpretation of object is associated with aspects of the cultural milieu. Consumers acquire the cultural meaning of object through consumption.

Based on the assertions, the study begins with the proposition of meaning construction framework of cultural object. The framework illustrates meaning construction as an interpretive process with which cultural representation of an object is linked to object attribute and performance, and to the evaluative aspect of consumption experience.

To explore the cultural meaning of KUSO as consumers interpret it and its application to advertising, word association was used as a method for data collecting in the study. Word association has been used in both advertising and marketing context to understand psychological meaning of consumption objects (e.g., Kleine and Kernan 1988; Phillips 1996). This technique is useful in tapping associations that are difficult to express since it requires no thought rationalization from study participants (Szalay and Deese 1978). As a result, it offers a good way to gain insight and rich information regarding the meaning of cultural object, such as KUSO

Participants were recruited from a private university located in Taipei, Taiwan. Total of 118 undergraduate students attended this study with extra course credit in return for their participation. The use of student sample is congruent with the purpose of this study, in that it represents the younger, non-traditional generation that is more receptive to popular cultural trends. In the study, student participants were asked to respond to the objects "KUSO" and "KUSO Advertising" during the word association task. The study took place during regular class time. Two graduate research assistants were responsible of holding the sessions and assisting data collection in progression.

Each participant received a booklet which contained a cover page, an instruction page, and two word association sheets (all in Chinese). The two association sheets were each listed "KUSO," "KUSO Advertising" at the top of the sheet. The instructions were read aloud and participants' questions regarding the study were answered. For the word association task, participants were instructed to write one-word or short phrase descriptions (in Chinese) of whatever come to mind when they thought about the cultural object listed at the top. For each object, they had one minute to accomplish the word association task.

Total of 750 word associations regarding KUSO were collected from the 118 student participants, and total of 611 word associations regarding KUSO advertising collected. For each task object, participants managed to generate one to 12 word associations. The collected data were then gone under two stages of analysis. First, the word associations generated by participants were grouped into categories or themes that emerged from the data (Strauss and Corbin 1990). The themes emerged from the data approximately corresponded to the a priori proposed meaning construction of cultural object. The primary themes included cultural representation of the object, cultural object attribute, performance, and evaluation of the cultural object. At the second stage, the response word associations were re-classified into the categories prior proposed to validate the themes. Three coders, including two graduate students as well as the researcher, were involved in the re-classification task. The initial inter-coder agreement was not satisfactory; however, disagreements were resolved through discussion and repeated re-examination of word association responses. The main themes and sub-categories produced in response to each cultural object were illustrated by using the meaning construction framework.

The dominant theme that emerged from the data is Performance (frequency of mentioned= 270, 36% out of 750 total word association responses). Performance of KUSO involves the intention of performer and the consequence resulted in. Performance related word

association responses suggest that the intention of KUSO is self-glamorization in a satire style with which travesty, absurdity is often used. The resulting consequence is ritualization of such behavior as a way of self expression. The next significant theme is Attribute (167, 22.27%). Attribute of KUSO is made up with two sub-categories. One concerns objects used to signify KUSO, which include culture of origin and sub-culture that shares the meaning. Among attribute related word associations, Japan, the young and internet generation were mentioned quite often. It suggests that KUSO is associated with its creators and users. The other category is the symbol innovated as a result of KUSO practice. Interestingly, word associations related to style of performance were listed by participants as the symbol of KUSO. When confronted with the word "KUSO," it appears that individuals think of parody, burlesque.

Meaning constructed around performance and attribute further forms a cultural representation theme of KUSO, that is, anti-culture in ideology and liberation in cultural imagery. Evaluation of KUSO reflects consumption experience that is purely cultural. Taste in aesthetic appreciation term was mentioned the most regarding consumption experience. It seems to suggest that KUSO consumption is associated with aesthetic experience, as a matter of taste.

KUSO Advertising. Two dominant themes that emerge from the data is Performance and Attribute (frequency of mentioned= 260, 230, 42.55% and 37.64% out of 611 total word association responses, respectively). Word association responses suggest that performance of KUSO advertising involves an intention to persuade and its consequence obtaining resonance. To correspond with performance, attribute of KUSO advertising is signified by entertainment content of different forms, including adverts, entertainment programs, music, etc. The signifiers also include country origins of such entertainment content, and social network sites which distribute the content. Often mentioned country origins are Japan, Thailand, and USA, and social network sites Youtube and some microblogs. Characters developed from the content become symbols of KUSO advertising.

Finally, cultural representation related word associations show that when viewing KUSO advertising, individuals think of young people as the target of persuasive communication. Imagery of subversion is encouraged in viewers. Evaluation of KUSO advertising nonetheless concerns one's appreciation of creativity style in advertising execution. These results also suggest that participants have rich persuasive knowledge, which enables them to interpret and apply cultural meaning of KUSO in the context of advertising (Friestad and Wright 1994). When viewing KUSO advertising, individuals turn their focus on the effects that KUSO style may generate.

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Construct of Consumer-Based Perceived Product Innovativeness

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Growing market competition in consumer goods has led to increased concerns regarding the competitive advantage conferred to firms offering innovative products. While insights from consumers are often used as starting point in the design process, what is thought to be innovative by a team of engineers and designers may not be perceived in the same way by target market consumers. Marketers would benefit by knowing more about the specific dimensions underlying consumer perceptions of innovative products. Personal innovativeness as a personality trait has been addressed in the literature (Cotte and Wood, 2004; Manning et al., 1995; Midgley, 1977; Midgley and Dowling, 1978). The goal of this paper, however, is to clarify the construct of consumer-based perceived product innovativeness. Perceived product innovativeness from the firm's and customer's perspective has been addressed in previous research (Garcia and Calantone, 2002; Danneels and Kleinschmidt, 2001) but definitive construct dimensions have not been identified and

systematically tested (cf. Calantone et al., 2006). In reviews of the literature, Danneels and Kleinschmidt (2001) as well as Garcia and Calantone (2002) identified many dimensions that may underlie perceived innovativeness. They noted that specific dimensions have not been employed consistently across studies. Our ultimate goal is to develop a standardized measure that can be employed across future studies so results of studies can be more comparable.

In their meta-analysis on antecedents of product performance, Henard and Szymanski (2001) specified product characteristics as a predictor of product innovativeness. According to the authors, product innovativeness can be defined as perceived newness, originality, uniqueness and radicalness of the product. Sethi et al. (2001) used two factors to define product innovativeness: a) novelty broken down into novel and original, and b) appropriateness broken down into useful and appropriate. Product innovativeness has also been confounded with product uniqueness as defined by customers (Daneels and Kleinschmidt, 2001; Troy et al., 2000; Ali et al., 1995). Uniqueness has also been viewed as a distinct measure of innovativeness in defining product advantage (Henard and Szymanski, 2001; Langerak et al., 2004). Conversely, product newness and uniqueness have also been used as sub-measures of product innovativeness (Salavou, 2005).

Positive product attitudes have been associated with new products perceived to be innovative (i.e., novel and useful to consumers; Troy and Davidow, 1998). It also appears that when the innovativeness measure includes a “meaningfulness” dimension it yields a stronger relationship with product success (Szymanski et al., 2007). In addition to novelty dimension, Fang (2008) found dimensions like “challenging existing ideas,” “creative and interesting,” underlying perceived product innovativeness. In one of the original studies identifying factors underlying perceptions of new product launches, Cooper (1979) identified product uniqueness superiority further broken down into newness, uniqueness, and superiority to meet customer’s needs, cost reduction and higher quality.

In sum, inconsistencies exist in the literature in terms of how to define the construct and dimensions underlying product innovativeness as perceived by consumers. The ultimate is our research to provide a tool that will allow more consistency across studies. In addition to using concepts identified in the reviews of the literature, in-depth interviews were conducted in order to gather the widest possible range of adjectives related to perceived product innovativeness from the consumer point of view. Inspired by a methodology used by Li et al. (2008), 34 student interviewers were asked to conduct several in-depth interviews each. They were required to recruit campus across ages, genders and education among students and non-students of over twenty years of age. Based on a methodology used by Krishnan (1996) for generating brand associations, 340 participants were asked to provide top-of-mind thoughts using open-ended questioning. The initial set of statements / items was screened by faculty judges, independent of the study, to group the ones with similar meanings but also to eliminate redundant and non relevant attributes in order to reduce the pool of adjectives to a manageable size (Bearden et al., 2001). As a result, a final list of 68 attributes was compiled.

A questionnaire was developed based on a 7 point bipolar Likert scale where the resulting set of 68 items was submitted to principal component analysis. The decision to use principal component analysis was driven by the fact that the theory behind consumer-based perceived product innovativeness has not been clearly conceptualized and sufficiently detailed regarding the relations between indicators and the construct (Gerbing and Anderson, 1988). A survey was conducted and the questionnaires administered to a sample of 218 adults around a campus community of an American university. Participants were selected based on a wide range of ages, gender and education. After a series of iterations, an optimal 9-factor solution accounting for 58.3% of the variance explained appeared to be meaningful and interpretable. The uncovered factors are in order: 1) usefulness, 2) cutting edge, 3) desirability, 4) sophistication, 5) newness, 6) impactfulness, 7) uniqueness, 8) worthiness and, 9) unusual.

In conclusion, this study confirmed underlying dimensions of perceived product innovativeness found in past research and, importantly, also uncovered distinct dimensions that have not been addressed in previous research. Results of our research confirm that consumer-based perceived product innovativeness is a multi-dimensional construct. The conclusion of our study proposes that a new scale be developed and tested across different types of product categories. This scale would then be used in future research on perceptions of innovative products.

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Emotive Reactions and Cognitive Reasons for Preferring Packaging Designs

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Consumer psychologists are continuously confronted by consumers' intent or behaviour being either thought or feeling driven. Emotions have become an important research topic in the behavioural sciences, not least in packaging design research. In the 1990s Damásio expressed the view that emotion not only causes decision making but also determines the outcome of the decision-making process. Damasio uses the concept of a somatic marker to indicate that when faced with a decision we only use one criterion namely 'How will I feel if I did whatever I need to decide on'. Although we do not know how we will feel in future, we do rely on memory to anticipate the associated feeling. This somatic (or bodily) state 'marks' an image that forces attention on the outcome to which a given action may lead. This insight does not negate the use of reasoning, but suggests that reasoning occurs only after the associated somatic marker drastically reduces the alternatives. Somatic markers are therefore a special instance of feelings generated from emotions associated and connected, by learning, to predicted future outcomes. This theory suggests that our instinctive emotional responses shape our rational behavior and that rational behaviour cannot occur without emotional responses that direct our attention and behaviour (Damasio, 1994).

Packaging design needs to capture a broad spectrum of critical packaging aspects if it is to attract the attention of the consumer. One element that these steps have not included is the emotional value a consumer attaches to packaging and how that may assist in stimulating consumer interest and understanding consumer purchasing decisions. This may be especially important where indulgent products are concerned such as chocolates. Leung and Kleiner (2004) are of the opinion that consumers want indulgent products that provide small personal pleasures and rewards. Packaging thus has a pertinent role to play in communicating the qualities of the product and creating the right impression for the consumer. This research aims to determine this role.

In conceptualizing this study it is suggested that an emotional reaction needs to be established before further cognitive processing of a packaging stimulus can take place. Emotions can therefore be considered as a gatekeeper for further processing. Previous research has shown that emotional reactions measured by means of visual self report measures exhibit direct effects on behavior such as purchase intention (Morris, Woo, Geason & Kim, 2002). Verbal self-report is therefore well suited to the measurement of higher-order emotions related to packaging.

The research methodology involved a convenience sample of 158 students at Unisa. Groups of approximately 10 students responded to two pack designs in an on-line environment where after a focus group discussion was held to elicit the constructs used in differentiating between the pack designs. These constructs were included in a repertory grid and a hierarchical value mapping exercise to determine the differentiating constructs and the personal values driving associated with a particular emotive reaction to a pack design.

The Product Emotion Measurement Tool (PrEmo) developed by Desmet (2002) was utilized in the current research. Instead of static figures, PrEmo includes 14 animated puppets. Each animation represents a specific emotion. In total, PrEmo comprises seven positive emotions (desire, pleasant surprise, inspiration, amusement, admiration, satisfaction, and fascination) and seven negative emotions (indignation, contempt, disgust, unpleasant surprise, dissatisfaction, disappointment, and boredom). A stimulus is shown, and respondents have to indicate how strongly the target stimulus makes them experience each of the 14 emotions represented by the puppets.

PrEmo was initially developed and applied to measure emotional responses to design (Desmet, 2002; Desmet, Hekkert & Jacobs, 2000), but Ketelaar and Van Gisbergen (2004) applied PrEmo to measure emotions evoked by advertisements. They concluded that PrEmo is a user-friendly, valid, and cheap instrument to measure emotional reactions to advertising.

The derived responses were captured in a data matrix format which was subjected to both descriptive and inferential (correspondence analysis and laddermap) statistical analyses. The output provided a graphical display of the relationship between emotive reactions to packaging designs as well as expressed preference levels between packaging designs.

The following basic assumptions underlying consumer decision making provide justification for the research:

- In a highly competitive marketing environment, lists of features and benefits alone are no longer enough to differentiate brands, especially when only a few seconds are available to make an impression in such a noisy environment. If an emotional connection can be made during this fleeting encounter, rational arguments can be made later.
- Marketing communication is an important vehicle for getting the message and the product in front of consumers in order to build brand awareness. But communication alone can't create something that is not really there. It can't deliver the actual experience, or build a relationship or create a lasting emotional connection. It can only set the stage. No matter how good the marketing communication is, brands that don't deliver on their promises struggle to earn the commitment that comes from consistently positive experiences with the products or services. When emotion and experience work hand in hand, trust builds, creating the positive emotional responses that create committed brand relationships.
- It is recognized that the differential impact of specific emotions occurs via the strong association between emotion and motivation. Emotions arise when events or outcomes are relevant for one's concerns or preferences and they prioritize behavior that acts in response of these concerns. As such, emotions can be understood as programs for intuitive decision-making, imposing upon the decision maker inclinations for action that, in a given situation, most adequately serve current strivings. Investigating these dynamics should further enhance our understanding of both decision processes and the dynamics of emotional experiences. Put differently, when we realize that feeling is here for the sake of our doing, we also realize that progress in studying the intuitive decision maker cannot be made without scrutinizing emotion.
- Packaging design is one of the most powerful tools for communicating brand emotions. It's the glue that connects logic and reason with imagination and feelings. Good design that resonates with consumers expresses the essence of a brand in ways that speak directly to the emotions. The findings reflect the emotive profiles of the pack designs tested and reports on the packaging attributes consequences and values that are associated with a particular emotive profile.

Role of TV Program Commitment in the Digital Era

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One of the most important trends on the Internet is the rapid growth of Web 2.0. Web 2.0, as the second phase of a wide range of Web-based services, has provided socially networked, constantly in-touch, and virtual-world-driven consumers with an array of collaborative tools to interact with brands and peer consumers. For example, TV networks have embarked on the “participatory Web” and expanded their online territory outside their official Websites to alternative media as a movement of brand extension (Ha & Chan-Olmsted, 2001) to build their relationships with current and future audience. Take NBC’s hit series, *Heroes*, for example: the TV program has incorporated an official Website, a Facebook page, Twitter, a virtual world (i.e., Habbo), an online game (i.e., *Heroes Evolutions*), and other interactive media to promote the program, as well as to build relationships with viewers.

Consumers’ relationships with commercial brands have been studied as similar to those of human relationships (Fournier, 1998). One vital construct in the context of consumer-brand relationship is commitment. In consumer psychology literature, brand commitment represents the degree to which a consumer experiences a long-term orientation and attitudinal disposition toward a brand within a product class (Chaudhuri & Holbrook, 2002). This notion applies directly to the increasingly crowded broadcast environment, where to build up TV program commitment has become a key factor for broadcasters and marketers. Analogous to the consumer-brand relationship, committed viewers are likely to pay more attention to the TV program; they also possess a higher level of involvement that drives them to remain highly interested in program-related information.

Despite the importance of TV program commitment and relationship phenomenon in the new media environment, no empirical attempt has been made yet. To shed some light on the importance of succeeding in the highly competitive and fragmented media arena, this study applies the concept of brand commitment to further define TV program commitment in the context of program-viewer relationship. The antecedents and consequences of committed viewers’ program-related cross-media consumption will be examined to explore the causal relationships among the proposed constructs. More specifically, the determinants of program commitment and committed viewers’ cross-media usage for fulfilling their program-related arousal will be explored in the current research design.

Expanding on previous literature in social psychology, consumer research and communication (i.e., consumer-brand relationship commitment, fandom, parasocial interaction, transportation, uses and gratifications), this study proposes a theoretical framework that incorporates several variables to illustrate the antecedents of viewers’ TV program commitment, their use of program-related alternative media, and the consequences of their cross-media usage. The constructs in this conceptual model are used to demonstrate the relationship between preceding factors of TV program commitment, program commitment, the use of program-related interactive media consumption, and attitude toward the TV network.

The proposed research consists of two main phase: in-depth interview and survey. The first phase of the research was completed. In the first phase, a series of in-depth interviews were conducted 1) to determine whether the proposed antecedents, derived from brand commitment and media literature, are emerged and 2) to refine the conceptual framework and identify a set of survey instruments and scales designed to tap the constructs. Upon completion of the first phase, the investigators will develop a set of survey questions and identify relevant social and psychological constructs based on the results of the first phase and the review of literature.

A total of 111 viewers, comprised of 72 females and 39 males aged 18 to 26 ($M = 21.03$), were interviewed. Participants were asked to name any TV program to which they are committed. Forty-five unique TV programs across 5 genres (comedy, drama, reality show, talk show, cooking show) were identified. Regarding the interviewees' perceptions toward the programs that they were committed to, five preceding factors of TV program commitment emerged as suggested in the literature: *satisfaction*, *investment*, *the quality of alternatives*, *parasocial relationships*, and *transportation*.

Satisfaction. The results revealed that these viewers were committed to TV programs because they felt satisfied with the engaging storyline, information offered helped them establish their own aspirations (e.g. fashion tips), they gained entertainment and social value by interacting with other viewers, the program was highly accessibility via different media devices, and more. In this sense, viewers' psychological attachments to a program tended to be stronger when the program satisfied their different needs.

Investment. Participants also reported that they invested quite an amount of time, emotional effort (e.g., feeling lost if they stopped watching), attention, and additional action (e.g., voting for the contestants on reality shows) to their beloved shows. To elaborate, these investments increased viewers' commitments and helped to lock them into their current relationships with the programs by increasing the switching and termination costs.

Alternatives. The results suggest that participants all disclosed that alternative programs in the same genre were not comparable in any way to the one they were committed to, including the plot, the characters, the entertainment, etc. Therefore, viewers believed that they were obtaining unique values from the programs they preferred; these values could not easily be provided by other shows.

Parasocial relationships. Interestingly enough, most of the interviewees expressed affective bonds with personas featured in the programs. They believed the media personalities' likeness, attractiveness, and attitude similarity were the reasons why they felt committed to the programs. They could easily relate to the characters, perceived imagined friendship, and defined their own identity through the connection with their adored characters.

Transportation. Finally, another type of media involvement, transportation, was observed as well. Participants claimed emotional, cognitive, and perceptual immersion into the narratives (e.g., when I watch it's like I am stepping into another world).

In sum, viewers who obtained greater satisfaction, devoted a higher investment, perceived less attractive alternatives, became interpersonally involved, and were more likely to be absorbed into a narrative, will form a higher level of commitment in their relationships with their favorite programs. In order to delineate the predictive roles of the five antecedents on the formation of TV program commitment, to capture viewers' motivation on a wide range of cross-media consumption, and to determine the resulting TV network branding outcomes, a survey method is proposed in approaching the research problem.

A total of 300 college students from a large southeastern university in the U.S. will participate in the study. According to the Pew Internet & American Life Project (2009), millennials (age 18-32) are most likely to use the Internet for entertainment purposes and for communicating with family and friends. Therefore, the sample will be suitable for the current research. Before testing the proposed model, we will perform a three-step measurement purification process: (1) confirmatory factor analysis for the final verification of unidimensionality (Gerbing & Anderson, 1988); (2) reliability test of the final scales; and (3) calculation of construct validity (Hair, Anderson, Tatham, & Black, 1995). The structural equation analysis will be performed to test the proposed framework. The structural equation model will be estimated with AMOS 5 by the method of maximum likelihood. To estimate the goodness-of-fit for the

proposed model, $X^2/d.f.$ ratio test, Normed Fit Index (NFI), Comparative Fit Index (CFI) and Root Mean Square Error of the Approximation (RMSEA) will be employed in the present research.

In the realm of branding in the TV industry, TV broadcasters have incorporated diverse offline (e.g., innovative and aggressive scheduling, rescheduling, and counter-programming approaches) and online (e.g., enhanced TV features in the world of Web 2.0) endeavors to maintain and facilitate existing relationships with audiences. Therefore, the proposed study is significant to the consumer psychology and TV network management fields in that it seeks to empirically test the viewer-program relationship by answering questions regarding the factors that make relationships lasting and strong. This study will extend the literature on relationship marketing by investigating important antecedents and consequences of the TV program commitment and its associations with viewer-program relationships. Also, it will provide TV broadcasters with valuable insight on their branding strategies across different interactive media landscapes.

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Receptivity-Susceptibility to Tobacco Promotion Measure Prone to Responses Biases

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A review was conducted of the Index of Receptivity to Tobacco Industry promotion (Pierce et al. 1998) using the original data that was used to develop the model. This procedure found that the research methodology for the Index appeared to introduce and magnify the effects of Extreme Response Bias and Standard Deviation Bias in a study's results. This led to a biased result that has been widely accepted by researchers and policy makers. The methodology developed by the Index of Receptivity to Tobacco Industry Promotion is also currently promoted as being the benchmark to measure the development of susceptibility to smoking in adolescents (NCI, 2006a, 2006b, 2006c, 2006d).

The Index of Receptivity to Tobacco Industry Promotion – IRTIP, published by Pierce et al. (1998) in the Journal of the American Medical Association, is a well-known and much-adopted model for predicting adolescent susceptibility to smoking initiation.

Tobacco industry promotion, especially cigarette premiums, was reported as the sole cause for increasing adolescent susceptibility to smoking. It has been cited in hundreds of research articles (Geweke & Donald, 2002) and has been successfully replicated many times (e.g. Goldberg, 2003a; Goldberg, 2003b; Sargent, Dalton, & Beach, 2000; Sargent, Dalton, Beach, et al., 2000).

The IRTIP model uses a longitudinal sampling procedure. It first identifies Non-Susceptible Never-Smokers (NSNS) by asking respondents' seven questions about their future intentions to smoke cigarettes. NSNS are the respondents who have provided responses to the extreme negative of the scale for all of the questions. During this baseline interview, information about the respondents' levels of receptivity to tobacco industry promotion and to peer and family influence for tobacco smoking was also collected. NSNS respondents were followed up three years later. It was reported that receptivity to tobacco industry promotion was positively and causally associated with the development of higher susceptibility to cigarette smoking. Exposure to peer and family influence on smoking was not found to be a significant predictor for increases in susceptibility.

The literature on susceptibility and receptivity appeared to be divided. Researchers who had replicated or closely followed the IRTIP methodology were consistently successfully in finding support for the link between tobacco promotions and increased susceptibility to

smoke cigarettes. Scientists who deviated from the IRTIP procedure or used other methods consistently reported that it was peer and family influence, and not tobacco promotions, which were positively correlated to increases in susceptibility to smoking (e.g. Albers & Biener, 2003; Beals, 1996; Bearden & Etzel, 1982). This presents the interesting question of “how” IRTIP manages to consistently find tobacco promotion as the sole effect in increasing adolescent susceptibility to tobacco uptake. A review was conducted of the sampling procedure and data collection methodology.

2068 subjects aged between 11 and 17 years were drawn from the original California Tobacco Study database that was used to develop the IRTIP model (California Department of Health Services, 2006). These adolescents had completed a telephone survey about their tobacco use habits, perceptions towards tobacco, and experience with tobacco advertising and promotion.

Using the IRTIP method, subjects were classified as being persons who had never smoked before and were not susceptible to smoking (Non-susceptible Never-Smoker – NSNS), persons who had never smoked but were susceptible to smoking (Susceptible Never-Smoker – SNS), and persons who were already Smokers. One thousand respondents each were randomly drawn for the NSNS and SNS groups. 68 persons, representing all subjects who were classified SNS were also included in the test sample. Response style comparisons were used to identify response biases in these three groups. Attrition bias was evaluated through an examination of how the influencing agents studied by IRTIP (peer-parent smokers vs. tobacco promotion) affected attrition patterns. ANOVA and Non-Hierarchical Cluster Analysis were used to compare the response profiles between the groups and to test for Extreme Response Bias.

Analysis and Logistic Regression were employed to identify Sample Attrition Bias. It was found that the results reported by Pierce et al. (1998) suffered from significant extremeresponsebias (ERB). ERB is a response-artefact that is peculiar to specific respondent types and is associated with Acquiescence and Yea-Saying bias. NSNS responses were significantly different from the other respondent groups that were tested in this review. NSNS appeared to be an outlier group.

A respondent drop-out analysis revealed that those exposed to parental and peer smoking exhibited significantly higher attrition rates. The remaining longitudinal sample had proportionately more members with exposure only to tobacco promotion, and not to peer or family smoker role models. This appears to have led to Pierce et al. (1998) finding for tobacco promotions as being the only significant predictor for increases in susceptibility to smoking. This had direct effects on the findings of the test study.

Using extreme responses as a case-control measure magnifies the effects of response style bias. This procedure results in a secondary problem of non-random subject attrition. The veracity of findings from studies that this problematic case-control procedure should be re-evaluated.

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Quantitative Approach to Implicitly Expressed Negative Emotions in Customer Survey

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The concept of negativity bias has been the focus of much research in the field of psychology (see extensive reviews by Baumeister et al. , 2001; Rozin and Royzman, 2001; Skowronski and Carlston, 1989), and one of the key aspects of negativity bias, or negativity dominance, is considered most robust and common (Rozin and Royzman, 2001). This principle states that the holistic evaluation of negative events/objects, etc is more negative than the sum of subjective assessments of the individual events/objects. Skowronski and Carlston (1989) mentioned extreme cues in addition to negative cues as the source of the no-sum phenomenon. Baumeister et al.

(2001) described the bias in the context of the positive-negative asymmetry effect where the no-sum pattern is observed for negative cues but not for positive ones. The purpose of the present study is to investigate if negativity dominance is prevalent with large-scale satisfaction surveys, in particular with customer service surveys where satisfaction is closely linked to emotionally involving experiences (Ladhari, 2009; White, 2006; White and Yu, 2005). When consumers are asked to provide the overall evaluation as well as specific ratings on various aspects of customer service in the survey, their response patterns to rating scales allow assessment/disentangle of negativity dominance among the respondents. Relationships of negativity dominance with negative emotions and behavioral intentions (repurchase intention, recommendation intention) are also assessed.

Data consisted of satisfaction ratings to a large-scale survey on customer service experiences when purchasing a new car at US auto dealers. The total number of respondents was over 35,000. For each respondent, negativity dominance was assessed by first calculating the “gap measure” between the overall evaluation (OSAT) score and average ratings of specific attributes. Based on the gap measure, the respondents were categorized into three groups. The first group consisted of respondents with a large POSITIVE gap measure (posOSAT Group). The second group consisted of respondents with a large NEGATIVE gap measure (negOSAT Group). The OSAT rating was at least one-full value higher or lower than the average of the corresponding attributes for posOSAT and negOSAT Group, respectively. Those whose OSAT rating fell within the one-full point value (negative or positive) belonged to the BASELINE group.

The three groups were examined with respect to various service ‘goodness’ indicators (e.g., helpful sales representative, complete follow-up, etc) to verify if these groups in fact had different levels of emotionally involving service experiences. In addition, the ratings for (1) intention to ‘repurchase’ (i.e., visit the dealer for paid service) and (2) intention to recommend by the three groups were compared to assess the impact of implicit negative/positive emotions on behavioral intentions.

The gap measure approach identified respondents who exhibited posOSAT and negOSAT patterns with approximately an equal size (16% and 11%, respectively). Both patterns were identified regardless of the overall satisfaction ratings (e.g., some respondents displayed the negOSAT pattern even though the OSAT rating was positive, or better than the neutral anchor, and vice versa.) The results of the service ‘goodness’ indicators were consistent between posOSAT and negOSAT with the former group showing more positive service experiences than the latter group.

The percentage distribution of “intention to repurchase” and “intention to recommend” for the three groups (posOSAT/BASELINE/negOSAT) both displayed a pattern consistent with negative dominance principle. The results clearly showed that the negOSAT group has a substantially higher rate of “definitely do not repurchase” (19%) or “definitely do not recommend”(18%). On the other hand, the posOSAT group did not show any differences from the BASELINE group’s (ranging 1 - 2%). Taken together, the algebraic gap measure approach seems not to support the positive-negative asymmetric effect, but these patterns with behavioral intention suggest that the no-sum mental processing takes place only among consumers who reported highly negative experiences.

Implications of the present study are threefold. First from the methodological perspective, a new quantitative approach was introduced that allows disentanglement of negativity dominance in the real-life survey context. With the application of the approach to customer service survey, the approach successfully depicts differences in response patterns when consumers with emotionally involving negative versus positive experiences are filling out satisfaction survey. Second, from the consumer psychology perspective, the study demonstrated how negativity dominance affects consumer’s response patterns to survey. Finally, the asymmetric response patterns extracted in this study provide important information to marketing researchers/practitioners (Mittal et al,

1998). By applying the quantitative approach introduced in this paper, consumers with implicitly stated negative emotions can be differentiated, which allows more in-depth analysis for improving consumer satisfaction.

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The Influence of Intra-Reference Group Differentiation on Brand Preference

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In consumer research, understanding the influence of reference groups is important because many consumer attitudes and behaviors are significantly influenced by reference groups (e.g., Bearden & Etzel, 1982; Burnkrant & Cousineau, 1975; Escalas & Bettman, 2005). Recent research suggests that brand congruence effect results from consumers' desire to express an identity that is compatible with those of reference group members. Brands are symbols that can be used to express one's self-concept, and one way for a brand to get across its symbolic meaning is through the type of consumers who use it (Escalas & Bettman, 2003). As a result, consumers form a self-brand connection to the brands used by reference groups whose images consumers desire to be associated with (Escalas & Bettman, 2005). In contrast, consumers would also consciously avoid using brands that are associated with outgroups because outgroup members present an image that is perceived to be undesirable (Berger & Heath, 2007).

Although the brand congruence hypothesis is generally supported, it sometimes yields alternative findings. Empirical evidence shows that uniqueness is one of the fundamental human needs, and having a unique identity requires a distinctive personal style, which is often manifested through ownership and use of exclusive possessions that can set one apart from others (Lynn & Harris, 1997; Snyder & Fromkin, 1977). The well-accepted theoretical explanation for this seemingly inconsistent finding is based on both the optimal distinctive theory (Brewer, 1991) and uniqueness theory (Snyder & Fromkin, 1977). The underlying assumption of both theories is that all individuals crave uniqueness to some extent. People constantly evaluate their relative position on the uniqueness identity dimension, which ranges from one end being highly unique to the other end being highly similar to others. Theories predict that a point of balance between uniqueness and similarity generates the optimal distinctiveness and creates the highest sense of comfort and acceptability. Thus, individuals would strive to maintain a psychological state where they perceive themselves to be moderately similar or unique to in-group others.

The present study proposes that the brand congruence effect associated with reference group is conditional upon the group being considered. Consumers would be less motivated to adopt a brand utilized by a majority of group members when the group is tightly knit and a high level of similarity exists among group members. Under such a high similarity condition, a need for distinctiveness in personal style would be aroused. In addition, the study hypothesizes that the need for uniqueness (NFU, hereafter) personality trait would moderate such a tendency.

Although every individual strives to maintain a sense of uniqueness, there are stable individual differences in terms of needs for uniqueness (e.g., Snyder & Fromkin, 1977; Tian, Bearden, & Hunter, 2001). Compared to people who score lower on NFU, individuals with chronic, higher NFU tend to work harder to remain differentiated, and they show a stronger preference for unique products. Finally, the study predicts that the relationship will be moderated by product types (i.e., self-expressive vs. non self-expressive products), suggesting that self-expressive products should be more sensitive to consumers' need for uniqueness as such products are often used to infer a consumer's identity and personality than non self-expressive products. In this study, fashion apparel and laundry detergent are selected to represent self-expressive and non self-expressive products, respectively.

Eighty-six college students completed the online experiment. The study is a 2 (group type: tightly-knit vs. loosely-knit) \times 2 (NFU: high vs. low) between-subjects design. Participants were first asked to complete the 31-item, seven-point, Likert-type Consumer's Need for Uniqueness (CNFU) scale adapted from Tian, Bearden & Hunter (2001) along with some filler questions. Then, they were asked to identify either tightly-knit ingroups or loosely-knit ingroups, based on one of the two group descriptions randomly presented. After this task, participants were asked to indicate their likelihood of choosing the fashion apparel and laundry detergent brands that are preferred by the majority i.e., 65% of the members of the group they just identified. NFU was measured as a personality trait, and a single measure was formed by averaging across items ($\alpha = .94$). On the basis of the single measure of NFC, two groups (high NFC vs. low NFC) were identified using median split.

The results of group identification task showed that the commonly identified tightly-knit ingroups among college students are sororities and fraternities, and loosely-knit ingroups are students from the same schools or majors.

The ANOVA results confirmed our general predictions. A 2 (tightly-knit vs. loosely-knit) \times 2 (high NFU vs. low NFU) between-subjects ANOVA revealed a significant two-way interaction for fashion apparel, $F(1, 82) = 11.18, p < 0.05$. Participants who scored high on NFU are less likely to choose a fashion apparel brand that was used by the majority of the tightly-knit reference group ($M = 4.32$) than those who scored low on NFU ($M = 5.87$). In contrast, high NFU individuals are more likely to choose brands used by loosely-knit ingroups ($M = 4.89$) because these individuals' needs for uniqueness were not threatened by similar product choice, due to the diversity among members of the loosely-knit groups. However, as predicted, the same two-way interaction between group type and NFU was not significant for laundry detergent ($F(1, 82) = 0.35, p = 0.56, M = 5.32$ vs. 5.00), suggesting that laundry detergent might be considered as a non self-expressive product and, therefore, is less susceptible to a consumer's need of expressing unique self-identity between ingroup others.

Overall, the findings of this study suggest that not all reference groups exert the same brand congruence effect on consumers' brand preference. That is, consumers are more likely to diverge from the ingroup on their brand choices when they perceive a high level of similarity between themselves and close ingroup others. In other words, whether reference groups have a positive influence on brand consumption would depend on the types of reference groups being considered. Further experiments are planned to replicate the results and disentangle alternative explanations.

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Visual Processing Fluency and Cognitive Effort's Influence on Choice Outcomes

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Consumers' quality of choice decisions generally declines when the amount of information presented exceeds certain thresholds, attributed in part to the strategies people employ to cope with the information in their decision-making environment (see Eppler and Mengis 2004 for a review). This research extends understanding by exploring the how the presentation of online information influences choice through the consumer's perceptual lens. This study examines how perceived visual fluency of information and cognitive effort associated with an online choice task influence consumers' choice quality and satisfaction outcomes.

As noted by Winkielman and colleagues (2003), “a growing body of research demonstrates that one’s subjective experiences at the time of judgment serve as an important source into our judgments. (p. 76)” Given humans’ limited attentional resources, understanding perceptual processes that influence consumer choice in an online environment may be particularly important given the proliferation of information which today attracts an estimated 223 million U.S. Internet users each month (www.clickz.com/stats/web_worldwide 2009).

This study adopts an interactionist perspective by examining the relationships among and between the objective and perceptual constructs simultaneously and shedding light on the interaction of information stimulus properties and perceivers’ cognitive and affective processes (Reber, Schwarz, and Winkielman 2004). Information processing theory and an environmental psychology framework (Stimulus-Organism-Response) are integrated to model the online choice experiment. Specifically a two-step process is tested. First, how the amount of information (stimulus) is presented is posited to influence how the information is aesthetically perceived, creating a degree of visual fluency (organism step 1). The degree of visual fluency is then posited to influence the cognitive effort associated with the choice task (organism step 2).

We examine these questions by empirically testing how (1) information breadth and information depth online influence perceived informational visual processing fluency and perceived cognitive effort, and (2) how perceived cognitive effort influences choice quality and choice satisfaction.. These mediating variables have generally been overlooked in previous research.

A U.S. nationwide online panel of 265 consumers was recruited to participate in the 2 x 2 information breadth (10 or 30 alternatives) and depth (5 or 15 features/alternative) choice experiment. Path analysis was used to test how the relational and predictive capabilities of information breadth and depth affect consumer’s perceived visual fluency and cognitive effort of information presented. The test of the measurement and structural models applies structural equation modeling (SEM)-based PLS analysis using SmartPLS 2.0 software (Ringle, Wende, and Will 2005). The asymmetrical distribution of some measures (e.g., choice quality) and the focus on the prediction capabilities of central endogenous constructs (e.g. cognitive effort) make PLS more conducive for analyzing the experimental data than would be covariance-based SEM. (Bagozzi, Yi, and Singh 1991). In addition, PLS runs all the regression pathways simultaneously, reporting the statistical significance and the strength and nature of the relationships between all measurement and structural relationships (Chin et al. 2003). Each of the constructs demonstrates acceptable reliability measures, as well as appropriate divergent and convergent properties.

Results suggest that (1) information breadth and depth exert differential influences on perceived cognitive effort; (2) though information breadth exerts a direct negative impact on cognitive effort, perceived informational visual fluency mediates information depth’s influence; (3) information depth has no direct impact on choice quality; and (4) cognitive effort negatively influences choice satisfaction, suggesting a process whereby a person’s cognitive state may influence affective choice outcomes. Within the context of this study, results suggest that perceptual measures rival objective measures for predicting objective choice quality outcomes.

Research that examines how various types of online information stimuli influence the ease of processing and using information may warrant additional attention. Examining how different informational contexts may influence the framing of decision-making by consumers is an area for further development (Lurie and Mason 2007). One area for extension may be the exploration and integration of perceptual factors as antecedents to the decision-strategies actually employed within a choice task. The proliferation of information on the Internet seems likely to continue. Simultaneously, the need to understand how humans can process information efficiently to make effective decisions should continue to grow in importance. Understanding how individual factors (e.g. one’s tendency to

maximize or need for cognition) may influence a person's perceptual processes of the informational environment may also be worthwhile and insightful endeavors.

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“Pay What You Want”: Theory and Experimental Evidence

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“Pay what you want” (PWYW) is a pricing strategy that has been employed in a number of real-world settings. The prevailing wisdom appears to be that its success depends on consumers' altruism or their innate sense of fair play. In this article, we consider whether PWYW can be a profitable strategy even when consumers are purely self-interested. Our model is an infinitely repeated pricing game with (effectively) a two-segment market, in which the firm could use a switch from “pay what you want” to fixed pricing as a threat to incentivize consumers to pay for its product even under PWYW. We find that theoretically, if (1) a high proportion of the market does not buy from the firm under fixed price; (2) price elasticity is high at some price level(s) that are just below the optimal fixed price; and (3) consumers' time discount factors are sufficiently high, then firm strategies with conditionally implemented PWYW exist that admit consumer-side equilibria with which the firm always allows PWYW and both the firm and consumers are not worse off under PWYW relative to under a baseline FP strategy. We conducted a laboratory experiment to test our theory. Two hundred seventy-two undergraduate subjects participated in the experiment. All the subjects volunteered to participate in the study which was billed as a decision-making experiment with payoff contingent on performance. Subjects were divided into groups of eight, and every subject played with the same group of seven other players for 20 games. Each game consisted of an indefinite number of rounds such that, after every round, there was a 90% probability that the game would continue to the next round and a 10% probability that the game would end immediately. We tested the following three PWYW pricing strategies:

Strategy 1. Subjects were told that, in the first round of every game, they can pay as they wish for firm S offering. Moreover, if, in a round with PWYW, the total payment to S reaches 400 tokens, PWYW will continue to the next round (if the game continued into the next round), but if the total payment is less than 400 tokens in a round, S would change its pricing scheme and would charge a fixed fee of 200 tokens per round in all future rounds (if any) of the same game.

Strategy 2. This strategy was similar to the first except that we raised the threshold to 680 tokens.

Strategy 3. This strategy was similar to Strategies 1 and 2 except that the threshold was set to zero. That is, S implemented PWYW unconditionally whatever payments (if any) it received from the players. The theory we developed predicts that only Strategy 1 can support a sustain PWYW pricing policy. In addition, we manipulated three Non-Strategic Factors, namely, context (neutral vs. rich instructions), suggested payment and communication (chat before each game).

The experimental results provide qualified support for the proposed PWYW regime. In particular, we find that a PWYW strategy with a pre-announced threshold profit induces highly sustainable PWYW among consumers iff: (1) the strategy theoretically admits PWYW-sustaining consumer-side equilibria, and (2) subjects are allowed to communicate with each other. That is, we find that, in our settings, strategic considerations (i.e., the existence of consumer-side equilibria that sustain PWYW) are necessary but not sufficient for behaviorally sustainable PWYW.

The managerial implication of our findings are further discussed.

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From Switching Intent to Actual Switching Behavior: A Construal-Level Theory Perspective

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Recent research has shown that repurchase intent is often not a good predictor of actual repurchase. A number of reasons for this discrepancy have been suggested in the literature, but have not been examined empirically. We propose that one critical distinction between switching intention and actual switching is that the former is a response to a hypothetical situation, whereas the latter is an action that is actually carried out. Recent behavioral research on construal level theory (CLT, see Trope and Liberman 2007 for a review) shows that when an event feels psychologically far away (e.g., when the event is going to happen in the distant future, is socially distant, or is hypothetical), people tend to focus on “central” aspects of the event – i.e., aspects that give direct implications to the desirability of the event. According to CLT, these aspects constitute the “higher level construal” of the event. On the other hand, when an event feels psychologically near (e.g., when it is going to happen in the near future, is socially near, or when is not hypothetical), people tend to focus on aspects that are associated with the procedures involved in carrying out the action (e.g., practicality, feasibility considerations). These aspects constitute the “lower level construal” of an event.

We first conducted a longitudinal study surveying cell phone service subscribers of all three providers in the city state of Singapore. This approach allowed us to measure satisfaction and other attitudinal variables and switching intent in one period, and subsequently observe actual switching behavior in the next period. The survey was conducted in six waves over a 24 months period.

Monetary switching costs (e.g., penalties for switching during a contractual period) and non-monetary switching costs (e.g., the hassle of going to the service provider to cancel the contract, signing up for a new contract, potentially changing cell phone number) feature highly in switching cell phone service switching. Based on CLT, we expect that monetary switching costs, which are closely related to the desirability of switching, constitute a higher level construal, whereas non-monetary costs constitute a relatively lower level construal of switching. According to CLT, consumers are likely to focus on desirability-related aspects and underestimate the importance of other feasibility-related considerations when they respond to hypothetical situations – to this extent, monetary costs, but not non-monetary costs, are likely to serve as a basis for their response to intention questions. Moreover, non-monetary costs will be taken into account only when consumers consider carrying out actual switching.

The findings of our longitudinal study confirm this hypothesis, to the extent that the non-monetary switching cost main effect and its interaction effect with satisfaction are insignificant in predicting switching intent. However, for actual switching behavior, the non-monetary switching costs effects explain more variance than the equivalent effects of monetary switching costs. This finding suggests that while non-monetary switching costs are important determinants of actual switching behavior, they may not be taken into consideration when consumers report their switching intention.

We then conducted a series of experiments to directly test the CLT and demonstrate how the consideration of non-monetary costs can be facilitated when consumers respond to intention questions. Specifically, recent research has shown that process simulation (i.e., asking respondents to visualize the step-by-step process of carrying out a certain action) highlights the feasibility-related aspects of an event and encourages a lower-level construal of the event. We therefore predicted and found that when process simulation is employed in surveys, it can potentially reduce the inconsistency between responses to intention measures and actual switching behaviors. Our findings suggest the possibility of an unobtrusive administration of this procedure in surveys that will improve the predictive power of intention measures of actual switching behavior. These findings have potential applications beyond the immediate switching behavior application to any intent-actual behavior measurement context.

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Using Message Framing to Reduce Dissonance Based on Regulatory Orientation

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Dissonance research has shown that individuals will seek out or be more receptive to information that will help them feel better about a decision or an action that resulted in the formation of cognitive dissonance. Dissonance theory also maintains that the seeking of information that confirms a particular position enable an individual experiencing dissonance to return to a state of cognitive balance. This research will demonstrate that the extent to which the positive or the negative cognitive element of dissonance is influenced by the consonant information that assist dissonance reduction will depend on the valence of the message (such as gain or loss highlighting), and whether the recipient of the message is promotion-focused or prevention-focused. It will also be shown that the regulatory orientation of an individual will play a vital role in dissonance reduction by causing them to be influenced by consonant information that is congruent with their particular regulatory state.

Is it possible that regulatory fit may have an influence in reducing dissonance by functioning as an additional positive cognitive element? If indeed regulatory fit is instrumental in the reduction of dissonance, will this reduction vary based on the domains (promotion-focus and prevention-focus) of regulatory fit? Further, will it be possible to change the valence of a consonant message to highlight gains or minimize losses, and have this valence affect dissonance reduction based on the particular regulatory state (promotion-focus or prevention-focus) of an individual who is experiencing cognitive dissonance?

Cognitive dissonance is a psychologically undesired state, and an individual who experiences it will be motivated to engage in a behavior that will facilitate its reduction (Festinger, 1957; Festinger, 1959; Harmon-Jones, 1999). Therefore, since the natural urge of an individual is to maintain a state of cognitive balance (Parkinson, 1997; Stone, 2003), an individual will have a tendency to engage in behavior that does not result in dissonance.

A promotion-focus individual will gravitate towards the pursuit of gains, and a prevention-focus individual towards the avoidance of losses (Avnet, 2006; Higgins, 2000). One could therefore make the argument that a promotion-focused individual will engage in avoiding non-gains if a non-gain results in the activation of the cognitive (or negative) element that will induce dissonance. A similar argument could also be made that a prevention-focused individual will engage in loss minimizing behavior since experiencing a loss is undesired for a prevention-focus individual.

An individual experiencing cognitive dissonance will seek out consonant information as a means of reducing this negative psychological state (Festinger, 1957). It could therefore be argued that the degree to which this information will help in reducing dissonance will depend on the regulatory-focus of the individual, and whether this consonant information is congruent with the regulatory focus or state of the individual at that point in time. The degree to which this may be true following the receipt of consonant information may depend on whether the message contains consonant information that highlights the receipt of a gain or the minimization of a loss.

The seeking of consonant information is a valid dissonance reduction strategy (Festinger, 1959; Harmon-Jones, 2000). It is therefore possible that a promotion-focused individual experiencing dissonance may seek information that is related to gains since they have an orientation towards gains. Thus, it is plausible that they may be more likely (relative to a prevention-focused individual) to notice consonant information framed in a manner to highlight a gain. Gain maximizing consonant information may therefore be effective in reducing the dissonance experienced by a promotion-focused consumer.

Similarly, it could be argued that a prevention-focused individual experiencing dissonance may seek information that is related to the minimization of losses if the information acquired helps in the reduction of dissonance that may have been experienced since they have an orientation towards the minimization of losses. Therefore, dissonance experienced by a prevention-focused individual, more so than a promotion-focused one, may be more easily reduced by consonant information that highlights the minimization of losses.

The research subjects were 320 MBA students of a university in the Pacific Northwest who participated in the research for the receipt of extra credits.

The research consisted of inducing a promotion- or prevention-focus in participants by asking them to a statement that discussed the positive benefits of education (promotion-focus) or the problems facing many school districts across the county (prevention-focus). Participants were then randomly assigned to various research groups. Half the promotion-focus participants, and half the prevention-focus participants were utilized in experiment A (gain highlighted framed message), and the other half of each in experiment B (loss highlighted framed message).

In each experiment, message framing was within-subjects while regulatory focus was between subjects. Participants were then presented with a lottery purchase scenario and asked to indicate the likelihood that they would participate in the lottery at various level of ticket prices (between subjects) and benefit levels for educational programs (between subjects) for the no-framed, and the framed condition (within subjects).

Perceived losses due to higher than normal lottery ticket prices represented the negative cognitive element of dissonance while the perceived benefit gains or funding for educational programs from the lottery represented the positive cognitive element of dissonance. Based on the combined influence of lottery ticket prices and funding increases for educational programs, participants were asked to indicate the likelihood that they would participate in the lottery when no framed message was presented as well as when presented with a framed message (within subjects).

The primary hypothesis that the regulatory state of an individual play a role in determining if an experienced cognitive dissonance will be reduced depending whether the valence (gain or loss highlighting) of a consonant message received is congruent with the regulatory state of the individual was indeed validated by this research.

In the dissonance reduction model that was validated, the cognitive element that results in regulatory fit was added to the positive cognitive element of dissonance (thereby increasing it) in promotion-focused individuals or was used to minimize the negative cognitive element of dissonance (thereby reducing it) in prevention-focused individuals. The findings of this research could have important implications for the development of adverts.

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The Effectiveness of (non)Traditional Gender Portrayals in Print Advertisements

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Questions regarding the effectiveness of (non)traditionally gendered advertisements has intrigued researchers since the early 70's. These include: (1) whether the use of traditional or non-traditional gender stereotypes is more effective in advertising, and (2), what the role of gender attitudes in determining the effectiveness of such ads is? Yet a clear answer to the questions has not emerged. Empirical studies have mostly focused on female depictions and rendered mixed, if not contradictory, results (see Wolin, 2003*and Zawisza, 2006 for overviews). Due to various methodological differences the results of these investigations are difficult to integrate and thus systematic investigation is still needed. This was undertaken in a research programme presented here.

Two theories provide competing answers to the first question. According to early theorizing (Fiske & Stevens, 1993; Eagly, Mladanic & Otto, 1991) any diversion from the prescriptive element of traditional gender stereotype should result in negative responses. Thus breaking these prescriptions (e.g. by using non-traditional businessman or househusband depictions) should decrease advertising effectiveness (i.e. the breaking tradition hypothesis).

However, according to more recent theoretical developments, such as Stereotype Content Model (Fiske, Cuddy, Glick & Xu, 2002), most stereotypes have an ambivalent content which is a mixture of warmth (W) and competence (C). People who are perceived as high on warmth but low on competence are a target of paternalistic stereotypes: they are liked but not respected (e.g. housewives or househusbands) (Eckes, 2002; Fiske, et al. 2002). People who are low on warmth but high on competence are subjected to envious stereotypes: they are respected but not liked (e.g. businessmen or businesswomen) (Eckes, 2002; Fiske, et al. 2002). Given this – along with the fact that: (1) ad liking has been identified as one of the most important factors in ad effectiveness (Du Plessis, 2005); (2) there is a primacy of warmth over competence judgements (Fiske, Cuddy & Glick, 2006) – a competing, stereotype content hypothesis can be proposed. It predicts that 'paternalistic' (female and male) stereotypes would increase advertisement effectiveness compared to 'envious' (female or male) stereotypes due to (dis)liking of the depicted characters.

With regards to the role of the perceivers' initial gender role attitudes, Social Judgment Theory (Sherif & Hovland, 1961) suggests that if the ad uses a counter-attitudinal appeal, it could be rejected, which will in turn decrease the ad effectiveness. Therefore our third prediction is that the match between initial gender role attitudes and advertisement type would increase advertisement effectiveness (i.e., the match hypothesis).

A programme of five experiments was conducted to test these three hypotheses across male and female depictions, various products, samples and countries (i.e. Poland, SA and the UK). In each experiment participants were shown two mock printed ads in random order (traditional or non-traditional) each of which was followed by scales measuring affective, cognitive and declared behavioural responses to the ads. Following this, participants were asked to take part in an ostensibly unrelated study on gender attitudes.

Experiment 1 was conducted using pen and paper methods on 80 male and female British students. It examined female (non)traditional depictions (housewife vs businesswoman) and attitudes to female gender roles in mock print advertisements where the product advertised was mineral water. Experiment 2 made use of the same product but used an Internet survey on 180 males and females of different ages and backgrounds. It examined depictions of men (househusband vs businessman). Data from both experiments was analysed using (1) a 2 (ad type) x 2 (gender attitude) mixed design ANOVA, and (2), a moderated regression analysis. Both experiments and analyses provided support for the stereotype content hypothesis over the breaking tradition hypothesis (i.e. housewives and househusbands triggered more positive affect and cognitions than businesswomen and businessmen respectively) but only partial support for the match hypothesis.

The latter finding may be explained by high egalitarian norms in the UK. In order to test this possibility, experiments 3-5 were conducted on student samples from 3 countries which differ in the strength of egalitarian norms (Best & Williams, 1990; Glick et al., 2000; Glick et al., 2004): liberal UK (n=214), moderately liberal-conservative Poland (PL) (n=177) and conservative SA (n=182). They used the same pen and paper methodology as Experiment 1, but examined male depictions, used new stimuli, new products (i.e. orange juice) and measured male gender role attitudes (AMI, Glick & Fiske, 1999). Since Stereotype Content Model has gained support across cultures (Fiske, Cuddy, Glick, 2007; Cuddy, Fiske & Glick, 2008) the stereotype content hypothesis was predicted to hold across all three countries. However, the match hypothesis was predicted to hold only for the most conservative country (i.e. SA).

This was based on Aversive Racism Theory (Gaertner & Dovidio, 1986) which, by extension to sexism, suggests that in egalitarian countries people may be motivated to appear unprejudiced and thus will not respond in line with their gender attitudes. As predicted, two-way ANOVAs, 2 (advertisement type) x 2 (gender attitude), and the additional moderated regression analyses conducted for each country separately, showed consistent support for stereotype content hypothesis across all three countries and for the match hypothesis in gender conservative SA but not in more liberal PL or the UK. The results of this programme of research provide original and robust evidence for cross-cultural applicability of Stereotype Content Model to advertising and initial support for the moderating role of egalitarian norms for the match hypothesis. Taken together, this research programme shows that what matters for advertising effectiveness is not so much breaking gender stereotypes, as was initially thought, but their content: warmth wins even if accompanied by instances of breaking traditional gender roles (i.e. as in the case of househusband depiction). This finding generalises across male and female gender stereotypes, low-involving products and three countries. Moreover, the predictive value of explicit measures of gender role attitudes is limited in countries with high level of egalitarian norms. Both findings shed light on the reported inconsistencies in earlier empirical investigations on the effectiveness of gendered advertisements.

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The Concept of Shopping: Similarities and Differences by Gender

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Although it must be acknowledged that there are gender differences in shopping preferences and activities, these differences in male and female shopping behaviour are hypothesised to have much more to do with differences in interests than in any intrinsic difference between men and women. Therefore the studies presented here investigated potential differences in men and women's conceptions of shopping. The first study asked male and female participants (N= 106, 52 produced list of types of shopping and 54 produced lists of shopping activities) to list either types of shopping or shopping activities. The data were analysed using chi-Squared analyses and suggested that men and women may have very similar concepts of what shopping is. There were only very few differences between the lists produced by the male and female participants. The second study used these preliminary results and investigated the conceptions of shopping of men and women in more detail using a two-phase methodology. Phase one consisted of an item generation task in which 228 participants were given 3 minutes to generate as many exemplars of shopping as came to mind. These data were analysed using thematic analysis to create a list of the 30 most mentioned items from Phase 1, and this list was used for the free-sorting task in Phase two. In Phase two 100 participants (50 men and 50 women) were invited to the lab and presented with a pack of index cards with the 30 exemplars of shopping printed on them. Participants were then asked to complete the free-sorting task. Most participants needed between 5 and 10 minutes to complete the task. The Data were analysed using two different techniques; Individual differences scaling (INDSCAL, Carroll & Chang, 1970) via the Proxscal command in SPSS and Extended similarity tree analysis (EXTREE, Corter & Tversky, 1986). The results once again showed that there are only very subtle differences between how men and women seem to conceptualise shopping as an activity. According to these data shopping can be summarised according to the following two dimensions from the INDSCAL analysis. Dimension 1 seems to show the difference between the pragmatics of shopping and the negative feelings associated with shopping, while Dimension 2 captures the social aspects of shopping and the financial aspects of shopping. The EXTREE analysis shows more detail about the subtle differences in male and female conceptions of shopping.

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Online Videos: What is Their Potential to Persuade?

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Increasingly, consumers rely on product information that is provided online through blogs, product recommendations, social networks, and user-generated video. Often these materials lack sufficient source information to determine the identity and intent of the creator, yet consumers frequently rely on such consumer-generated medium in forming product and brand evaluations (Gershoff, Broniarczyk, and West 2001). Video aggregation and social network sites such as YouTube, Hulu, and Facebook allow users and marketers to create and share online video with ease. A portion of these online videos are in fact vigilante marketing communications designed to strongly resemble ads for brands while others are legitimate advertisements created by companies/ad agencies (Muñiz and Schau 2007). Although the sophistication of these vigilante marketing communications has allowed consumers to create content similar to company/agency created material, we hypothesize that agency/company created videos are in fact more influential than CGV's when source identification and intent is not provided (as is commonly the case). Therefore, our research investigates perceptions of online video content for three diverse brands (Ford vs. Burger King vs. Diet Coke).

We hypothesize that although no contextual cues indicate who created the video, viewers will consider company created online videos to be more authentic than CGV's and that these highly authentic ads stimulate positive attitudes towards the video. Viewers implicitly evaluate the ad's content for indexical cues indicating ad authenticity based upon brand and product specific exemplars (Grayson and Martinec 2004). Viewers evaluate indexical cues to determine if the online video authentically replicates an 'advertisement,' as defined by the viewer. As such, CGV's, designed to mimic company/agency created videos, fall short of the indexical prototype, while company/agency created videos do not.

Fifty-five undergraduates from a Midwestern university received extra credit to participate in this study. It was web-based and administered via Qualtrics. The introduction informed participants that the nature of the study was to understand how people use online video. During the introduction, participants watched a short video and were asked to adjust their visual and audio settings. We then presented participants with a filler video and related questions designed to mask the intent of the study and to allow participants to adjust to the instrument.

We randomly assigned participants to treatment conditions and presented one of four possible videos. All videos were available on YouTube and were verified as either consumer or company/agency created. Each video was approximately 30 seconds long and varied according to two factors 2 (Creator: Consumer vs. Agency/company) x 3 (Brand: Burger King vs. Diet Coke vs. Ford).

After participants viewed the video, they were asked a series of ad related questions. These questions were tailored to the specific *ad* and measured the following constructs: ad affect (Madden, Allen, and Twible 1988), attitude towards the ad (Bergkvist and Rossiter 2007), ad liking (Bergkvist and Rossiter 2007), and ad authenticity. Following these questions, participants were asked to focus exclusively on the brand and to provide responses to the following *brand* focused measures: brand interest (Machleit, Allen, and Madden 1993), brand familiarity (Machleit et al. 1993), attitude towards the brand (Bergkvist and Rossiter 2007), and brand authenticity.

For authenticity towards the ad, we asked participants to rate the ad on four bipolar adjectives, such as real versus fake, authentic versus counterfeit, natural versus artificial, and genuine versus phony. The scale for authenticity of the ad was a seven-point, four-item semantic scale ($\alpha = .88$). Authenticity of the brand was also assessed using bipolar adjectives; it was a seven-point, three-item scale ($\alpha = .89$). Previous studies establish the validity and reliability of the remaining measures; however, scale reliability ($\alpha > .8$) was reconfirmed in all cases (Nunnally and Bernstein 1994).

Participants then watched a video that was counterbalanced with respect to the first on the two factors 2 (Creator: Consumer vs. Agency/company) x 3 (Brand: Burger King vs. Diet Coke vs. Ford). Therefore, participants were never asked to rate two videos from the same brand or two videos from the same type of creator. Participants then answered a final series of ad and brand related questions as previously outlined.

Results were assessed using MANCOVA with the creator and brand as independent factors, authenticity (of the ad and brand), ad affect, attitude towards the ad, attitude towards the brand, and brand interest as the dependent variables, and four covariates: order of ad presentation, gender, and brand familiarity.

We predicted that company/agency videos would be more authentic than CGV's. Our findings provide support with this prediction. For company/agency created videos we find greater authenticity, $F(1,98) = 4.342, p < .04$, ($MAg = 15.64$ and $MCon = 14.106$). We also predicted that company/agency created videos would result in higher levels brand interest than CGV's. Our findings provide

support for this prediction, $F(1,98) = 5.356, p < .023$, ($MAg = 16.89$ and $MCon = 14.39$). Our final prediction was that company/agency created videos would generate more positive attitudes towards the ad than CGV's. This prediction was also supported, $F(1,98) = 5.951, p < .017$, ($MAg = 4.293$ and $MCon = 3.691$).

We are in the process of conducting follow-up studies to both replicate these results using different manipulations and to further explore the processes underlying these effects. We also intend to use path analysis to assess the nomological network and to identify specific indexical cues used to determine authenticity. These results will be ready for the SCP poster presentation.

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Consumer Inhibition: Brands and the Go/No-Go Task

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Whether selecting a candy in a shop or picking a digital camera online, there is usually a plethora of options from which consumers may choose. With such abundance, consumers must filter out and inhibit their responding to some of the options using a variety of cognitive, emotional, and heuristic means. Thus, the process of inhibitory control is an essential component of consumer decision making. Within more clinical areas of psychology inhibitory control has been linked to drug addiction, schizophrenia, depression and a variety of other disorders. One of the primary tasks that has been used to probe the mechanisms of inhibitory control is the Go/No-Go task (GNG). Although behaviourally simple, this task has been used to understand the brain networks underlying inhibitory control. In the current experiment we used a variant of the GNG to assess how brand logos influence inhibitory control.

In our task participants viewed 120 brand images presented one at a time (appearing at a rate of Hz with a stimulus duration of 600 msec). They were required to press the space bar in response to each image as quickly as possible ("Go" trials). Approximately 90 percent of the trials were "go" trials; thus, over the course of the experiment, a pre-potent tendency to respond was created. Participants were also told to withhold their response ("NoGo" trials) if the logo appearing was identical to the one they just saw (i.e. it repeated). Because we wanted to assess the impact of brand familiarity, we used a range of familiar and unfamiliar brand logos. Specifically, we selected 60 common UK brand logos and 60 uncommon foreign brand logos for inclusion in the stimulus stream. The logos represented a selection of fast-moving consumer goods and service brands. The task consisted of 1080 trials and thus each brand appeared eight times as a "Go" stimulus and once as a "NoGo" stimulus. Following the GNG task participants rated the brand logos on both familiarity and liking.

The GNG task requires fairly constant rates of responding (i.e. 90% of the time participants press the space bar once every second). Thus, as expected, we did not find any difference in the simple reaction times to familiar vs unfamiliar stimuli. Surprisingly, participants demonstrated a generally more cautious attitude of responding to the familiar brands: they were significantly less accurate at responding to these brands in the Go trials. However, when a NoGo trial occurs and the participant fails to inhibit their response, both the failure itself and the speed of the failure say something about the potency of the stimulus. In our data, we were surprised to find that participants were just as accurate at withholding responses to familiar and unfamiliar stimuli. In other words, although they did occasionally make such "errors of commission" to stimuli, they did not make significantly more of them to the familiar stimuli.

However, we did find that when such errors were made, they were made significantly faster in response to familiar stimuli. This suggests that although familiar stimuli are not more likely to trigger a failure of inhibition, when they do, it happens more rapidly. Future studies examining factors such as mood, desire, time-constraints, and cost could help uncover the relationship between our lab-based findings and real-world consumer phenomena such as impulse purchases, shopping addiction, and brand loyalty.

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Effects of Information on Taste Perceptions of a Beer Sample

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Previous research has suggested that marketing, advertising, and the manner in which a product is packaged influence the overall sensory evaluation of consumers (Wansink, Payne, & North, 2007). However, recent research by Siegrist and Cousin (2009) has questioned whether consumers' sensory experience (i.e., taste, smell) of a consumable product is actually altered through marketing and product packaging or whether it is only the sensory evaluation of the consumable that is affected. To explore this hypothesis, Siegrist and Cousin gathered 136 wine drinkers and placed them in one of five conditions: Positive or negative information about a wine before drinking a sample of wine, positive or negative information about a wine after drinking a sample of wine, or a control condition. In the positive condition, the participants were told "You will taste a wine that received 92 out of 100 points from Parker. . ." (p. 763), with accompanying information about who Parker is (" . . . a well known wine critic. . .", p. 763), and information about what Parker's score ranges meant (e.g., "50-69 points: unacceptable to below average. . .", p. 763). The negative information condition statements were identical with the exception of the wine rating that was changed from a score of 92 to a score of 72 by the wine critic. Siegrist and Cousin used a wine that was rated 92 out of 100 points by the well known wine critic in all conditions.

Results from this study indicated that participants who were in the positive information after, negative information after, and the control condition rated the wine very similarly (on average, approximately 50 points on a scale from 0 to 100) whereas the participants in the positive information before condition rated the wine on average 10 points higher (61 out of 100 points). Similarly, the participants in the negative information before condition rated the wine approximately 10 points lower than the average for the three groups noted above (42 out of 100 points). Siegrist and Cousin concluded that providing negative or positive information about the wine before the wine tasting actually changed the sensory experience of drinking the wine, not just the overall sensory evaluation of the product. Thus, the authors suggested that wine tasted better or worse to participants based on receiving positive or negative information before actually consuming the product.

The purpose of the present study was to replicate the Siegrist and Cousin (2009) study in general sample of individuals who regularly drink beer and those who do not. The present study was meant to extend the findings offered by Siegrist and Cousin by determining whether taste preference for beer is also affected by information presented before consumption of beer, or whether the effect found in the Siegrist and Cousin was an artifact only demonstrated in a sample of individuals who regularly drink wine.

Researchers recruited a sample of 203 participants from three locations: (a) A suburban bar outside a major city in the Southeast (n = 95; 46.8%); (b) The campus of a small liberal arts college in the Southeast (n = 73; 36.0%); and (c) A university sponsored beer-

tasting event at a small liberal arts college in the Southeast ($n = 35$; 17.2%) Participants ranged in age from 21 to 68 with a mean age of 29.6 ($SD = 11.1$) and were primarily White ($n = 167$; 82.8%). More than half the participants were men ($n = 130$; 64%), and the majority had either completed some college ($n = 114$; 56.2%) or completed a college degree ($n = 52$; 26.6%). Greater than half the participants were single and never married ($n = 128$; 63.1%) and nearly three-quarters of the sample reported having no children ($n = 151$; 74.4%). Only a small percentage of the sample ($n = 7$; 3.4%) indicated that they had experienced alcohol addiction or dependence.

Participants were randomly assigned to one of five conditions: Negative information before tasting, negative information after tasting, positive information before tasting, positive information after tasting, or a control condition where no information about a beer sample was provided. Participants in the positive or negative information conditions received identical explanations about the beer with only the ratings of the beer changed to differentiate conditions. For example, the positive information after condition read: "You tasted a beer that has been rated by two different organizations: The Beverage Testing Institute, which uses panels of expert judges and rates beer in a controlled environment, and the Alstrom Brothers, two beer experts who founded the website and magazine Beeradvocate.com. The beer you tasted received 97 out of 100 points from the Beverage Testing Institute and an A+ from the Alstrom Brothers. According to the Beverage Testing Institute's scale, beers rated under 80 are 'not recommended.' According to the Alstrom Brothers, beers that they score a C- or lower are 'not worthy.'" The ratings for the negative information condition were changed to a score of 71 for the Beverage Institute of America and "C-" for the Alstrom brothers to coincide with the negative wine score in the Siegrist and Cousin study.

To measure subjective perceptions about the taste of the beer, a 10cm line was printed on a sheet of paper with "do not like at all" as the left anchor and "like very much" as the right anchor. Participants were asked to make a mark on the line that indicated their liking of the beer. Further, after completing this task, participants were asked to indicate in US dollars the highest amount they would be willing to pay for a 12 ounce bottle of the beer.

Participants were voluntarily asked to participate in the study at the locations noted previously. After participants were screened to ensure they were of legal drinking age, written consent was obtained. Each participant was then given a packet of study protocols and a 1.8 ounce sample of beer (an amount similar to the 50g of wine used in the Siegrist and Cousin, 2009 study) poured at approximately 55 degrees Fahrenheit into a four ounce black plastic cup. The beer used for this study was an abbey-style triple ale produced in Canada called La Fin Du Monde (Unibroue, 2009) and was chosen because of appearance (yellow, golden body with bright white head) and its high ratings by beer experts. The beer retails for approximately \$2.25 US per 12 ounce bottle in the location where the study was conducted, and the beer was scored 97 out of 100 points by the Beverage Tasting Institute of America and received a score of "A+" from the Alstrom brothers.

With the exception of the control group, all groups received either positive or negative information about their sample of beer, with the positive and negative information before groups receiving information before drinking their sample of beer whereas the positive or negative information after groups received the information after drinking but before rating their sample of beer. The control group was simply asked to drink the beer sample and complete the outcome measures.

To explore differences in the groups, we first used additive and multiplicative weights to convert the marked-line rating of the beer into a score from 0 to 100 as performed by Siegrist and Cousin (2009). To ensure that the ratings of the beer were generally consistent across the three data collection sites, we conducted a one-way analysis of variance (ANOVA) with location as the single factor and subjective rating of the beer as the single dependent variable. The ANOVA was statistically significant, $F(2, 191) = 7.441$, $p = .001$,

and post-hoc evaluations of the means for the three locations suggested that that the data collected at a university sponsored beer tasting were statistically significantly different than the ratings collected at the other two locations. Thus, for the purpose of further analysis, we removed these 35 data points and only included data collected on the college campus and at a suburban beer bar.

To explore differences on the subjective perceptions of the beer and the highest price that participants were willing to pay for the beer, we subjected our data to a one-way multivariate analysis of variance (MANOVA) with the information condition as the sole, five level independent variable. Results of the MANOVA were not statistically significant, Wilks' Lambda = .953, $F(8, 304) = .929$, $p = .493$. Despite the non-statistically significant findings, there were some interesting trends in the data. When examining the subjective perceptions of the beer, the positive information before condition had the highest ratings of the beer ($M=55.33$, $SD=.26.01$) but these ratings were only about one half point higher than the positive information after condition ($M=54.69$, $SD=31.14$). The negative information before condition evidenced the lowest beer ratings ($M=46.82$, $SD=31.06$) but these were not much lower than the negative information after ($M=48.88$, $SD=24.51$) or the control condition ($M=48.36$, $SD=30.81$). We computed a standardized effect size measure between the highest (positive information before) and lowest (negative information before) conditions, and the resulting Cohen's d was .23, suggestive of a small effect. As regards highest price participants were willing to pay for the beer, the positive information before condition had the highest price ($M=4.33$ $SD=3.76$) but also a standard deviation that was more than one dollar greater than any other group. The positive information after condition evidenced the lowest price participants were willing to pay for the beer ($M=2.94$, $SD=1.90$) whereas the means for the other three groups was about \$3.50.

The purpose of the present study was to replicate the Siegrist and Cousin (2009) study in general sample of individuals who regularly drink beer and those who do not. Results suggested no statistically significant differences among the four information conditions and the control group, but a standardized effect size measure computed between the highest and lowest beer rating group suggested a small effect of information on the subjective beer ratings. No meaningful differences in the price participants were willing to pay for the beer were noted.

In exploring the meaning of our results, it is important to note that the present study used a general sample of consumers who both drank beer and those who did not, a departure from the sample used in the Siegrist and Cousin study in which those authors used an exclusively wine-drinking sample. Further, our data were collected in more than two different locations including a small liberal arts college campus and a suburban bar, again in contrast to the Siegrist and Cousin study that used only college students. Examination of our data revealed that participants from the suburban bar (which is known for its extensive beer selection) tended to score the beer higher than those participants on the college campus. Finally, participants may have found it difficult to accurately identify the amount they would be willing to pay for a single bottle of beer as beer sold in most stores is sold in packages of six or larger. Clearly, further research is needed to clarify whether the effect demonstrated in the Siegrist and Cousin (2009) study is applicable to the general alcoholic beverage consuming population or whether it is simply an artifact found within a wine consuming sample.

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Dynamic Changes in Affective Forecasts in Intertemporal Consumption Choices

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Consumption decisions often involve predictions of future feelings. Some consumption choices, such as which house to buy or where to spend the spring break, often involve hedonic predictions (ie, how pleasant such consumptions would make us feel) at different points in time in a temporally extended decision situation (ie, intertemporal choices). The literature in affective forecasting converges to suggest that affective forecasting is generally inaccurate (e.g., Buehler & McFarland, 2001; Sanna & Schwarz, 2004; Wilson & Gilbert, 2003). Such forecasting inaccuracy manifests in durability bias (Wilson & Gilbert, 2003), intensity bias (Buehler & McFarland, 2001) and temporal biases (Sanna & Schwarz, 2004). Research in this area usually takes a time slice approach (Finkenauer et al., 2007), computing the before-and-after difference between an affective forecast made at one point in time before a focal event takes place and a retrospective affect measure at one point after the focal event has taken place.

A growing body of work suggests that dynamic changes in affect occur not only after an event has taken place but also prior to it (e.g., Finkenauer et al., 2007). In an intertemporal choice situation, changes in affective forecasts are particularly salient. The objective of this research is to examine the progression of affective forecasts in temporally extended consumption choice situations. Specifically, we distinguish between predecisional affective forecasts and prefactual affective forecasts. Predecisional affective forecasts refer to forecasted emotions of a decision outcome before a decision is made, while prefactual affective forecasts are defined as forecasted emotions of a decision outcome after a decision is made but before the actual consumption takes place, or “before the fact” (Sanna, 1996; p.1020). We posit that predecisional and prefactual affective forecasts are phenomenologically different on three accounts: 1) In a decision situation, predecisional affective forecasts temporally precede prefactual affective forecasts; 2) Predecisional affective forecasts are based on a mental representation of a few abstract features of the event (high-level construals) while prefactual affective forecasts rely on more concrete and incidental details of the event (low-level construals); and 3) The underlying motivational force of predecisional affective forecasts is predicted utility while that of prefactual affective forecasts is decision utility.

In a longitudinal study involving a spring break vacation choice, we provide participants with an opportunity to forecast their affective reactions at different points over the time course prior to the spring break event. In doing so, this research examines the dynamic shift in hedonic predictions when predecisional affective forecasting progresses to prefactual affective forecasting. At each stage of affective forecasting, the effect of temporal distance to the future event on hedonic predictions is also examined. We expect a quadratic change in hedonic predictions between predecisional and prefactual affective forecasts due to their motivational differences. Furthermore, we predict a linearly decreasing pattern of predecisional affective forecasts over time due to temporal biases, and a linearly increasing pattern of prefactual affective forecast over time due to time discounting.

Participants and Procedures. Undergraduate students on a Midwestern university campus will be recruited to take part in this study in exchange of course credit. Spring break vacation, a common consumption experience amongst the undergraduate population will be chosen as the context of this research. Participants will complete a set of affective forecast measures via an online questionnaire approximately 8 weeks, 6 weeks, 4 weeks, 2 weeks and 2-4 days prior to the spring break event.

Affective forecast measures. Following Wirtz et al. (2003), the questionnaire is designed to capture three separate but related affective forecast measures: positive affect, negative affect, and overall subjective experience. Participants will respond to a series of positive and negative adjectives on 9-point scales anchored by 1 (not at all) and 9 (very much) (Sanna, 1996; Watson, 1988). The positive affect scale consists of six items: happy, pleased, satisfied, delighted, joyful, and fun. The negative affect scale includes six items:

unhappy, frustrated, disappointed, worried, anxious, and regretful. Participants' ratings of the negative affect adjectives will be reverse scored and averaged with those of the positive affect adjectives. The anticipated overall subjective experience will be captured on a three-item 9-point scale: "I expect to enjoy spring break", "I think this break will be fun", and "I will be satisfied with this vacation experience" Control variables. The following variables will be used as control variables in the data analysis (Wirtz et al., 2003):

Past experience with the destination (e.g., "Have you visited the destination previously?"), travel companion (e.g., "Are you travelling alone, with family, with friends, with significant others?"), and duration of the vacation (e.g., "how many days will you be traveling?").

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Perception of Commercial Advertisements Publicizing CSR Activities by the Consumers

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CSR (corporate social responsibility) has been widely acknowledged and gaining popularity in the business world. However, the effect of advertizing the contribution to the society made by the corporations on consumer psychology has not yet been well investigated. Does it have positive effects on consumer interest and image of the brand? If so, to what extent, on which dimensions is it effective? The present study investigates responses of the consumers to commercial advertisements which publicize that the organization carries out CSR activities. Two-hundred and fifty-six Japanese university students participated in the study. Participants in the experimental condition were exposed with a flier of a bakery which contains information of their products (product names, prices, etc.) along with a statement that a part of their sales is contributed to welfare of mentally challenged persons. Meanwhile, participants in the control condition were presented with an almost identical flier, with only one change had been made from the experimental condition: the statement concerning the contribution to welfare was omitted. Immediately after the exposure, they filled out a questionnaire in which they evaluated their interest in purchasing the products, image of the products, and impression of the brand. The statement of CSR activities did not arouse consumer interest (experimental condition: $M = 9.44$, $SD = 4.62$; control condition: $M = 9.06$, $SD = 4.35$; $t < 1$, ns.). 2 (social contribution: stated/not stated) \times 2 (impression dimension: warmth/strength) ANOVA on the brand image revealed a significant effect of social contribution ($F(1,244) = 743.41$, $p < .001$) and impression dimension ($F(1,244) = 7.40$, $p < .01$), while the interaction effect did not reach the significant level ($F_s < 1$, ns.). That is, the "warmth" dimension of the brand image showed a significant increase (experimental condition: $M = 11.76$, $SD = 3.18$; control condition: $M = 10.37$, $SD = 3.61$) as well as the "strength" dimension did (experimental condition: $M = 19.80$, $SD = 5.23$; control condition: $M = 18.43$, $SD = 5.52$). These results imply that the advertisement of making contribution to the society by a corporate improves the overall image of the brand, but it does not necessarily promote consumers' interest in purchasing their product. More research is in need to specify the factors which moderate the effect of the improved brand image on consumer interest. It is notable that the participants perceived the reasonableness of the price marginally higher in the experimental condition than those in the control condition ($M = 6.57$, $SD = 1.99$; $M = 6.09$, $SD = 2.01$; $t(249) = 1.88$, $p = .06$), although the prices provided in the flier were identical in the experimental condition and the control condition. It might be the case that consumers expect CSR-associated products in general to be rather expensive. The expectation of high price might serve as an anchor of evaluation to which the participants' perception of the target products' pricing were contrasted, and resulted in the favorable attitude toward the price in the experimental condition. These findings have important implications for research on consumer psychology concerning consumption of CSR-associated products, and promote further advancement of the social contribution made by corporations.

Consumer Receptiveness to Product Exposure and Availability in Underserved NeighborhoodsRuth Chavez, *Metropolitan State University of Denver*Tung-Zong (Donald) T. Chang, *Metropolitan State University of Denver*

Marketing has played an important role in the determination of quality of life in market economies as consumers are affected directly and indirectly by marketing factors, such as product quality and safety, price, availability and distribution, promotion, etc. For food products, such impact could be even more obvious as research has documented how the marketing of food products has affected consumer wellbeing. One of the urgent issues is the cumulative evidence that points to the effect of food marketing on obesity (Seiders et al., 2004). More alarming are patterns of health disparities directly related to socio-economic factors (Bodie et. al., 2008; Braveman, 2006).

Among ethnic groups, Hispanics represent the highest growth with a large number of immigrants who are often at lower socioeconomic ladders with below average education achievement and above average household size. The U.S. Census (2008) projects this formidable consumer market will account for 30 percent of the nation's total population by the year 2050. Thus, nearly one in three U.S. residents will be Hispanic. Many are heavily influenced by the media and not making health appropriate food choices. As a result, they are negatively affected by obesity-causing food products (Ogden et al., 2006). Obesity prevalence is 21% higher for Hispanics, compared to Non-Hispanic White counterparts (CDC, 2009). Furthermore, low-income residents underserved by mainstream supermarkets must rely on neighborhood corner stores to provide basic grocery needs. Such corner stores opt to carry high-margin, heavily advertised processed food, and limit the availability of healthy alternatives. Given that low fruit and vegetable consumption is an important risk factor, consumers living in poor food environments disproportionately bear the burden of chronic disease (Hall, et al., 2009).

In resolving the problem of inadequate access to healthy food in consumer constrained neighborhood environments, community-based interventions are considered viable alternatives to alleviate the impact on vulnerable populations. Building adequate capacity in neighborhood corner stores could be a promising approach to promote consumer well-being. As Peterson (2006) in the marketing orientation conceptual framework suggests fundamental dimensions of consumer quality of life are related to choices for goods, the cultural context, and physical environment. With the right intervention, neighborhood communities could simultaneously sustain business performance and promote consumer well-being.

A community initiative was implemented by a public health agency to make healthy food alternatives, such as fruits and vegetables available at food desert neighborhood areas. The health initiative aimed at modifying food purchase and consumption patterns by increasing exposure and availability of such products to create a sustainable and beneficial marketing environment for both stores and shoppers. The initiative has built relationships with the participating corner stores, distributors, as well as the local community. As store space is limited, the corner storeowners were given incentives in the form of free supply of vegetables and fruits in exchange for shelf space allocated for such products. With greater exposure and availability, consumers might gradually modify their purchases with an increase in the intake of fruits and vegetable. As intake of healthy food alternatives is built into consumer routine purchases, incentives for stores are expected to gradually decrease to a sustainable level, meaning without subsidy. The result could be a sustainable retail environment for resident consumers. This study evaluates the impact of the intervention on consumer attitudes, self-reported behavior modifications (purchase and consumption), perceived personal, and consumer well-being. As the main objective of the study is to assess consumer receptiveness during the program's early phases, we plan to conduct a store audit, a shopper survey, and a household inventory survey. A store audit will examine the availability and display of healthy and unhealthy food items in the corner stores and selected benchmark stores in other neighborhood markets. A shopper survey will be conducted in the stores where the

initiative has been implemented. For residence shopper survey, a cluster/stratified sampling procedure will be employed to selected residences in the defined area. Finally, a household inventory audit is designed to discover what food items are actually present in the household.

The present summary describes a research in progress that aims to examine a health initiative that could be instrumental in promoting healthy eating for an economically disadvantaged Hispanic consumer population. We hope to garner insight in alternative research methods in measuring the effectiveness of such program by sharing our research with the conference participants.

The Role of Regulatory Focus in Medium Maximization

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Recent research on medium maximization found that the individual would maximize the medium and make his/her decisions with some illusions (Hsee, Yu, et al. 2003). However, a recent review revealed that existing research is scant in explaining the underlying mechanism of medium maximization.

Through analyzing the various expressions of medium, we find that there are at least two types of medium: “gain-framed” medium (e.g., consumption reward points, Hsee, Yu, et al. 2003) and “safety-framed” medium (e.g., product attribute specification, Hsee Yang, et al. 2009). Though both types of medium can lead to medium maximization, to our best knowledge, there is no existing research attempting to explain individual differences in medium maximization and responses to differently framed medium. Drawing on Regulatory Focus theory (Higgins 1997), we intend to explore the underlying mechanism of and provide additional perspective on medium maximization. According to abundant previous research findings, different individuals weigh the perceived information differently. For example, individuals with an accessible independent self-view are more persuaded by promotion-focused information that is consistent with an approach goal; in contrast, individuals whose interdependent self-view is more accessible are more persuaded by prevention-focused information that is consistent with an avoidance goal (Aaker and Lee 2001); for promotion-focused adolescents, a promotion-focused positively framed antismoking message is the most effective at persuading them not to smoke; for prevention-focused adolescents, a prevention-focused negatively framed antismoking message is the most effective (Zhao and Pechmann 2007); a person's regulatory focus also determines the salience of self-efficacy (perceived ease) or response efficacy (perceived effectiveness) of health behaviors when self-efficacy features are paired with promotion focus and when response efficacy features are paired with prevention focus (Keller 2006); moreover, the uninvolved research participants rely on their regulatory focus as a filter to process information selectively. Participants pay more attention to and base their product evaluation on product information that is relevant to their regulatory concerns, but only when they are not motivated to process information (Wang and Lee 2006).

Based on these prior research findings, we could easily infer and see the linkage between regulatory focus and medium types. So we have the following two general hypotheses:

H1: Compared with prevention focused individuals, promotion focused individuals would be more likely to be influenced by gain-framed medium and exhibit greater medium maximization.

H2: Compared with promotion focused individuals, prevention focused individuals would be more likely to be influenced by safety-framed medium and exhibit greater medium maximization.

Four experiments were conducted to test the hypotheses. The four studies design used a 2 (regulatory focus: promotion vs. prevention) by 2 (medium: with vs. without) between-subjects factorial. The first two studies tested H1 and studies 3 and 4 tested H2. We primed the participants with either promotion or prevention focus using priming procedures in Higgins, Roney, et al. (1994) and Lockwood, Jordan and Kunda (2002), and then presented the participants with a decision task of choosing one option from two scenarios. The decision task was framed either with medium or without medium.

In study 1, participants were asked to choose a supermarket between two options only differing in distance, promotion gift, and the presence or absence of a “gain-framed” medium (e.g., consumption reward points). In study 2, participant were asked to make a choice between two promotions offered in a department store, differing in the degree of certainty as well as the presence and absence of a “gain-framed” medium (e.g., consumption reward points). In study 3, participants were asked to select a digital camera between two options, differing in attribute familiarity as well as the presence and absence of a “safety-framed” medium (e.g., product attribute specification). In study 4, participants were asked to select an online shop from two options differing in evaluation consistency as well as the presence and absence of a “safety-framed” medium (e.g., number of the people, who gave evaluation,).

Through studies 1 and 2, we find that for promotion-focused subjects, the presence of a “gain-framed” medium can alter what option they choose; for prevention-focused subjects, their choice stays the same. The underlying mechanism can be attributed to that a “gain-framed” medium gives promotion-focused participants the illusions of advantage and certainty respectively in study 1 and study 2. Through studies 3 and 4, we find that for prevention-focused subjects, the presence of a “safety-framed” medium can change their choices; whereas for promotion-focused subjects, there is no significant influence. That is, a “safety-framed” medium gives prevention-focused participants the illusions of familiarity and evaluation consistency respectively in study 3 and study 4.

Through the four well designed experiments, this research contributes greatly to the literature through exploring and demonstrating the moderating role of regulatory focus (prevention focus vs. promotion focus) on two types of medium (gain framed medium vs. safety framed medium). There are also important implications for consumer well-being research and consumer marketing practice.

The Impact of Guilt Messaging on Consumer Emotions and Behavior

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Recently, corporate social responsibility (CSR) revenue donation initiatives, in which the company promises to donate a portion of the purchase price to a charitable cause, have received much attention. Such initiatives invite the customer to be a part of the program by making a purchase, thereby activating the donation. The knowledge that their decision will impact others in need in a very fundamental way may lead to feelings guilt on the part of the consumer (Burnett & Lunsford, 1994).

The opportunity to make a purchase, thereby activating a donation to the less fortunate other party, gives the customer a chance to alleviate their level of guilt. Thus, it follows that the higher the level of experienced guilt, the greater the motivation to make a purchase and activate the donation. However, previous research in persuasion theory has demonstrated the opposite effect. We seek,

in the current study, to extend this line of research to the hospitality context and examine the impact of revenue donation CSR messaging on levels of guilt, other concurrent emotions, customer attitudes, and behavioral intentions. Corporate Social Responsibility (CSR) revenue donation programs differ from other CSR programs in that the company does not act unless the customer activates the donation by making a purchase. This puts the responsibility for helping on the shoulders of the consumer. As the customer has already been made aware of the fact that the others are in need, this circumstance gives rise to feelings of equity guilt (Burnett & Lunsford, 1994).

Most people associate the feeling of guilt with having committed a transgression, but it is possible for guilt to be felt without the commission of any act. Positive inequity, where one is the recipient of benefits that others do not receive, can be sufficient to cause guilt (Baumeister, Stillwell, & Heatherton, 1994). (Schmitt et al., 1989) also found that people feel guilt about the misfortunes of those in other countries. (Burnett & Lunsford, 1994) have specifically noted that purchase/no purchase decisions in a revenue donation situation can cause guilt.

Given this explanation, it stands to reason the CSR messaging, in which the customer is made aware of the misfortunes of others, should result in the experience of guilt on the part of the consumer. Some previous research has demonstrated that ads employing a moderate level of guilt, rather than either a high or low level, were most effective (Coulter & Pinto, 1995; O'Keefe, 2000). Moderately intense guilt appeals aroused the most felt guilt, whereas highly explicit guilt appeals resulted instead in feelings of anger, annoyance, and irritation. We examine this question in a hospitality context using highly explicit and less explicit CSR messaging.

First, we seek to examine the relationship between the level of explicitness of the ad and the level of experienced guilt. Thus, we put forth our first research question:

RQ1: Is there a direct positive relationship between the explicitness of the guilt-inducing CSR message and the level of experienced guilt?

Second, we wish to investigate the relationship between level of experienced guilt and consumer attitudes and behavioral intentions. Hence, our second research question:

RQ2: Is there a direct positive relationship between level of experienced guilt and attitude toward the ad, attitude toward the brand, and intent to purchase?

Third, we are interested to examine what emotions, other than guilt, result from exposure to varying levels of explicitness in guilt appeals. Based on previous research, we will investigate the presence of anger, irritation, annoyance, and resentment (Baumeister, Reis, & Delespaul, 1995a; Coulter & Pinto, 1995; Rubin & Shaffer, 1987). Thus, we put forth our third research question:

RQ3: Is there a direct positive relationship between the level of explicitness of the guilt message and the presence of anger, irritation, annoyance, resentment?

Participants will be recruited using random selection from among the faculty and staff at a large university in the Northeastern United States.

All items will be measured on 7-point Likert scales, using measures adapted from previously validated research wherever possible.

The level of guilt aroused by the advertisement will be measured using the following items adapted from Coulter & Pinto (1995): accountable, guilty, ashamed, bad, irresponsible, uneasy, and upset.

We will measure the presence of concurrent emotions using items adapted from (Batra & Ray, 1986) and (Edell & Burke, 1987). The items were upset, irritated, annoyed, and angry. In addition, we will add one item to test for resentment.

Attitude toward the ad will be measured using items adopted from (MacKenzie, Lutz, & Belch, 1986) and (Madden, Allen, & Twible, 1988). The five items are “interesting,” “good,” “likeable,” “favorable,” and “pleasant.”

Attitudes toward brand will be measured with items adopted from (Mitchell & Olson, 1981) and (Holbrook & Batra, 1987). The five items were “good,” “likable,” “pleasant,” “positive,” and “high quality.”

Intent to Purchase will be measured with a 3-item, purchase intention scale (Yi, 1990). The three items were “likely,” “possible,” and “probable.”

In order to ensure that the subjects perceive the scenarios in the intended way, manipulation checks will be run on the two different scenarios.

Participants will be randomly divided into two groups and presented with a scenario that asks them to picture themselves as a shopper in a coffee shop contemplating a purchase. In the less explicit appeal group, participants will be informed that a portion of the purchase price of their beverage will be donated to assist recipients in Africa to purchase food. In the more explicit appeal, the ad will go on to describe the situation of the recipients brought about by the lack of food, including the consequences. After reading the scenarios, subjects will then answer questions measuring their level of experienced guilt, concurrent emotions, attitudes, and behavioral intentions.

The Effect of Online Social Context on Self-Expression

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The recent surge in popularity of virtual environments opens up new doors for marketers, since such virtual worlds are not built for merely one specific purpose and support a wide range of activities similar to those of the real world. These virtual worlds have become a cyber hangout place for many people wherein they engage in a multitude of activities with no geographic or time constraints. One of the most distinctive features of virtual worlds is that users act in digital form, as avatars. Users can freely design and customize their own avatars to represent their personalities and identities within virtual worlds. Via their avatar form users enjoy a variety of socializing activities in virtual environments such as social network, virtual class, online game, and brand community.

Some social psychologists have suggested that the self-concept is not a unitary and monolithic entity. Markus and Kunda (1986) argued that different selves appear to emerge in different social environments. Prior research recognized the multiple aspects of the self and described the self-concept as a structural product of reflexive activity, but it is also susceptible to change as the individual

experiences new roles, situations, and life transitions. In this sense, the self-concept can be viewed as having a dynamic interpretive structure – as active, forceful, and capable of change (Markus & Wurf, 1987), suggesting that individuals do not always dispose themselves in accord with their stable selves or personality traits. Rather, they change their attitudes or behaviors from situation to situation to express themselves. As suggested by Mischel and Peake (1982), the self should be viewed as more contextual and dynamic, suggesting that the self is a product of specific situations. This conceptualization is helpful in that it enables us simultaneously to integrate the situationally variable and multiple aspects of self-concept (Aaker, 1999). Although the self-concept is viewed as a somewhat stable and enduring perception of the self at any given moment, this stability can be significantly changed or varied when individuals react and respond to a variety of social situations (Markus & Kunda, 1986).

The objective of the present study is to investigate the impact of virtual social contexts on virtual (avatar) self. That is, the present research investigates whether virtual social contexts can prime users to create avatars that emphasize particular characteristics and personality traits that are different from their actual selves. Based on the perspective of the malleable self-concept, the present research predicts that individuals will present different selves from their actual selves across different virtual social contexts.

A total of 202 undergraduate students (156 female, age $M = 20.26$) from a large southeastern university in the U.S. participated in the study in exchange for course credit. The sample consisted of 61.9% Caucasians, 16.3% Hispanics, 10.9% Asian American, and 4.0% African American.

To increase the generalizability of the findings, four unique virtual social environments were selected for the present study: social network, brand community, virtual class, and online game. To successfully prime hypothetical virtual social environments, four different vignettes were developed.

To reduce the possibility of demand effect, actual self-concept was measured three weeks prior to the main experiment. They were asked to complete the Big Five Inventory (44 traits for Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness; John, Donahue, & Kentle, 1991) as well as demographic information. Participants rate each trait on a 5-point Likert scale ranging from “1 = strongly disagree” to “5 = strongly agree”. Reliability estimates were computed for the set of traits to measure each of the five personality dimensions. All alphas ranged between .75 and .87.

Three weeks later, they were invited again. Upon arrival at their scheduled session, they were randomly assigned to one of the four experimental conditions. After reading brief instructions, participants were asked to create an avatar for their designated social contexts. Participants created an avatar by using the “Face Your Manga” Web site (<http://faceyourmanga.com>). After the avatar creation, they were asked to provide some demographic (i.e., age, gender, occupation) and rate the BFI about the avatar they created (i.e., avatar self). When answering the questions, participants’ avatar was still visible onscreen. Reliability estimates were computed for the set of traits to measure each of the five personality dimensions. All alphas ranged between .77 and .87.

For each personality dimension, a single index was formed by averaging across traits. Thus, each participant was given two index scores (for the actual and avatar selves) for each of the Big Five dimensions. The avatar selves in the four virtual social contexts were higher than the actual self across four personality dimensions: Extraversion, Agreeableness, Conscientiousness, and Openness. In contrast, as for Neuroticism, participants rated the avatar self lower than their actual self across the four social contexts. Participants also showed greater variation between the actual and avatar selves on Neuroticism than the other four dimensions.

Next, a 2 (self: actual vs. avatar) \times 4 (social context: social network vs. brand community vs. game vs. virtual class) repeated measures ANOVA was conducted for each of the five personality dimensions. Social context was entered as a between-subjects factor and the self was entered as a within-subjects factor. Unless otherwise specified, the degree of freedom used in the full-design ANOVA were 1, 85. As predicted, a 2 \times 4 ANOVA yielded a significant within-subjects main effect across the five personality dimensions: F_{Extraversion} = 23.98, $p < .001$; F_{Agreeableness} = 27.35, $p < .001$; F_{Conscientiousness} = 10.94, $p < .001$; F_{Neuroticism} = 113.285, $p < .001$; F_{Openness} = 37.97, $p < .001$. The results suggest that the actual self differed significantly from the avatar for all five personality dimensions. However, across the five personality dimensions, no main effect of social context was found ($F_s < 1$). Finally, the situation \times social context was found to be significant on Extraversion only, $F(3, 198) = 2.94$, $p < .05$. Individuals in the social network ($p < .001$) and brand community ($p < .01$) showed significant differences between the actual and avatar selves whereas subjects in the virtual class ($p < .07$) and online game conditions ($p = .71$) didn't show no differences.

Over the last two decades, there has been a steady stream of research suggesting that the self structure is an active one and is a multiplicity of identities (e.g., Aaker, 1999; Markus & Kunda, 1986). The goal of the present study was to test the impact of online social contexts on the expression of self through one's avatar. The results suggested that regardless of online social contexts, consumers tend to express different avatar selves from their actual selves. Theoretically, the findings of the present study provide support for the conceptualization of the self as malleable (dynamic). The primary reason for the relatively limited consensus on and support for self congruity in consumer research in the past five decades was that self-concept was conceptualized as an invariant construct across situations (Aaker 1999; Sirgy 1982). As noted by Belk (1974), circumstances, contexts, or situations are primary reasons for unpredicted consumer behaviors. Consistent with Markus and Kunda (1986), though consumers' self-concepts tend to play an important role in consumer behaviors, exceptions can exist. That is, dependent upon the social situations and surroundings, consumers tend to express different selves. By conceptualizing the self as dynamic (or malleable), the current research integrates the multiple aspects of selves. Finally, the present study also provides managerial implications for marketers who want to interact with their consumers in a variety of online social venues. The findings suggest that advertising and marketing practitioners should utilize situational and online social context factors when developing virtual marketing strategies (Hemp, 2006). Such factors should be considered to increase brand preferences (e.g., avatar self-brand personality congruity) and persuasion.

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The Effects of Negative Opinion on the Evaluation of Brands

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It seems to be getting more and more important to understand consumers' attitude and build "strong" brand for every company, because there are a lot of unreliable rumors about products on the Internet these days. The purpose of this study is to explore the structure of attitude toward brands which are resistant to negative opinions. Edwards (1990) and Fabrigar & Petty (1999) suggested that the attitudes could be divided into two parts; cognition-based attitude and emotion-based attitude. According to their theory, the author proposed that the brand attitude of consumers also could be divided into two parts; cognition-based ones (e.g. useful, reasonable, high-quality) and emotion-based ones (e.g. pretty, cool, fashionable).

The author furthermore suggested that emotion-based attitudes could be better resistant towards others' negative opinions than cognition-based attitudes. This is because emotion is subjective and based on the personal experience. If you feel Brand A's watches are so pretty, nobody can't refute it. On the other hand, cognition-based attitudes are objective and based on fact. Even if you think

Brand A's clothes are high-quality, someone could change your opinions by showing you the fact that they are made with poor quality materials.

Therefore, the hypotheses of this research were as follows;

H1: The consumers' attitudes to brands could be divided into two parts, cognition-based ones and emotion-based ones.

H2: When consumers see negative opinions about a product, the cognition-based attitude toward the brand could be changed negatively more easily than the emotion-based attitude could.

The attitudes toward various brands were measured, the author asking 1000 respondents to fill in the scales of brand attitude. The product categories of brands which were used in the survey were as follows; PCs (e.g. Sony, Apple, Dell), sports shoes (e.g. Nike, Adidas, Mizuno), watches (e.g. Rolex, Seiko, Cartier), cars (e.g. Mercedes-Benz, Toyota, BMW), clothes(e.g. Louis Vuitton, Uniqlo, Issey Miyake), and electronics(e.g. Toshiba, National, Sharp).The results of factor analysis revealed that the consumers' attitudes toward all brands could be divided into cognition-based ones and emotion-based one, supporting H1.

The experiment was conducted to verify H2. In this study, the 5 brands of sports shoes (Nike, Adidas, Asics, Mizuno, Prada) were used because they were familiar to the participants of the experiment which were all university students. The participants were told to read the negative opinions about a brand of sports shoes on the Internet out of 5 brands. These bad opinions of the 5 brands were all "made-up" by the author. The brand attitudes after reading them were measured with the same scales as Study1. The results supported H2; cognition-based attitudes became worse, but emotion-based attitude were little deteriorated.

For this research, two studies were conducted to explore the structure of brand attitudes which is resistant toward the negative opinions. Study1 showed that the brand attitudes could be divided into two parts; cognition-based ones and emotion-based ones. Then Study2 verified that emotion-based attitudes were resistant to the bad opinions, and cognition-based attitudes were deteriorated easily. Both hypotheses were supported.

This research could suggest to all companies that it would be better to pay much more attention to providing emotional value to their customers than quality information in brand management.

Counter Factual Thinking and Consumers' Preference for Product Desirability and Feasibility

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Counterfactual thinking (CFT) is the process of looking back at events and thinking how things could have turned out differently. For example, imagine that an individual find her plasma TV needs repair just after the warranty expires. The individual may think to herself: "If only I had purchased a TV with an extended warranty, I would not have to incur so much cost on this repair." CFT is common in consumers' life. It can be triggered by either positive or negative purchase or consumption events and experiences. Psychologists have investigated some of the potential consequences of counterfactual thinking, including attributions of blame and responsibility (Wells and Gavanski 1989), dissonance reduction (Gilovich, Medvec, and Chen 1995), and regret and satisfaction (Gilovich and Medvec 1995a, 1995b).

Other research has been conducted to understand how CFT impacts individuals' behavior. Much research has focused on the relationship between CFT and individuals' emotional experiences (e.g., Zeelenberg et al. 1998), yet little is known about how CFT might influence individuals' subsequent information processing. Prior research in the area has shown that CFT could subsequently lead to in-depth processing of information (Krishnamurthy and Sivaraman 2002).

In this research, we seek to study how consumer CFT would cause consumers to evaluate product attributes differently in decision making. We propose that CFT can influence individuals' information processing by directing individuals' attention to the processes or sequences (vs., the outcomes per se) aspect of their choices and behavior and causes individuals to value process-related more than outcome-related product information. Our rationale is that CFT involves mentally mutating a past event by re-running the sequence of the event and also simulating the necessary alternative steps or procedures needed to alter what has happened. In this way, CFT may activate a process-focused (vs. outcome-focused) information processing mentality and sensitize individuals to procedural information. Product desirability and feasibility are two prominent considerations of consumer choices and many times consumer decision making involves a trade-off between these two product attributes (Zhao, et. al. 2007). For example, consider a college student who is shopping for a MP3 player to record in-person interviews to fulfill a course requirement. The student often needs to make a trade-off between the recording quality (i.e., desirability) and the ease of operation (i.e., feasibility) since in general high quality of recording requires more preparation and operation work (e.g., plug-in microphone, quality specification, etc.).

Desirability pertains to the value of an action's end state and reflects the superordinate "why" aspects of an action, whereas feasibility pertains to the ease or difficulty of the means to reach the end state and reflects the subordinate "how" aspects of an action (Vallacher and Wegner 1987). In consumer purchase decisions, product desirability considerations are about the benefits and features of the product; whereas product feasibility considerations are about how to obtain and use the product. In other words, product desirability involves outcome-focus thoughts while product feasibility involves process-focused thoughts.

Imaginably, consumers' trade-off between product desirability and feasibility is influenced by various factors. We focus on how consumer CFT might influence their trade-off between the two product attributes. Specifically, we study how consumer CFT activated with reflecting on a negative product experience might prime certain information processing mentality, which will subsequently impact consumers' processing of product information in a unrelated purchase event.

As discussed earlier, CFT can activate a process-focused (vs. outcome-focused) information processing mentality and sensitize individuals to procedural information, we would expect that, after going through CFT process on a negative product experience, consumers would focus on the process of using a product (i.e., feasibility) and consequently value more of product feasibility; whereas, for consumers who have not gone through a CFT process on a negative product experience, they would focus more on the end states (e.g., positive outcomes) of product use (i.e., desirability) in the next purchase. Thus, we hypothesize that consumers' preference for product desirability and feasibility in decision making would be moderated by the presence of CFT (control vs. CFT). Specifically, (a) product feasibility will be more appealing to consumers who have gone through CFT, as opposed to those who have not; (b) product desirability will be more appealing to consumers who do not engage in CFT, as opposed to those who engage in CFT.

An experimental study provided preliminary evidence supporting our hypothesis. In study 1, participants were randomly assigned to either a control condition or a CFT group. Participants in the CFT group were instructed to engage in CFT with a standard procedure borrowed from the literature. Then, all the participants completed the Behavior Identification Form (BIF). The BIF (Vallacher & Wegner, 1989), a 25-item, dichotomous-response questionnaire, assesses individual differences in level of action identification. For each item, participants read about an action (e.g., "voting") and circled which of two identifications more appropriately described it.

The choices corresponded to desirability (or abstract) identifications (e.g., “influencing the election”) and feasibility (or concrete) identifications (e.g., “marking a ballot”). Feasibility identifications were scored 1, desirability identifications were scored 0, and each participant’s responses were averaged to provide a BIF index. The higher the index, the higher the participants value of feasibility. A one-way ANOVA revealed a significant higher BIF index score of the CFT group than the control group. That is, CFT leads individuals to focus more on feasibility in their behavior identification.

In an ongoing study 2, we conducted a 2 (CFT vs. control) x 2 (high desirability and low feasibility product vs. low desirability and high feasibility product) between subject factorial design to study the impact of CFT on consumer product choice (e.g. MP3 player). In study 3, we would further explore the role of CFT on consumer information processing by using a downward CFT procedure (i.e., “how could things be worse?”) rather than an upward CFT procedure (i.e., “how could things be better?”) used in study 1 and study 2. This will help us rule out the alternative explanation that it is the direction of CFT (upward vs. downward) rather than the CFT per se that is responsible for the effects.

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