

# SCP 2006

Feb 9 – 13

Checking in 11 AM- 2:30 PM (departure 4PM), Arrival 9 AM



*The Society for Consumer Psychology is happy to introduce an experiment on the influences of conference environment on attendance, learning, creativity, and retention.*

## **President**

Durairaj Maheswaran, New York University

## **Conference Chairs**

Dan Ariely, MIT

Baba Shiv, Stanford University

Michal Strahilevitz, University of Arizona

This year's Society of Consumer Psychology Conference is dedicated to Gustavo de Mello, who was tragically killed in a hit and run accident on February 10, 2005. Gustavo de Mello was a 5th year Ph.D. student at the University of Southern California. He had accepted a position as an Assistant Professor at the Tuck School at Dartmouth that he was to begin in the Fall of 2005. His dissertation research won an award as the Best Dissertation Paper by the Society for Consumer Psychology. As a doctoral student, Gustavo, a native of Uruguay, published in the Journal of Marketing, the Journal of Consumer Research, and the International Journal of Internet Research and Marketing. Gustavo was not only a remarkably creative and skilled researcher. He was also an amazingly generous and truly cherished friend to many in the field. His enormous heart, magical talent, sparkling personality, incredible sense of humor, and the love he had for his family, friends, research, the outdoors, music, sports, animals, art films and life made him a truly unforgettable person. Those who knew him will never forget him.

# Notes

## **Notes for presenters:**

To guarantee the smooth proceeding of the sessions, and the success of the SCP conference, we need your help! Please follow the following guidelines:

### Last presenter in each session:

1. Please come early and make sure there is a laptop in the room and set it up.
2. You are assigned to be in charge of the time, including alerting people when the time is over and managing the time for questions.

### All Presenters:

1. Please come early to your session and bring your presentation on a USB "flash" drive.
2. Please follow the instructions of the person in charge of time!
3. Please plan for a talk that is less than 15-minutes long.

### Working Paper Presenters:

1. Please bring a flip-chart for your "slide-show" (presentations will be in AMA style). The flip-charts are available at office-supply stores (<http://www.staples.com/webapp/wcs/stores/servlet/StaplesProductDisplay?storeId=10001&catalogId=10051&langId=-1&productId=100141&cmArea=SEARCH>, for example)
2. Please bring extra copies of your slides (notes options in powerpoint, 2-4) to hand out to those interested in your research.
3. It is best to prepare a 3-5-minute presentation and be prepared for questions or going more in depth for people who are particularly interested.

## **Session locations**

The sessions will be at

A – Thursday, February 9: The Dynasty Lounge (6pm-7pm)

B – Friday, February 10: Shangri La lounge (1:00 to 2:25)

Card Room, Mirage Bar, and Shangri La lounge (2:30 to 6:30 pm)

C – Saturday, February 11: Card Room, Mirage Bar, and Illusions Dance Club (8am to 12 noon)

D – Sunday, February 12: Spirit Dining Room (8:30am to 12:25; 1:30pm to 4:05 pm)

Cocktail hour with working paper session: Disco bar (5pm to 6:30pm)  
Farewell Dinner: Spirit Dining Room (8pm)

For more information about the cruise, hotel suggestions and the like,  
please write to [SCPcruise@yahoo.com](mailto:SCPcruise@yahoo.com) or visit:  
<http://www.carnival.com/CMS/FAQs/FAQLanding.aspx>

# Overview

## Thursday, February 9<sup>th</sup>

11am-2:30pm – Checking in

4pm – Cruise leaves Miami

6pm-7pm – Welcome Reception, Dynasty Lounge

- Opening remarks by one of the co-chairs
- State of the Society Address by Larry Compeau
- Announcement of awards (Best Dissertation and

honorable mentions, Best Paper and honorable mention, Distinguished Scientific Contribution Award, etc.)

Dissertation/Best Paper Award winners and honorable mentionees have the option of presenting their work in the working paper session on Sunday, February 12.

- Presidential address (Durairaj Maheswaran)

Dinner: Reservation for our group is at 8pm in the Pride/Spirit dining rooms (formal dining; attendees have the option trying their luck for an earlier slot or having a buffet dinner on the Lido deck)

9:30pm - Post-dinner activities (TBA)

## Friday, February 10<sup>th</sup>

(Card Room, Mirage Bar, and Shangri La lounge)

7:30am – 1:00pm: Optional on shore @ Key West

1:00pm-1:40: Shangri La Lounge

Frank Kardes, the winner of the Distinguished Scientific Contribution Award

1:45pm-2:25pm: Shangri La Lounge

Roy Baumeister, Invited Plenary Speaker.

2:30pm – 3:45pm: Session 1 (3 concurrent special sessions)

3:50pm – 5:05pm: Session 2 (3 concurrent special sessions)

5:15pm – 6:30pm: Session 3 (3 concurrent competitive paper sessions)

Dinner: Reservation for our group is at 8pm in the Pride/Spirit dining rooms (formal dining; attendees have the option trying their luck for an earlier slot or having a buffet dinner on the Lido deck)

9:30pm - Post-dinner activities (TBA)

## Saturday, February 11<sup>th</sup>

(Card Room, Mirage Bar, and Illusions Dance Club)

8:00am – 9:15am: Session 4 (3 concurrent competitive paper sessions)

9:20am – 10:35am: Session 5 (3 concurrent special sessions)

10:45am – 12:00noon: Session 6 (3 concurrent competitive paper sessions)

12:00pm – 10:00pm: Optional on-shore in Mexico

### **Sunday, February 12<sup>th</sup>**

(All sessions will be in the Spirit Dining Room)

8:30am – 9:45am: Session 7 (3 concurrent competitive paper sessions)

9:50am – 11:05am: Session 8 (3 concurrent special sessions)

11:10am – 12:10pm: Session 9 (3, 1-hour concurrent special sessions – no discussants)

12:10pm – 1:30pm: Buffet Lunch at the Lido deck

1:30pm – 2:45pm: Session 10 (3 concurrent sessions; 1 special sessions and 2 competitive paper session)

2:50pm – 4:05pm: Session 11 (2 concurrent competitive paper Sessions)

5:00pm – 6:30pm: Cocktail hour in the Disco Bar (cash bar only) & Working Paper Session – AMA format

8:00pm Farewell dinner – Spirit Dining Room

# The program

**FRIDAY, FEB 10<sup>th</sup>**

**Friday, February 10<sup>th</sup>**

**2:30pm – 3:45pm: Session 1 (Special Sessions)**

**Session 1A (Card Room)**

**Corporate Social Responsibility**

*Chair: Maheswaran Durairaj, New York University*

*Discussant: Prashant Malaviya, Insead*

The Effect of Corporate Involvement on Consumer Reactions to Non-profits

*Sankar Sen, Baruch College,*

*C.B. Bhattacharya, Boston University,*

*Caglar Irmak, Baruch College*

The Effects of Corporate Social Responsibility and Price Fairness on Maximum Willingness-to-Pay

*Aronte Bennett, New York University,*

*Durairaj Maheswaran, New York University*

Understanding Low Literature Consumers: Implications for Corporate Social Responsibility

*Madhu Viswanathan, University of Illinois, Urbana-Champaign,*

*Avinish Chaturvedi, University of Illinois, Urbana Champaign,*

*Roland Gau, University of Illinois, Urbana Champaign*

**Session 1B (Mirage Bar)**

**Psycholinguistic Phenomena in Marketing Communications**

*Chair: Escalas Jennifer, Vanderbilt University*

*Discussant: Laura Peracchio, University of Wisconsin, Milwaukee*

Narrative Structure: Plot and Emotional Responses

*Jennifer Edson Escalas, Vanderbilt University*

*Barbara B. Stern, Rutgers University*



Language Matters or a Matter of Languages? Marketing in Multilingual Environments

*Ryall Carroll, Baruch College*

*David Luna, Baruch College*

*Laura Peracchio, University of Wisconsin, Milwaukee*

[Relationship between Literacy and Cognitive Characteristics Relating to Categorization](#)

*Torelli Carlos, University of Illinois at Urbana-Champaign*

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

*Lalwani Ashok K., University of Illinois at Urbana-Champaign*

[Session 1C \(Shanri La Lounge\)](#)

**The Effect of Others on Judgments and Feelings about Products and Experiences**

*Chair: Ramanathan Suresh, University of Chicago*

*Discussant: No discussant*

I See, I Do, I Like: The Consequences of Behavioral Mimicry for Attitudes.

*Rosellina Ferraro, University of Maryland*

*James Bettman, Duke University*

*Tanya Chartrand, Duke University*

Is Happiness Shared Doubled and Sadness Shared Halved? Social Influence on Enjoyment of Hedonic Experiences

*Rajagopal Raghunathan, University of Texas, Austin*

*Kim Corfman, New York University*

Consuming With Others: Social Influences on Moment-to-Moment and Retrospective Evaluations of an Experience

*Suresh Ramanathan, University of Chicago*

*Ann L. McGill, University of Chicago*

[Consumer Contamination: How Consumers React to Products Touched by Others](#)

*Argo Jennifer, University of Alberta*

*Darren W. Dahl, University of British Columbia*

*Andrea C. Morales, Arizona State University*

### **3:50pm – 5:05pm: Session 2 (Special Sessions)**

#### **Session 2A (Card Room)**

##### **Beyond Fit : Emotional, Attitudinal and Cognitive Style Influences of Brand Extension and Merger Evaluations**

*Chairs: Thozhur Anil, Columbia University; Pragma Mathur,, New York University*

*Discussant : Laura Peracchio, University of Wisconsin at Milwaukee*

The Impact of Cultural Cognitive Style and Brand Extension Information on Brand Extension Evaluation

*Pragma Mathur, New York University,  
Durairaj Maheswaran, New York University,  
Nidhi Agarwal, Northwestern*

Fitting in with the Family: The Effect of Emotional Attachment on Consumer Responses to Brand Extensions.

*Alexander (Sasha) Fedorikhin, Indiana University,  
C W Park, University of Southern California,  
Matt Thomson, Queens University*

Fit to be Tied? Perceptual and Attitudinal Consequences of Merging Brands

*Andrew Gershoff, University of Michigan,  
Don Lehmann, Columbia University,  
Anil Thozhur, Columbia University*

#### **Session 2B (Mirage Bar)**

##### **The Pitfalls of Price-Quality Trade-Offs: Forecasting Errors, Self-Fulfilling Prophecies, and Malleable Preferences**

*Chair: Meyvis Tom, New York University*

*Discussant: Kristin Diehl, University of Southern California*

The Persuasive Power of Quality: Consumers' Misprediction of their Reactions to Price Promotions,

*Tom Meyvis, New York University  
Cenk Bülbül, New York University*

Placebo Effects of Marketing Actions

*Baba Shiv, Stanford University  
Ziv Carmon, INSEAD  
Dan Ariely, Massachusetts Institute of Technology*

The Psychology of Versioning: Marginal Costs and Counterfactual Thinking as Determinants of Fairness Perceptions and Choice  
*Andrew D. Gershoff, University of Michigan*  
*Ran Kivetz, Columbia University*  
*Anat Keinan Columbia University*

### [Session 2C \(Shangri La Lounge\)](#)

#### **Guilt, Guilt, Guilt! Giving, Shopping, Indulging & Deciding**

*Chairs: Fogel Sue, DePaul University and Strahilevitz Michal, University of Arizona*

*Discussant: No Discussant*

Why Would Anyone Feel Guilty for Giving a Homeless Guy Nineteen Dollars?: Good Deeds, Bad Deeds, and Take-Aversion  
*Michal Strahilevitz, University of Arizona*

Consumer Guilt and Marketplace Responses: "Guilt-Free" Shopping  
*Suzanne O'Curry Fogel, DePaul University*

Do We Really Need a Reason to Indulge?  
*Jing Xu, University of Michigan*  
*Norbert Schwarz, University of Michigan*

#### [The Mediating Role of Anticipated Guilt in Ethical Decision Making](#)

*Steenhaut Sarah, Ghent University*  
*Patrick Van Kenhove, Ghent University*

### **5:15pm – 6:30pm: Session 3 (Competitive Paper Sessions)**

#### **Session 3A (Card Room)**

#### **Issues Related to Branding I**

#### [The Effect of Brand Personality - Self-Concept Congruence on Brand-Related Consumer Responses](#)

*Grohmann Bianca, Concordia University*

#### [The Consumer-Firm Bond: An Existential-Phenomenological Description of the Nature of the Consumer-Firm Bonding Process](#)

*Walls Simon, Fort Lewis College*  
*David W. Schumann, University of Tennessee*  
*Daniel J. Flint, University of Tennessee*

[Effect of Brand Associations on Consumers' Attitude and Perceived Value](#)

*Samu Sridhar, Sivaramakrishnan Subbu, University of Manitoba*

[Driving Inferences for an Umbrella Brand Using Claims Involving Narrow versus Diverse Product Samples](#)

*Chakravarti Arjun, Hastie Reid, Chicago GSB*

**Session 3B (Mirage Bar)**

**"I Love Thee, I Hate Thee": Consumer Reactions to the Positive and Negative Aspects of Marketing**

[Interpreting Strategic Delay in Consumer Negotiations: \(Un\)trustworthy Behaviors and \(Un\)trustworthy Faces](#)

*Bagchi Rajesh, Chakravarti Dipankar, University of Colorado, Boulder*

[That's the Last Time I Will Do Business Here: The Negativity of Consumer Responses to Rejection](#)

*Main Kelley J., York University  
Ashworth Laurence, Queen's University*

[Attraction, Repulsion, and Attribute Representation](#)

*Frederick Shane, Lee Leonard, MIT*

[The Impact of Price Display Size on Processing and Evaluation of Comparative Price Advertisements](#)

*Vaidyanathan Rajiv, Aggarwal Praveen, University of Minnesota Duluth*

**Session 3C (Shangri La Lounge)**

**Framing and Temporal Effects in Consumer Decision-Making**

[Temporal Framing of Progress in an Extended Consumer Compliance Task](#)

*Levin Irwin, Schreiber Judy, Gaeth Gary J., University of Iowa*

[The Attenuating Influence of Elaboration on Potential Outcomes on Information Framing Effects](#)

*Yordanova Gergana, Inman J. Jeffrey, Hulland John, Morrin Maureen, University of Pittsburgh*

["In Four Months" versus "On June 11": The Impact of Time-Interval Description on Discounting and Time Perception](#)

*LeBoeuf Robyn, University of Florida*

[A Query Theory Account of Asymmetries in Time Discounting](#)

*Chang Hannah, Milch Kerry, Weber Elke, Brodscholl Jeff, Johnson Eric,  
Columbia University; Goldstein Dan, London Business School*

**FRIDAY, FEB 10: SESSION ABSTRACTS/PAPERS**

**SESSION 1 (Special Sessions): FRIDAY, FEBRUARY 10<sup>th</sup>,  
2:30pm-3:45pm**

**Session 1A (Card Room)**

**Corporate Social Responsibility**

*Chair: Maheswaran Durairaj, New York University*

*Discussant: Prashant Malaviya, Insead*

The Effect of Corporate Involvement on Consumer Reactions to Non-profits

*Sankar Sen, Baruch College,*

*C.B. Bhattacharya, Boston University,*

*Caglar Irmak, Baruch College*

The Effects of Corporate Social Responsibility and Price Fairness on Maximum Willingness-to-Pay

*Aronte Bennett, New York University,*

*Durairaj Maheswaran, New York University*

Understanding Low Literature Consumers: Implications for Corporate Social Responsibility

*Madhu Viswanathan, University of Illinois, Urbana-Champaign,*

*Avinish Chaturvedi, University of Illinois, Urbana Champaign,*

*Roland Gau, University of Illinois, Urbana Champaign*

Today, more companies than ever before are supporting corporate social responsibility (CSR) initiatives such as corporate philanthropy, cause-related marketing, minority support programs and socially responsible employment and manufacturing practices, with increasing financial and marketing resources. The websites of more than 80% of the Fortune-500 companies address CSR issues, reflecting the pervasive belief among business leaders that CSR is not only an ethical imperative but also an economic one in today's national, as well as global, marketplace. In making CSR contributions, companies often partner with or sponsor one or more nonprofit organizations that work on issues/causes the companies are interested in supporting.

However, while much is known today about the effects of a company's involvement in various CSR domains on consumers' attitudes towards the company and their willingness to buy its products (e.g. Brown and Dacin 1997, Sen and Bhattacharya 2001), little is understood about the effect of such involvement on consumers' reactions to the partnering non-profit or the impact that such involvement has on consumers' willingness-to-pay for products/services. Moreover, very little is known about CSR's potential to benefit previously overlooked consumer segments by integrating them into the marketplace.

This session is intended to build on existing literature in the field of corporate social responsibility and advance our understanding of the multi-dimensional influence of CSR. Specifically, we examine the impact that CSR has on three groups of stakeholders: non-profit organizations, corporations and consumers.

The Sen, Bhattacharya, and Imark paper offers an innovative examination of the effects of a company's involvement with a non-profit organization through CSR on



consumers' reactions to, and more specifically, willingness to support, non-profit institutions. The authors manipulated characteristics of the relationship between a company and the non-profit it sponsors and examined the impact of this relationship on respondent attitudes toward the non-profit and the company, willingness to support the non-profit and causal attributions about the company's support for the non-profit. They find a positive effect of a company's involvement with a non-profit on consumer response to the non-profit, under certain conditions of company involvement, fit and reputation.

The second paper, by Bennett and Maheswaran, presents three studies that investigate the impact a company's involvement in CSR has in determining the maximum amount consumers are willing to pay for its products/services. They explore the mediating role of price-fairness and the moderating roles of fit and consumer motivation. Their results show that consumers' increased maximum willingness-to-pay for companies that engage in CSR is generated through increased perceptions of price-fairness for those companies. This relationship is shown to vary under particular fit and motivation conditions.

Providing a fitting complement for the other two papers, the paper by Viswanathan, Chaturvedi and Gau explores the potential benefits of increased CSR activities toward a specific population segment, low literate consumers. Based on findings from their previous research on low literate populations, the authors use information on the existing consumer and corporate environments to serve as the basis for a discussion of issues in CSR. They present a series of examples from industry, both domestic and international, to illustrate their conceptualization.

It is our belief that SCP members will find a special topic session on corporate social responsibility both intellectually stimulating and relevant. Theoretically, this session, will provide an understanding of whether, how and why a company's CSR activities can affect reactions to its non-profit partners, evaluations of its prices as well as the welfare of particular consumer segments. Insights from these projects could provide guidelines for companies to better assess the true impact of their CSR efforts, as well as aid non-profits in selecting optimal corporate partners. Specifically, this session will enhance our understanding of consumer response to prices and the importance of low literate consumers in the market place.

## REFERENCES

- Sen, Sankar and C.B. Bhattacharya (2001), "Does Doing Good Always Lead to Doing Better? Consumer Reactions to Corporate Social Responsibility," *Journal of Marketing Research*, 38 (May), 225-243
- Brown, Tom J. and Peter A. Dacin (1997), "The Company and the Product: Corporate Associations and Consumer Product Responses," *Journal of Marketing*, 61 (January), 68-84

## **The Effect of Corporate Involvement on Consumer Reactions to Non-profits**

Sankar Sen  
Baruch College  
C. B. Bhattacharya  
Boston University  
Caglar Irmak  
Baruch College

Prior research suggests that consumers' generally positive reactions to a company's CSR activities not only depend on a variety of company-specific and consumer-specific factors but are also driven, at least in part, by their perceived relationship with the company. This paper draws on this contingent picture of consumer reactions to CSR to examine the effects of a company's involvement with a non-profit organization on consumers' reactions to, and more specifically, willingness to support, the non-profit. In our first experimental study involving a non-profit organization focused on AIDS prevention and care, we examine the effects of a corporate sponsor's (i) level of involvement (ii) perceptual "fit" with the non-profit and (iii) reputation on respondents' (a) attitude toward the non-profit, (b) willingness to support the non-profit, in terms of both monetary donations and volunteer work with the organization, (c) attitude toward the company, and (d) causal attributions about the company's support of the non-profit. We also examine the moderating effect of respondents' beliefs about the relationship between companies' CSR efforts and their ability to make high quality products, and the mediating effect of consumers' identification with the sponsoring organization. In line with our expectations, we find that a company's involvement with a non-profit has a positive effect on both consumers' attitudes towards and their willingness to support a non-profit, but only under certain company involvement, fit and reputation conditions.

A second study attempts to enhance the external validity of the study 1 findings by examining consumers' actual donations to a focal nonprofit and obtain greater insight into the mechanisms underlying consumer reactions to corporate-nonprofit partnerships through the examination of key moderators. The basic expectation is that the company's reputation, involvement and company-cause fit are likely to affect consumers' attributions regarding company involvement and these in turn are likely to influence their reactions to the non-profit. The data analysis for this study is currently under way and will be completed for presentation at the conference.

## **The Effects of Corporate Social Responsibility and Price Fairness on Maximum Willingness-to-Pay**

Aronte Bennett  
New York University  
Durairaj Maheswaran  
New York University

Three studies examine the positive relationship between corporate social responsibility (CSR) and price tolerance. The first study investigates how consumer perceptions of the level of a company's involvement in CSR activities (either high or low) influences perceptions of price fairness and maximum willingness-to-pay for products sold by the company. Results suggest that consumers view prices from firms that engage in CSR as being fairer and therefore, exhibit greater maximum willingness-to-pay for these firms' products.

The second study explores the role of congruency between a company's product and the social cause it supports on consumers' maximum willingness-to-pay for products of the company. Consumers reported higher maximum willingness-to-pay when a corporation supported a congruent cause (pet food and a foundation that supports pets) in its CSR efforts than when it supported an incongruent cause (pet food and a foundation that supports the rain forest).

The final study examines the role of motivated reasoning on the CSR and maximum willingness-to-pay relationship. This study suggests that participants, under accuracy or defense motives, show asymmetric patterns of response. For those with accuracy motives the maximum willingness-to-pay did not vary as a function of CSR. However, for defense motivated individuals, higher levels of CSR engendered increased levels of willingness to pay.

In general, this research demonstrates the importance of CSR and suggests that social responsibility may lead to better financial performance of corporations.

## **Understanding Low Literate Consumers: Implications for Corporate Social Responsibility**

Madhu Viswanathan  
University of Illinois, Urbana-Champaign  
Avinish Chaturvedi  
University of Illinois, Urbana-Champaign  
Roland Gau  
University of Illinois, Urbana-Champaign

McWilliams and Siegel (2001) define corporate social responsibility as actions that appear to further some social good, beyond the interests of the firm and that which is required by the law. Research evidence suggests that a corporation's socially responsible behavior can positively affect consumer's attitudes toward the corporation (Lichtenstein et al., 2004). This relationship could be accentuated in the case of low-literate consumers.

In the course of our research in the low literate populations and their marketplace interactions there have been a number of disturbing findings. On the consumer side, there is often a misconception of many basic concepts like unit price, package size, and package claims. Additionally, there have been observed instances of low self-esteem and other negative emotions associated with the need to interact in the marketplace. On the corporate side, there has been evidence of negative perceptions of the low literate population in the marketplace that are characterized by the treatment of these consumers as being those who are merely to be tolerated, rather than to be actively served, potentially costing corporations long-term relationships with consumers in this population. The combination of the consumer and corporate environments suggest that a greater level of corporate responsibility towards this population will be beneficial for all parties involved.



This presentation will provide an overview of recent research on low-literate consumers. A number of phenomena of interest in consumer psychology will be covered using data from qualitative interviews, observations, and experiments. Issues covered will include cognitive predilections, decision-making, memory, categorization, and coping strategies used by low literate consumers. This research will be used as background to discuss a number of issues in corporate social responsibility as well as its interplay with good marketing and business practices. Specific examples from practice will be used to illustrate issues. Corporate social responsibility in the realm of low literate consumers in the global marketplace will also be discussed.

McWilliams Abigail and Donald Siegel (2001) "Corporate Social Responsibility: A Theory of the Firm Perspective", *Academy of Management Review*, Vol. 26, No. 1, 117-127.

Lichtenstein Donald, Drumwright Minette, and Braig M. Bridgette (2004), "The Effect of Corporate Social Responsibility on Customer Donations to Corporate Supported Nonprofits", *Journal of Marketing*, (October).

## **Session 1B (Mirage Bar)**

### **Psycholinguistic Phenomena in Marketing Communications**

*Chair: Escalas Jennifer, Vanderbilt University*

*Discussant: Laura Peracchio, University of Wisconsin, Milwaukee*

Narrative Structure: Plot and Emotional Responses

*Jennifer Edson Escalas, Vanderbilt University*

*Barbara B. Stern, Rutgers University*

Language Matters or a Matter of Languages? Marketing in Multilingual Environments

*Ryall Carroll, Baruch College*

*David Luna, Baruch College*

*Laura Peracchio, University of Wisconsin, Milwaukee*

In this session, three authors will present their papers, which will appear as chapters in a forthcoming book entitled *Psycholinguistic Phenomena in Marketing Communications*, edited by Tina Lowrey, Associate Professor of Marketing at the University of Texas, San Antonio. The application of psycholinguistic theory to advertising and marketing communications was fairly popular in the 1980's, but primarily due to complicated methodological issues, interest in this area waned for some time. However, in recent years, the study of psycholinguistic phenomena in a variety of marketing communications has become a more prominent topic in the field of consumer behavior. Due to this resurgence of interest (and the fact that no book on this topic exists), it seems valuable to offer a volume that brings together the various research in this area that is being conducted by current scholars, and also to include a special topic session based on such a book at the Society for Consumer Psychology conference.

This session is designed to demonstrate the diversity of the field, both in terms of relevant topics, but also in terms of methodological approaches. Papers include both empirical and conceptual treatments, and are organized along a continuum of unit of measurement. The smallest unit of linguistic measurement is the brand name, including investigations of phonetic symbolism and semantics. The largest unit of measurement is entire narratives and discourse, which our session looks at by including investigations of the role of emotion in advertising narratives and dual language processing. It is hoped that this session will provide a broad overview of current research that applies psycholinguistic theory to the study of marketing communications to those interested in doing research in this area as well as foster discussion of these research topics.

The three papers included in this special session focus on the impact of words, their sounds and meanings; stringing sentences together, that is, text and narrative analyses; and the broader experience of multilingual processing. First, Shi Zhang will present his chapter, “Behavioral / Psychological Return on Marketing: Consumers' Brand Name Cognition.” In this research, the author provides some laboratory evidence for the impact of marketing efforts by showing that brands form a distinct class of concept words, compared to other classes of concept items in our mental lexicon (e.g., nouns, proper names, non-words). Using the hemispheric processing approach, this paper finds that consumers respond to existing brand names differently in terms of response time, accuracy, and memory relative to various control lexical items. The research shows brands to possibly have an independent neuro-psychological status and suggests to marketers that advertising and communications about brands can leave "unique brand marks" in consumers' brains and cognition.

Next, Jennifer Edson Escalas will present her chapter, co-authored with Barbara B. Stern, entitled “Narrative Structure: Plot and Emotional Responses.” This paper explores the role of narratives in creating and interpreting emotions. By extension, advertising narratives, that is, ads that tell stories, should be well-suited for evoking emotional responses. This chapter reviews an experiment that finds that ad story quality has a positive effect on the emotional responses desired by advertisers (warm and upbeat feelings). These effects are mediated by sympathy, where an observer is conscious of another's feelings, and empathy, where the participant vicariously merges with another's feelings. The empathy response is stronger, consistent with the higher degree of absorption in the ad story for empathy compared to sympathy.

Finally, Ryall Carroll will present his paper, co-authored with David Luna and our discussant, Laura Peracchio, entitled “Language Matters or a Matter of Languages? Marketing in Multilingual Environments.” This paper explores the phenomena of bilingual processing. Most of the world’s population speaks more than one language. In the U.S., for example, over 42% of the children ages five to 17 in the state of California are bilingual. Therefore, it is essential to further develop our knowledge of dual language processing of advertising. Typically, most models of how language influences communication effectiveness have concentrated on monolinguals and how they process information. These authors’ integrative framework of extant research on dual language processing will provide a broader context for the growing literature on bilingual processing, helping pinpoint key areas for future research.

Our discussant is Laura Peracchio, who has published a number of articles that explore psycholinguistic phenomenon in consumer behavior. Dr Peracchio is President-Elect of the Society for Consumer Psychology (SCP). She is beginning her second term as Associate Editor of the *Journal of Consumer Research*. She has published her research in the *Journal of Consumer Psychology*, *Journal of Consumer Research* and *Journal of Marketing Research*. Dr. Peracchio has received research awards from the American Marketing Association, the Marketing Science Institute, and the *Journal of Consumer Research*. She will lead an intellectual discussion on the ideas presented in the three papers, including how to forward the research in these streams.

## **Behavioral/Psychological Return on Marketing:**

### **Consumers' Brand Name Cognition**

Shi Zhang

Firms spent millions on promoting brands and building brand equity. During the past decade, marketing researchers have come to provide various techniques that can measure the impact of marketing spending (e.g., advertising and communications) on brand performance (e.g., sales and profitability). However, the fundamental impact of such marketing activities on consumer cognition and knowledge about brands becomes an interesting and challenging question. That is, whether because of the marketing activities, brands may have become a set of unique entities in our mental knowledge. In this research, we attempt to provide laboratory evidence for the marketing impact by showing that brands form a distinct class of concept words from other classes of concept items in our mental lexicon (e.g., nouns, proper names, non-words). Using the hemispheric processing approach, we find that consumers respond to existing brand names differently in terms of response time, accuracy and memory relative to various control lexical items. Also, we find that consumers rely on both left and right hemispheres in cognitive processing of brand names, compared to the well-known left-hemisphere dependent behavior for lexical information. Our research shows brands to possibly have an independent neuro-psychological status, and suggests to marketers that advertising and communications about brands can leave "unique brand marks" in consumer brain and cognition.

## **Narrative Structure: Plot and Emotional Responses**

Jennifer Edson Escalas and Barbara B. Stern

The purpose of this paper is to examine consumption narratives in advertisements to ascertain the relationship between narrative structure and emotional effects (Stern 1998). Plot is the essence of narrative structure, for it alone contains both "stories" (events in time) and causality (the reason for the events) -- the distinctive features that set narratives apart from stories (Forster 1927 [1954]). That is, whereas a consumption story might say that a shopper went to Staples and then Office Depot, a narrative would say that a shopper went to both stores to search for bargains in home office supplies. The narrative urge stems from a deep-seated human desire to answer two questions: "What happened next?" and "Why?" Chronological sequences are habitual means of imposing order on events, and causal relationships are fundamental to making sense out of the events (Bruner 1986; Richardson in Martin 1986). Narratives also inform emotional responses (Shweder 1994); they function as a precursor of emotion by providing an interpretive scheme to organize one's relationship to the world and the self-relevancy of events (Lazarus 1991). Narratives also help people understand, evaluate, and cope with emotions, making them meaningful by locating them in the context of an individual's personal history and goals (Averill 1994).

Thus, our paper explores the process through which advertising narratives are able to evoke feelings in consumers. We hypothesize and find in an experiment that story quality has a positive effect on the emotional responses desired by advertisers, such as warm and upbeat feelings. These effects are mediated by sympathy, which stems from the perspective of an observer who is conscious of another's feelings, and empathy, which

stems from that of a participant who vicariously merges with another's feelings (Escalas and Stern 2003). Empathetic responses (e.g., "I share your pain") are traditionally considered to be superior to sympathetic responses (e.g., "I understand your pain") in aesthetic research (Langfeld 1920 [1967]). The experimental data are consistent with this assessment: the empathy response is found to have a stronger effect on emotional ad responses, due to the higher degree of absorption in the ad story for empathy compared to sympathy. Warm and upbeat feelings, in turn, have a favorable direct effect on ad attitudes and an indirect effect on brand attitudes (through ad attitudes).



# **Language Matters or a Matter of Languages? Marketing in Multilingual Environments**

Ryall Carroll, David Luna, and Laura Peracchio

The ease of travel and the abundance of information that can be shared over the Internet have increased society's exposure to multiple languages, creating a multilingual environment. A surge in bilingual and multicultural research has occurred over the past decade creating three main areas of research to help understand this increasing multilingual environment. We develop a framework that integrates those three areas of research on dual language processing, identify topics where more work is needed, and suggest specific propositions for further research.

The first area of research in our framework, unique language processing, deals with differences in language structures that cause language-processing differences for bilingual consumers. Language processing can differ in several ways, from differences in script directionality (left-to-right vs. right-to-left) to more complex mental processes such as the way verbal information is encoded in memory (Tavassoli & Lee, 2003; Zhang & Schmitt 2001). The findings in this area emphasize the importance of understanding the complexity of multiple-language settings.

The second area of research is bilingual processing, which is how bilingual individuals store and process dual languages. By providing a comprehensive explanation of how language is learned, processed, and later used, this research explains how various cognitive processing functions such as memory and conceptual features of the lexicon are affected by visual stimuli (Luna & Peracchio 2001), language schemas (Luna &

Peracchio 2005) and motivation (Luna & Peracchio 2002), and helps explain why various processing differences are found between bilinguals and monolinguals.

The third area of research is bilingual-bicultural processing, which deals with how people utilize and interact with multiple languages and multiple cultures. This research is concerned with how people internalize culture, adapt to their cultural surroundings, and the role that language has on the interpretation and meaning of a message (Luna, Ringberg & Peracchio 2005). This research is growing in importance and impact as cultures and languages continually merge and interact in societies around the world.

Our framework aims at the integration of sociolinguistic (i.e., language in society) and psycholinguistic (i.e., language in the mind) research as it relates to dual language processing. The two approaches are rarely considered in conjunction, so we provide a more complete view of multilingual environments, integrating research with different philosophies and methodologies—from interpretive research to experimentation. With volumes of marketing research dedicated to monolinguals, it is time for marketing researchers to focus their attention on the future and realities of a multilingual, multicultural world and provide a sound theoretical basis for research in such an environment.

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Relationship between Literacy and Cognitive Characteristics Relating to  
Categorization

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Recent research has shown that functionally illiterate consumers exhibit unique cognitive predilections, decision heuristics and trade offs, and coping behaviors (Viswanathan, Rosa, & Harris, 2005). Low-literate consumers have been shown to be different and exhibit distinct behaviors on the basis of identity management strategies and acceptance or rejection of stigma arising from low literacy (Adkins and Ozanne, 2005). This research attempts to systematically examine the relationship between levels of literacy and cognitive characteristics relating to categorization. We use an experimental design to understand categorization styles and evaluations of brand extensions among individuals with different levels of literacy.

[Click here for the full paper – Carolina, hyperlink this to the attached file \(literacy and categorization.pdf\) and delete this last part](#)

**Session 1C (Shanri La Lounge)**

**The Effect of Others on Judgments and Feelings about Products and Experiences**

*Chair: Ramanathan Suresh, University of Chicago*

*Discussant: TBA*

I See, I Do, I Like: The Consequences of Behavioral Mimicry for Attitudes.

*Rosellina Ferraro, University of Maryland*

*James Bettman, Duke University*

*Tanya Chartrand, Duke University*

Is Happiness Shared Doubled and Sadness Shared Halved? Social Influence on Enjoyment of Hedonic Experiences

*Rajagopal Raghunathan, University of Texas, Austin*

*Kim Corfman, New York University*

Consuming With Others: Social Influences on Moment-to-Moment and Retrospective Evaluations of an Experience

*Suresh Ramanathan, University of Chicago*

*Ann L. McGill, University of Chicago*

### *Overview of the Session*

Many common consumption situations involve the presence of others, be they family members, friends, or strangers. During such situations, consumers may or may not speak to each other, but they may be able to observe the reactions of their companions. An emerging field of research in social psychology has begun to examine how people may influence each other in their joint interactions (see, e.g., Chartrand and Bargh 1999; Gump and Kulik 1997; Hatfield, Cacioppo and Rapson 1994; Howard and Gengler 2001; Neumann and Strack 2000). Such social influences have been attributed to a form of emotional contagion due to mimicry of behavior (Chartrand and Bargh 1999), which can cause people to adopt the emotion associated with the facial expressions or mannerisms that they have mimicked. Others have held that these social influences result from a need to belong that can lead to quick forging of bonds (e.g., Baumeister and Leary 1995; Brewer 1979, Tajfel et al. 1971). This session seeks to integrate some of these perspectives in presenting a dynamic view of how the presence of others can influence attitudes and feelings towards products and experiences.

The broad purpose of this proposed session is to present work that adds to this growing body of research, and to delineate the affective, motivational and behavioral processes at play in situations involving social consumption. In doing so, we identify several new dimensions to these phenomena. For example, we aim to show that people who mimic one another in the process of consuming a product have more positive attitudes towards the product (Ferraro et al.). We also plan to show how congruence in opinions leads to a sense of affiliation that in turn causes people to enjoy an experience



(Raghunathan and Corfman). Finally, we also propose to show how emotional contagion leads to a sense of long-run connectedness that predicts overall evaluations of the experience independent of the peak and end affect in the experience (Ramanathan and McGill). The specific purposes of the proposed session are: (a) to outline the theoretical processes at play, whether cognitive, affective or motivational, (b) to determine the conditions that facilitate and impede these processes and to understand the boundary conditions thereof; and (c) to explore these effects in different domains, across multiple research paradigms.

### ***Potential Contribution***

The papers in this session explore the mechanisms by which judgments and feelings about a product or an experience can be influenced by the presence of others. In doing so, they explore various explanatory mechanisms for the effects and add new insights about social influences. For instance, the paper by Ferraro and co-authors shows that mimicry can influence attitudes towards a product even among people who do the mimicking, suggesting that the effects of social contagion are bi-directional. The paper by Raghunathan and Corfman looks at more direct ways of influencing feelings about an experience, manipulating a sense of affiliation among people sharing the experience by creating congruence or incongruence in opinions. They argue that shared opinions about the experience can significantly increase the enjoyment of the experience. The paper by Ramanathan and McGill manipulates this sense of connectedness in a more subtle manner. They create conditions in which people can or cannot observe each other's expressions and explore, through a moment-to-moment tracking of a shared experience, the effect of long-run connectedness or coherence on evaluations of the experience.

The first paper by Ferraro, Bettman and Chartrand examines the effect of mimicking on evaluations of products among those who do the mimicking, and suggests that the mere act of mimicking another individual's consumption behavior can affect downstream evaluations of the product. They contrast this with a situation where a person can observe another's behavior without mimicking it, and find that evaluations in this instance are not affected. Participants viewed a confederate engaged in a task during which he consumed one of two available snacks. Half of the participants had the same two snacks available to them during the study session. The remaining participants did not have any snacks available to them, thereby removing the opportunity to mimic. Participants with snacks available mimicked the confederate's behavior by consuming more of the same snack and subsequently reported more favorable attitudes towards the snack consumed. Attitudes for participants without snacks were not affected by mere observation of the confederate's behavior, suggesting that the effects on attitudes resulted from mimicry behavior.

The second paper by Raghunathan and Corfman argues that enjoyment of an experience can be affected by whether participants in the experience hold congruent or incongruent opinions about it. They further suggest that congruence of opinions signal two things to participants – first, a sense of affiliation or psychological closeness, and second, a sense that their opinions are accurate because others hold them as well. In two studies, they explore the relative contributions of the two processes to enjoyment of the experience. In the first study, they created a context in which participants believed that the need for accuracy was not diagnostic to judgments. Specifically, they showed participants a set of pleasant and unpleasant TV ads, and manipulated congruence by

having a confederate express an opinion about the ad that was laudatory (not laudatory) about the pleasant (unpleasant) ad and vice-versa. Subsequent ratings of enjoyment of the experience were found to be higher among those who received congruent feedback, and were driven by a feeling of psychological closeness, but not by a need for accuracy. In a second study, they created a context where accuracy would be diagnostic to judgments. Participants rated pleasant or unpleasant formulations of orange juice, a stimulus for which participants believed there was an objective measure of quality. Congruence of opinions was once again manipulated via confederate feedback. Raghunathan and Corfman find that participants' enjoyment of this experience was higher when opinions were congruent, but that both the need to affiliate and the need for accuracy affect such enjoyment.

The final paper by Ramanathan and McGill examines what happens to evaluations of an experience when there is no direct feedback about an experience, but instead, participants can or cannot observe the expressions of each other while going through the experience. Using a continuous joystick measure of ratings of the experience and cross-spectral analyses of the resultant time series, they find that people who can observe each other catch each other's moods and move together in synchrony over the long run. This measure, called coherence, is an independent predictor of participants' retrospective evaluations of the experience, over and above the peak and end affect, as suggested by Fredrickson and Kahneman (1993). In a second study, the authors manipulate congruence of goals that participants have during the experience, by giving both members in the dyad either a consummatory or an evaluative goal, or creating a mismatch such that one had an evaluative and the other a consummatory goal. Results

suggested that participants with matched goals (either consummatory or evaluative) had greater coherence, and that this coherence once again independently predicted evaluations of the experience. Mismatched pairs, on the other hand, functioned as individuals rather than as pairs, and their evaluations were driven only by their peak and end affect.

All three papers in this session focus on the role that social factors may play in influencing judgments or feelings. This may happen through two routes – overt verbal feedback from people in the experience, or subtle contagion through observations of expressions or mannerisms. Two of the papers (Ferraro et al; Ramanathan and McGill) examine the subtle route, showing that mere observation or mimicking of expressions or behavior of another participant can influence evaluations of a product or experience. A third paper (Raghunathan and Corfman) looks at the direct route, showing that receiving congruent feedback can influence a sense of affiliation that in turn affects enjoyment of the experience. Together, the three papers look at different domains of social influence, thereby attesting to the generality of the findings presented.

### ***Audience***

We expect this session to be of interest to at least two groups of people: (a) researchers in the domains of non-conscious processes, emotional contagion and social influences and (b) researchers and practitioners in experiential marketing. From the point of view of practitioners, the findings have implications for the design of experiences, suggesting ways for systematically influencing through social feedback how people evaluate the experience.

### *Summary*

We feel that the papers fully express the spirit of SCP Special Sessions for several reasons. While all three papers address issues relating to social influence, each provides distinct conceptual and methodological contributions. They triangulate on the effects of the presence of others through innovative manipulations and procedures. They also show different routes to such effects, attesting to the generality of these effects and providing conceptual rigor. Most importantly, the proposed session provides rich insights in a domain that has enormous practical import.

## Abstracts

### **I See, I Do, I Like: The Consequences of Behavioral Mimicry for Attitudes**

*Rosellina Ferraro*, University of Maryland

James Bettman, Duke University

Tanya Chartrand, Duke University

In this research, we combine ideas from social influence with emerging research on nonconscious processing. The mimicry literature in social psychology has shown that individuals nonconsciously mimic facial expressions and behaviors such as foot-shaking and face-touching. This suggests that individuals may model others' consumption choices without conscious awareness. We examine whether consumption behavior is mimicked and the subsequent implications for product preference.

Research exploring the consequences of mimicry has focused exclusively on the impact on the individual who was mimicked. We examine the downstream consequences for the individual doing the mimicking and propose that mimicking others can influence an individual's attitudes towards objects involved in mimicry. Specifically, we argue that individuals mimic the consumption behaviors of other people, and such mimicry then affects attitudes toward the product(s) consumed. Participants viewed a confederate engaged in a task during which he consumed one of two available snacks. Half of the participants had the same two snacks available to them during the study session. The remaining participants did not have any snacks available to them, thereby removing the opportunity to mimic. Participants with snacks available mimicked the confederate's behavior by consuming more of the same snack and subsequently reported more favorable attitudes towards the snack consumed. Attitudes for participants without snacks were not affected by mere observation of the confederate's behavior, suggesting that the

effects on attitudes resulted from mimicry behavior. Thus, this study provides evidence that mimicry has important downstream consequences for the mimicker.

Future research will focus on mimicry of potentially harmful behaviors (e.g., opting for a fattening food option) without conscious intention and mimicry as a means of stabilizing and reinforcing group thinking and behavior.

## **Is Happiness Shared Doubled and Sadness Shared Halved?: Social Influence on Enjoyment of Hedonic Experiences**

Rajagopal Raghunathan, University of Texas, Austin

Kim Corfman, New York University

Many hedonic consumption activities, such as shopping at a mall, going on vacation, and eating at a restaurant, are generally shared with others. This leads to the important question of how sharing a hedonic activity, versus experiencing it alone, influences enjoyment from it. A variety of aphorisms, such as “happiness shared is doubled and sadness shared is halved” and “misery loves company,” suggest that sharing both pleasant and unpleasant experiences can have a positive effect. However, little research pertains directly to the effects of social influence on enjoyment of shared experiences. This research takes a first step toward examining how social influence impacts enjoyment of shared experiences.

Extrapolation from informational and normative influences suggests that enjoyment is enhanced when others offer positive opinions and diminished when they offer negative opinions about shared stimuli. We propose an alternative model. Based on the need to belong (cf. Baumeister and Leary 1995) and the need for accuracy (cf. Trope 1975, 1979), our model builds on the premise that others’ opinions provide more than just information about shared stimuli. They also provide information on the health of interpersonal relationships and on the confidence one should have in one’s views. We proposed that congruence of opinions about shared stimuli enhance enjoyment of shared experiences by engendering a feeling of belonging and by increasing confidence in the accuracy of one’s views, and that incongruence of opinions diminishes such enjoyment by decreasing the sense of connection and decreasing confidence in one’s accuracy.



Results from two controlled experiments with different contexts support our hypotheses and indicate that, under some circumstances, social influence can operate in opposite directions on *judgments* of shared stimuli and on the *enjoyment* of sharing them.

## **Consuming with Others: Social Influences on Moment-to-Moment and Retrospective Evaluations of an Experience**

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Ann L. McGill, University of Chicago

Much of the work on affective experiences has focused on individual consumption and has centered on understanding the relationship between moment-to-moment affect felt by an individual over the course of an experience and the person's overall assessment of the experience (e.g., Fredrickson and Kahneman 1993; Redelmeier and Kahneman 1996). According to this stream of research, global evaluations of the experience can be predicted by two key moments in that experience, namely, the peak and the end affect felt by the consumer. These studies do not however consider what might happen to an individual's liking of the experience if there is someone else present and sharing the same experience.

In this paper, we examine how shared consumption of an experience may alter both the moment-to-moment affective reaction and consumers' overall retrospective evaluations of the experience. We suggest that global evaluations are influenced not just by the individual's own peak or end affective states but also by the degree to which the individual feels connected or entrained with another person sharing the same experience. In our first study, we examine one moderating variable – whether or not people can observe each other's expressions while going through the experience. Participants were either paired or alone while watching a popular comedy show on two adjacent computers. We manipulated observability for the pairs by using a tall or a short partition between the two computers. Online ratings were collected every second via a joystick. A cross-spectral analysis was run on the resultant time series (420 datapoints per individual), to determine how people move together in their ratings at various frequencies. This

measure, called coherence, was found to be higher among people who could observe each other's expressions, suggesting that their ratings covaried with each other over the long run. This coherence, in turn, was found to independently predict the joint evaluations of the experience by both members of the pair, over and above the individuals' own peak and end affect. Further, this was found to be true only for participants who were in the same pair and not for participants who were in the same condition but not part of the same pair.

In a second study, we manipulated the goals (enjoy versus critically evaluate) people had in the experience, and created conditions where members in the pair were either matched or mismatched on these goals. Further, within the matched condition, we also created pairs where both participants had a enjoyment goal or both had an evaluative goal. We found that regardless of type of goal, matched pairs had a greater coherence compared to mismatched ones, that is, they tracked together in their ratings of the experience. Once again, coherence independently predicted evaluations of the experience. Mismatched pairs, and randomly constructed false pairs from the alone condition however functioned as individuals and their peak and end affect were the only predictors of the evaluations of the experience.

Consumer Contamination: How Consumers React to Products Touched  
by Others

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**CONSUMER CONTAMINATION: HOW CONSUMERS REACT TO PRODUCTS  
TOUCHED BY OTHERS**

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## Abstract

Although consumers like to touch products while shopping, we propose a theory of *consumer contamination* whereby consumers evaluate products previously touched by other shoppers less favorably. The theory is tested by manipulating cues that increase the salience that consumer contact has occurred. Further, the role of disgust as the underlying mechanism of the theory is investigated.

# **CONSUMER CONTAMINATION: HOW CONSUMERS REACT TO PRODUCTS TOUCHED BY OTHERS**

Recently, researchers have found that information obtained through physical touch plays a central role in evaluations of products (Mooy & Robben 2002; Peck & Childers 2003). In fact, the importance of touch in consumption has been cited as one of the critical factors limiting the adoption of online shopping, an environment void of tactile information (Alba et al. 1997; McCabe & Nowlis 2003). Although prior research suggests that touch plays a positive role in consumption, the current research shows that consumer contact with products may actually be a double-edged sword for marketers. Specifically, we develop a theory of *consumer contamination* defined as contamination from consumer touching. Using the law of contagion (Frazer 1892/1959; Mauss 1902/1972; Tylor 1897/1974) as a theoretical framework, we propose that when consumers believe another consumer has previously touched a product, their evaluations of and purchase intentions for the product will decrease. We test this prediction in three field experiments in a retail shopping environment by manipulating factors that increase the salience that consumer contact has occurred, referred to herein as *contamination cues*. In addition, we provide insight into the underlying process of consumer contamination by investigating the role of disgust.

## **CONCEPTUAL BACKGROUND**

Developed by anthropologists to summarize the beliefs and practices traditional cultures use to describe how the world works, the law of contagion, states that when a source (person/object) and a recipient (another person/object) come into contact, the source will influence the recipient (Rozin & Nemeroff 1990). This influence arises

because when the two touch, the source transfers its essence (i.e., some or all of its essential properties) to the recipient (Nemeroff & Rozin 1994).

Research shows that contagion can play a role in an interpersonal context. In anthropological research, Meigs (1984) found that villagers of the Hua tribe refused to consume food prepared by a new bride because they believed that she had polluted the food with her essence. Correlational research has also shown that people are uncomfortable touching an object formerly owned by someone else (e.g., Hitler; Nemeroff 1995; Rozin et al. 1989) because they do not want to be associated with items belonging to people about whom they have strong, negative feelings. Finally, in a consumer context, survey research found that 76% of respondents will not buy used underclothing and 20% refuse to purchase used overcoats (O'Reilly et al. 1984), as they perceive the previously touched products to be contaminated by others. Indeed, there are many cases where products are physically contaminated from previous touching or usage (e.g., floor-room models). However, we propose that consumers generalize this notion for even brief contact that does not actually result in any physical contamination.

Just as consumers form lower evaluations of demonstration/sample products that have actually been harmed through touching, contamination arising from incidental consumer contact is expected to have the same result. This generalized contamination effect should be manifested by lower evaluations of and purchase intentions for touched products compared to ones that remain untouched, even if consumer contact with a product is not formally observed – very rarely does one actually see who has test-driven an automobile. In these instances, consumers simply infer contact has occurred. Thus, a cue in the retail environment that merely signals that someone else has previously



touched the product is necessary for consumer contamination to occur. As such, we propose that perceived contact between a consumer and a product results in other consumers having less favorable evaluations of that product.

Implicit to our proposition is the presence of environmental cues that signal a product has been touched. These contamination cues, which can be relayed through a variety of sources (e.g., other consumers, sales staff, placement in the store), increase the salience of contact. Since contamination effects in anthropology have been shown to increase with salience (Angyal 1941), the more clearly a cue signals that a consumer has touched a product, the larger the predicted effect of contamination on other consumers' evaluations of that product. Although there are several possible contamination cues present in the retail environment, we focus on three: proximity to contact, time elapsed since contact, and number of contact sources.

## **HYPOTHESES**

The first contamination cue we examine is proximity to contact (PTC), defined as the physical location of the product relative to where it would come in contact with other consumers. To understand how PTC influences evaluations and purchase intentions of touched products, we draw from social impact theory (Latané 1981) which proposes that the presence/action of a social presence will impact a target, with the greatest impact arising from close proximity (as opposed to further away). Extending this principle to the present context, we predict that as contamination salience increases via PTC (the product moves closer to the contact location) there will be an increase in the impact of consumer contamination on product evaluations and purchase intentions. This is expected to occur

because as the product moves closer to a contact location, consumers will perceive that there is an increase in the probability that the product has been touched.

**H1:** Product evaluations of and purchase intentions will be lower if a product is physically proximate (vs. not proximate) to the location of consumer contact.

The second contamination cue we consider is time elapsed since touch (TE). Unlike PTC, it is unclear how time will influence product evaluations and purchase intentions. The law of contagion suggests that once contact has been made the source will continue to influence the recipient indefinitely – “once in contact, always in contact” (Frazer 1959). Indeed, two correlational studies found that contamination of an item continued despite washing the product (Rozin et al. 1989) and removal of the contaminant (Hejmadi et al. 2004). These findings suggest that consumer contamination will have a lasting effect regardless of the amount of TE. In contrast, construal level theory suggests that responses to a contamination event will vary at different points in time (Trope & Liberman 2003). This is due to the fact that people form high-level construals (i.e., abstract representations) of distant-future events but low-level construals (i.e., concrete/vivid representations) of near-future events. Although the theory focuses on the impact of temporal distance for future events, the principles may also apply to past events. Thus, when considering distant-past events, consumers should form higher level, less concrete construals about the event compared to near-past events. As such, the salience of consumer contamination would be mitigated as time passes such that the shorter the TE, the stronger the consumer contamination effects realized. Given the two alternative streams of research no formal hypotheses are forwarded.

The third contamination cue examined is the number of sources having physical contact with a product (NUM). According to the social impact theory, as the number of

people increase so to will their impact on a target. Extending this to the present context, as NUM increases there will be an increase in contamination effects,

**H2:** Product evaluations and purchase intentions will be lower if a product is thought to have had contact with many (vs. one) consumers.

Finally, research has suggested that the law of contagion operates in the domain of disgust (Rozin et al. 1986). In general, disgust is manifested by rejection and/or lower evaluations of a contaminated object (Rozin & Fallon 1987; Rozin & Nemeroff 1990). Given this, we expect that consumers who perceive contamination has occurred will experience feelings of disgust which will translate into negative consumer product evaluations and purchase intentions. Thus, disgust is the mechanism that motivates a change in consumer evaluations for products that others have touched.

**H3:** Disgust will mediate the influence of consumer contamination on product evaluations and purchase intentions.

## STUDY 1

Study 1 used a one-way between-subjects design with PTC (close vs. medium vs. far) as the experimental factor. Sixty-seven undergraduates participated in the study.

Participants were run individually at the university student center. Upon arrival they were told that the purpose of the study was to gather marketing research information for the bookstore. As such, they would be asked to visit the store and complete an assigned task that would be identified by selecting an envelope. Unknown to participants, each envelope indicated the same task: try on a specific t-shirt in the store. The envelope included a picture of the t-shirt and instructions to find a sales associate in the clothing section to help locate the proper article of clothing. A trained confederate assumed the role of a sales associate and implemented the PTC manipulation. In all conditions, after

participants showed the sales associate the picture, the sales associate said “We only have one left in stock...” In the *close* condition the sales associate then said “and someone is trying it on.” Participants were then taken to the dressing room and moments later a second confederate pretending to be another shopper exited the dressing room, leaving the t-shirt in the room. In the *medium* condition the sentence was finished with “and it is over here on the return rack” and the shirt was located on a return rack near the dressing room. In the *far* condition the sentence ended with “and it is just over here on the rack” and the shirt was located on a regular display a few feet away from the return rack. Because the confederates never actually touched the t-shirt, physical contact was only implied by the PTC manipulation. After finishing the task, participants completed a questionnaire and were debriefed.

Overall product evaluations were assessed using five seven-point scales (e.g., bad/good, undesirable/desirable,  $\alpha = .95$ ). To measure purchase intentions, participants indicated their likelihood of buying the product (very unlikely/very likely). They also indicated how they felt during the shopping experience using a battery of affect scales ranging from 1(not at all) to 7 (very), including four items to assess disgust (e.g., disgusted, revolted,  $\alpha = .76$ ). Participants also completed a manipulation check for PTC, which was successful. Finally they indicated their gender and age and completed an open-ended suspicion probe. Responses to these measures were not significant in this or any of the subsequent studies and are not discussed further.

## **Results and Discussion**

Analysis of variance (ANOVA) using PTC as the independent variable and the evaluation index as the dependent variable produced a significant main effect ( $F(2, 64) =$

22.95,  $p < .001$ ). Consistent with H1, reducing PTC resulted in a linear decrease in product evaluations as the t-shirt was evaluated significantly more negatively when it was located in the dressing room ( $M = 2.47, p < .01$ ) as compared to on the regular rack ( $M = 5.20$ ), and more negatively when it was in the dressing room as compared to the return rack ( $M = 3.86; p < .001$ ). A second ANOVA demonstrated that purchase intentions were also significantly influenced by PTC ( $F(2, 64) = 9.04, p < .001$ ). Purchase intentions were lower the closer the PTC location ( $p$ 's  $< .05$ ). These results provide the first empirical evidence supporting the existence of consumer contamination – when consumers receive a signal that another consumer has touched a product, they lower both their evaluations and purchase intentions for that product. Finally, a mediation analysis was conducted and determined that their decrease in evaluations and intentions was driven by feelings of disgust related to another shopper contaminating the product (H3).

It is important to note that in this study the location of the product may not only have manipulated PTC, but may also have changed perceptions about the TE; when the product was located in the dressing room or on the return rack, consumers may have thought the product had been more recently contaminated compared to when it was located on the regular rack. As knowledge regarding TE may have subsequently impacted evaluations and purchase intentions, we examine this issue in Study 2.

## **STUDY 2**

Seventy-five students participated in Study 2, a 2 (PTC: medium vs. far) x 2 (TE: short vs. long) between-subjects design. The same procedure was used as in Study 1, except only two levels of PTC were utilized and TE was manipulated. To achieve the TE manipulation, the sales associate told participants that the t-shirt had just been tried on in

the *short* condition, and that the t-shirt had not been tried on for a few days in the *long* condition. Dependent measures were the same as in Study 1 and included a manipulation check for TE, which was successful.

## **Results and Discussion**

An ANOVA with the evaluation index as the dependent variable produced main effects for PTC and TE ( $p$ 's < .01). However, these main effects were qualified by a significant interaction between the two factors ( $F(1, 71) = 5.43, p < .05$ ). Evaluations of the product were significantly lower when the product had just been touched and was on the return rack ( $M = 2.64$ ) as compared to the regular rack ( $M = 4.28, p < .001$ ). Further, evaluations were significantly lower when the product was located on the return rack and had just been touched as compared to when it was touched days before ( $M = 4.51, p < .001$ ). No other comparisons were significant ( $t$ 's < 1). The same pattern of findings was found for purchase intentions. These results support construal level theory (Trope & Liberman 2003) by showing that the impact of contamination disperses over time (as TE increased, the impact of PTC was mitigated). It appears that contamination effects are not permanent in an interpersonal retail context; thus “once in contact” does not mean “always in contact”. Finally, analysis again demonstrated that disgust fully mediated the impact of contamination cues on product evaluations and purchase intentions.

## **STUDY 3**

Eighty-one undergraduates were randomly assigned to conditions in a 2 (PTC: medium vs. far) x 2 (NUM: one vs. many) between-subjects design. The same procedure was used as in Study 2 with two exceptions. First, to manipulate NUM, in the *one* condition the sales associate told participants that one other person had tried on the shirt,

while in the *many* condition lots of other people had tried on the shirt. A manipulation check for this factor was included and was successful. Second, a new dependent measure assessed participants' willingness to pay (WTP) for the product (i.e., dollar amount).

## **Results and Discussion**

An ANOVA with the evaluation index as the dependent variable produced main effects for NUM and PTC ( $p$ 's < .05). The interaction effect between the two independent variables was not significant ( $F < 1$ ). Consistent with H2, participants evaluated the product more positively when only one other person ( $M = 3.86$ ) versus several other people ( $M = 3.19$ ) had touched the product before them. Further, consistent with H1, participants evaluated the product more positively when the product was located on a regular rack in the store ( $M = 3.89$ ) versus the return rack ( $M = 3.19$ ). Similar analysis was conducted using WTP as the dependent variable, yielding the same pattern of results. Finally, as in the earlier studies, the results of mediation analysis indicated that the effects of the contamination cues on product evaluations were fully mediated by disgust.

## **CONCLUSIONS**

Recent marketing research has found that consumers like to use the sense of touch to learn about products (Mooy & Robben 2002; Peck & Childers 2003). However, the present research demonstrates that while consumers enjoy touching products themselves, they respond negatively when other consumers have had contact with the products before them. Using a retail shopping environment, the present research provides the first evidence for a theory of consumer contamination where consumers are thought to contaminate products simply by touching them. In general, we find that the more salient

the contact, the larger the effect on consumer responses. Specifically, we examined saliency with regard to three contamination cues: proximity to contact, time elapsed since contact, and number of sources. Future research should investigate other cues as well.



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**SESSION 2 (Special Sessions), 3:50pm – 5:05pm**

**Session 2A (Card Room)**

**Beyond Fit : Emotional, Attitudinal and Cognitive Style Influences of Brand Extension and Merger Evaluations**

*Chairs: Thozhur Anil, Columbia University; Pragya Mathur,, New York University*

*Discussant : Laura Peracchio, University of Wisconsin at Milwaukee*

The Impact of Cultural Cognitive Style and Brand Extension Information on Brand Extension Evaluation

*Pragya Mathur, New York University,*

*Durairaj Maheswaran, New York University,*

*Nidhi Agarwal, Northwestern*

Fitting in with the Family: The Effect of Emotional Attachment on Consumer Responses to Brand Extensions.

*Alexander (Sasha) Fedorikhin, Indiana University,*

*C W Park, University of Southern California,*

*Matt Thomson, Queens University*

Fit to be Tied? Perceptual and Attitudinal Consequences of Merging Brands

*Andrew Gershoff, University of Michigan,*

*Don Lehmann, Columbia University,*

*Anil Thozhur, Columbia University*

Consumers rely on their knowledge about a brand to evaluate a product offered by that brand (Keller 1993). Yet, brands in the marketplace are rarely static, frequently changing by extending their offerings into new categories and by merging with other brands. It is estimated that 80% of new products consumers are exposed to each year involve a brand in the novel setting of an extension into a new category (Ernst & Young, Nielsen 1999). Similarly, consumers often experience brands in novel configurations as previously separate brands join together. One thirty year examination of incorporated companies concluded that nearly three-quarters had changed their identity as a result of a merger or an acquisition (Mueller 1984). Thus, consumers are regularly faced with evaluating brands and products in new light.

When a brand changes, by offering an extension or merging with another brand, consumers can no longer rely solely on past experience. They must make *predictions* about the new entity. Prior research on consumer reactions to new brand configurations has focused brand extensions and the similarity, or fit, between the attributes of the brand in the parent category or the manufacturing expertise of the brand and the category of the new product (e.g. Aaker and Keller 1990, Boush and Loken 1991). The purpose of this session is to push forward the boundaries of this research by exploring factors beyond traditional conceptualizations of fit that affect consumer response to brand extensions and brand mergers. Specifically, we examine three diverse psychological constructs that explain a consumer's interpretation of a change to a brand concept that go beyond similarity or categorization assessments.

The first paper by Mathur, Maheshwaran and Agarwal, goes beyond traditional notions of fit by presenting four completed studies showing that cognitive style affects

evaluations of brand extensions. The authors manipulated brand extension fit and type of information as abstract vs. concrete and found that individuals engaged in analytic processing, either through priming or a cultural cognitive style, tend to prefer near rather than far brand extensions, particularly when provided with concrete as opposed to abstract information. Conversely, individuals engaged in holistic processing show the opposite pattern of results.

The second paper, by Thomson, Fedorikhin and Park goes beyond fit by presenting two studies that explore the effects of emotional attachment on evaluations of brand extensions. They find that emotional attachment interacts with the level of fit, such that at higher levels of fit greater emotional attachment to a brand increases evaluation of that brand's extensions.

Next, Gershoff, Lehmann, and Thozhur present a paper with four completed studies that explore the effect of attitudes toward constituent brands in consumers' evaluation of newly 'merged' brands. They find that in addition to perceived similarity of attributes of merging brands, *similarity of attitudes* toward the brands plays a role in consumers' expected attitude toward a newly merged brand. They show that this effect is mediated by their confidence as to what the new brand will represent.

We expect that this session would generate significant interest for SCP members as it highlights and pushes forward an area of research with a rich and interesting history. It revisits this area by considering different influences to consumer evaluations of brand changes – which could be cognitive, affective or even attitudinal.

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## **Fitting in with the Family: The Effect of Emotional Attachment on Consumer Responses to Brand Extensions.**

Alexander (Sasha) Fedorikhin(Indiana University), C W Park (University of Southern California), and Matt Thomson (Queens University)

This paper introduces an important variable of consumer attachment to the brand extension literature, and adds to the emotional richness of this important area of consumer research. In two studies employing real and fictitious brands, this paper shows that emotional attachment has a positive effect on consumer reactions to brand extensions, even when controlling for the effect of attitude favorability and strength.

The first study examined the attachment construct using a fictitious brand through manipulations of both the fit between a parent and extended brand (low, medium, or high) and the attachment (low or high) to the parent brand. Attachment was manipulated by invoking separation distress that accompanies high levels of attachment.

As hypothesized, participants in the high attachment condition showed higher purchase intentions towards and willingness to pay for the extensions as opposed to those in the low attachment condition. The effect was pronounced at the high(sneakers and shorts) and medium (sneakers and sunglasses) levels of fit and. When the fit was low, as in the case of sneakers and grills, even the strong emotional bond implied by high attachment did not help.

The second study replicated the above results in the context of real brands that participants were strongly or weakly attached to. Different product categories were used for both the parent brand and the extension (jeans versus casual shirts, sandals, or desk lamps). Furthermore, the effect of attachment on evaluations of the extended brand is

partially mediated by brand commitment. The paper concludes with a discussion of future research ideas revolving around the attachment construct.



## **The Impact Of Cultural Cognitive Style And Brand Extension Information On**

### **Brand Extension Evaluation.**

Pragya Mathur (New York University), D. Maheswaran (New York University), Nidhi Agrawal (Northwestern University)

In three studies, the authors examine the effect of cultural cognitive style (analytic or holistic processing), brand extension fit, and type of information (abstract or concrete information) on brand extension evaluation and brand name dilution. Western cultures engage in analytic processing, evaluate near extensions more favorably than far extensions, and evaluate brand extensions more favorably when given concrete information. In contrast, Eastern cultures engage in holistic processing and evaluate brand extensions more favorably when given abstract information. The authors find that these effects can be observed when respondents are primed to process information in an analytic or holistic manner.

In these findings, the authors go beyond traditional notions of ‘fit’ or similarity in both processing information and evaluating brand extensions. They find that cultural cognitive styles and information type (regarding the brand extension) moderate the effect of fit on brand extension evaluations. Judgments of similarity or ‘fit’ are thus insufficient in explaining the success/failure of brand extensions without taking cognitive processing styles and information type into consideration. Implications for developing brand communication and future research in this area shall be discussed.

## **Fit to be Tied? Perceptual and Attitudinal Consequences of Merging Brands**

Andrew Gershoff ( University of Michigan), Don Lehmann (Columbia),

Anil Thozhur ( Columbia)

The marketplace has recently seen an increase in the merging of companies and brands across multiple product categories. Little research explores how consumers evaluate brand mergers to form new associations and expectations about the resulting firm. Also, relationships with constituent brands may moderate the role of fit between the brands in evaluating a resulting merged brand. For instance, when a brand with a strong positive relationship is merged with one that has a less positive or even adverse relationship, the advantage of 'high fit 'between the constituent brands, a concept used often in prior research, may be attenuated. Four completed studies exploring these issues find that a high degree of fit indeed enhances evaluations of the merged brand only when both merging brands were equally liked. In cases where the merging brands were either disliked or liked unequally, the effect of fit in positively affecting evaluations was not as evident.

Implications for brand relationship and 'brand fit' research will be discussed, as well as work that specifically manipulates fit (attribute) based cues versus relationship – based cues in merger related marketing communications.

## Session 2B (Mirage Bar)

### **The Pitfalls of Price-Quality Trade-Offs: Forecasting Errors, Self-Fulfilling Prophecies, and Malleable Preferences**

*Chair: Meyvis Tom, New York University*

*Discussant: Kristin Diehl, University of Southern California*

The Persuasive Power of Quality: Consumers' Misprediction of their Reactions to Price Promotions,

*Tom Meyvis, New York University*

*Cenk Bülbül, New York University*

Placebo Effects of Marketing Actions

*Baba Shiv, Stanford University*

*Ziv Carmon, INSEAD*

*Dan Ariely, Massachusetts Institute of Technology*

The Psychology of Versioning: Marginal Costs and Counterfactual Thinking as Determinants of Fairness Perceptions and Choice

*Andrew D. Gershoff, University of Michigan*

*Ran Kivetz, Columbia University*

*Anat Keinan Columbia University*

## **SESSION PROPOSAL**

One of the most common decisions we face as consumers is whether to sacrifice quality for price – or vice versa. Yet, our vast experience with these trade-offs does not imply that we can accurately predict their effect on us, nor that we are consistent in the way we evaluate them. The objective of this session is to document and explore a few of the anomalies associated with price-quality trade-offs. The first two papers demonstrate that the effects of price and quality differences on our actual experiences may differ systematically from what we (consciously) expect. The third paper demonstrates that the way we approach an identical price-quality trade-off depends on the nature and salience of the counterfactual alternatives that we can bring to mind.

In the first paper, Meyvis and Bülbül present people with a service that provides both high and low quality cartoons, and compare people's predicted versus actual reactions to a change in the service's pricing plan. Participants underestimate the effect of a discount on low quality cartoons, overestimate the effect of a discount on high quality cartoons, and overestimate the effect of quality differences on their overall purchase volume.

These results may be taken to suggest that consumers should be less concerned about quality and instead should be encouraged to take advantage of price discounts even in the face of quality concerns. However, as Shiv, Carmon, and Ariely demonstrate in the second paper, even when the objective quality of the product remains constant, consumers who purchase a product at a discount may in fact derive less benefit from this product. They demonstrate that this negative placebo effect is driven by consumers' expectations and occurs outside conscious awareness.

Finally, in the third paper, Gershoff, Kivetz, and Keinan document the malleability of consumers' reactions to particular price-quality trade-offs. In particular, consumers are less

willing to accept a decrease in quality in return for a price discount when counterfactuals of superior quality products are easily imagined and consumers' assumptions of the firm's marginal costs are being violated.

### **Contribution & Audience**

Price-quality trade-offs are obviously a very common, and often painful part of our daily purchase decisions. These three studies move beyond prior research that has focused on switching issues (such as asymmetries or loss aversion) or direct price-quality inferences, to provide insight into the predicted versus actual importance of quality, the effects of price discounts on actual product performance, and the malleability of consumers' willingness to accept inferior quality at a reduced price. We think that this topic will appeal to a broad range of consumer researchers, not only those interested in pricing or price-quality trade-off issues, but also those interested in forecasting errors, consumer satisfaction, the effects of consumer expectations, and the malleability of consumers perceptions of quality and fairness.

**PAPER 1: Meyvis and Bülbül, “The Persuasive Power of Quality: Consumers’  
Misprediction of their Reactions to Price Promotions”**

This paper presents three experiments in which participants can purchase both high and low quality cartoons from a cartoon watching service. Participants are confronted with a change in the pricing schedule of the service and are asked to predict how this price change will affect their cartoon purchases. These predictions are then compared to the actual cartoon purchase behavior of corresponding control groups. Across these studies, we observe that people systematically overestimate the impact of quality on their consumption behavior.

In experiment 1, participants underestimated how many low quality (versus high quality) cartoons they would purchase following a promotion on the low quality cartoons. They did not expect any change in the proportion of low quality cartoons they would select, whereas this proportion actually increased by more than 20%. In the second experiment, this effect was reversed for high quality cartoons. When the promotion was on the low quality cartoons, subjects again underestimated how many low quality cartoons they would watch. However, when the promotion was on the high quality cartoons, participants *overestimated* how many high quality cartoons they would watch. This result indicates that the effect was not caused by an underestimation of the impact of the price discount, but by an overestimation of the impact of the quality difference. Finally, in a third experiment, participants again overestimated the impact of quality on their cartoon purchasing behavior. Not surprisingly, participants expected that they would purchase more cartoons when they were exclusively high quality than when they were exclusively low quality (given identical prices). However, participants’ actual purchase behavior revealed that they purchased more cartoons when selecting from exclusively low quality cartoons.

In sum, people seem to overestimate the impact of quality differences on their future consumption behavior. We contend that product quality occupies an overly privileged place in consumers' decision making process – due to normative concerns, exaggerated perceptions of variance, a lack of understanding of adaptation mechanisms, and the reduced salience of other factors (e.g., time constraints).

## **PAPER 2: Shiv, Carmon and Ariely, “Placebo Effects of Marketing Actions”**

We demonstrate that marketing actions such as pricing can alter the actual efficacy of products to which they are applied. These placebo effects stem from activation of expectancies about the efficacy of the product, a process that appears not to be conscious. In three experiments we show that consumers paying a discounted price for a product (e.g., an energy drink thought to increase mental acuity) can end up deriving less actual benefit from consuming this product (e.g., they are able to solve fewer puzzles) compared to consumers who purchase and consume the exact same product but pay its regular price. We also provide evidence that the placebo effects documented in this research are mediated by expectations. In experiment 1 we show that performance after consumption of the energy drink that was purchased at a discount was significantly worse when the activation of expectations related to the drink's efficacy was strengthened than when it was not. Moreover, a mediation test revealed that expectations mediated the effects of price discounts on subsequent performance. We also present evidence that the process by which expectations give rise to the observed placebo effects occurs non-consciously. In experiment 1 we found no mediating effects of the extent to which participants thought that the drink affected their performance at solving the puzzles. In study 2 we utilized a well-known de-biasing paradigm (e.g., Schwarz and Clore 1983; Strack et al. 1993): if information activation is non-conscious (conscious) then drawing attention to the priming source reduces (enhances) subsequent effects of this information. In study 3 we demonstrate that another type of marketing action—communication--can also influence the actual efficacy of products. We conclude by discussing theoretical, managerial and public policy implications of the findings.



**PAPER 3: Gershoff, Kivetz and Keinan, “The Psychology of Versioning: Marginal Costs and Counterfactual Thinking as Determinants of Fairness Perceptions and Choice”**

Firms use a number of manufacturing processes to produce different versions of their products, including enhancing value by improving performance of existing products, subtracting value or “versioning” by disabling existing products, and using entirely different processes (Shapiro and Varian 1998). Two ways these methods differ is in the marginal cost to the firm for the worse compared to the better version of the product and the ease with which a consumer may engage in counterfactual thinking about how a better alternative might have been offered by the firm. We explore how consumer preferences and perceptions of product alternatives are systematically affected by the production method. Specifically we propose that perceptions of fairness, willingness to pay, preference, and choice for functionally identical products are reduced when expectations of firms’ marginal costs are perceived to be violated and when counterfactual thinking of more favorable product offerings by the firm is relatively easy.

Studies 1, 2 and 3 used 2 X 3 between-subjects designs to explore the basic effect of violations of expectations of marginal cost and ease of counterfactual thinking associated with commonly used production methods. Results of these studies showed the predicted interaction; there was less preference compared to other products offered by the firm (Study 1), less willingness to pay (Study 1), less choice compared to a competitor’s product (Studies 2 and 3) and ratings of less fairness (Studies 1, 2, and 3) in conditions where both marginal cost was violated and counterfactual thinking about the product (computer printers in studies 1 and 2, digital cameras in study 3) was relatively easy.

Studies four and five showed moderators by manipulating observable but meaningless difference between versions (color of the case) and unobservable differences (difficulty of production

method). As predicted, both studies showed that the negative effects on preference, choice, and fairness were attenuated where counterfactual thinking ease was inhibited by increasing both observable and unobservable, yet functionally irrelevant, differences between versions of the products.

## **Session 2C (Shangri La Lounge)**

### **Guilt, gift giving and shopping**

*Chair: Strahilevitz Michal, University of Arizona and Suzanne O'Curry Fogel, DePaul University*

*Discussant: No Discussant*

Why Would Anyone Feel Guilty for Giving a Homeless Guy Nineteen Dollars?:  
Good Deeds, Bad Deeds, and Take-Aversion

*Michal Strahilevitz, University of Arizona*

Consumer Guilt and Marketplace Responses: "Guilt-Free" Shopping

*Suzanne O'Curry Fogel, DePaul University*

Do We Really Need a Reason to Indulge?

*Jing Xu, University of Michigan*

*Norbert Schwarz, University of Michigan*

## **Guilt, Guilt, Guilt: Taking, Shopping and Indulging!**

Special Session Summary by Michal Strahilevitz and Sue O'Curry Fogel

### **“Anything this good has to be sinful...” Bree , a character in Desperate Housewives**

This unfortunate sentiment is shared by many consumers when enjoying rich foods, alcohol, or other indulgent pleasures. The idea that excessive enjoyment is bad seems to pervade western culture. There is also the guilt of spending too much, having more than others, or failing to share with those who have less. The purpose of this session is to explore issues associated with consumers' experience of all of these types of guilt.

At its simplest, the emotion of guilt typically stems from the belief that one has done something wrong. The wrong can be a violation of a widespread social norm, an action against another person, or a failure to behave in accordance with personal standards set for oneself. Guilt can be seen as positive when it leads to reparative behavior and better future behavior. Excessive guilt and lack of guilt are both considered pathological.

Baumeister and his colleagues (Baumeister, Reis, & Delespaul, 1995) have studied guilt extensively and conclude that most guilt is experienced as a result of an action that hurts another person with whom one shares a communal relationship. The first paper, by Michal Strahilevitz, looks at the guilt that deals with failure to help others.

Dahl, Honea and Manchanda (2003) surveyed consumers and asked specifically about guilt associated with purchase, use or disposal of a good or service. In this narrowed context, over half of respondents reported incidents that involved only themselves. Most recent work on consumer guilt has focused on the contrast between hedonic and utilitarian consumption. The

implicit assumption is that consumers frequently feel guilty when indulging in hedonic consumption, and they welcome the possibility to reduce that guilt (Strahilevitz and Myers 1998).

Research by O'Curry and Michal Strahilevitz (2001) has shown that mode of acquisition, mediated by guilt, can affect preferences for hedonic versus utilitarian options. Similarly, work by Kivetz and Simonson (2002) has emphasized the importance of justification in choosing hedonic products. Essentially, having a good reason to choose an indulgent product reduces guilt associated with the choice. The second and third paper presented in this session focus on the guilt associated with spending and indulging in pleasurable consumption.

## **Why Might One Feel Guilty for Giving Nineteen Dollars to a Homeless Person?:**

### **Good Deeds, Bad Deeds and Take Aversion**

*MICHAL STRAHILEVITZ (UNIVERSITY OF ARIZONA)*

Both raising money for a good cause (e.g., a charity) and acquiring more wealth for one's self (e.g. a pay check or other reward) can be viewed as positive outcomes. Indeed, in pursuit of the positive emotions that helping others and having more for ourselves can each create, people are often willing to sacrifice both time and effort. Kahneman and Tversky (1979) demonstrated the phenomenon known as loss aversion – that losses loom larger than gains. In this research, a series of experiments will be presented that demonstrate a phenomenon that can best be described as “take aversion” -- that taking away looms larger than not giving. The studies presented control for status-quo bias and focus on the mediating role of guilt and impression management in the phenomenon of take aversion.

In the first study, each subject was randomly assigned to one of three reward conditions. All subjects were given a fifteen-minute questionnaire for extra credit in a marketing course, and promised an additional reward for completing the study. In the first condition, “cash endowment,” the reward was described as \$1 in cash. In the second condition, “charity endowment,” the reward was described as \$1 donated to the Red Cross. In the third condition, “choice endowment,” subjects were told they would be able to choose whether they preferred to receive \$1 in cash or to have \$1 donated to the Red Cross. Once all the surveys had been completed, all subjects were given the same choice between receiving \$1 and giving that \$1 to

the Red Cross. In other words, those who were endowed with money had the option of switching to a donation or keeping the money, whereas those who were endowed with a donation were given the choice between leaving the money with charity or taking \$1 in cash rather than having the donation made. Finally, the subjects who had initially been endowed with a choice between charity and cash were given those same two options they had been promised.

Dependent measures included initial selection for the choice condition and final selection for all three conditions.

Of those who had been assigned to the cash endowment condition, 26% chose to change to a charitable donation. Of those who had been endowed with a donation, 92% kept the money with charity. Of those who had originally been endowed with a choice, 28% initially chose to give to charity, but that increased to 36% when they were given the same options, along with the chance to change their minds. These results suggest that switching from a donation to money for oneself is more difficult than switching from a cash endowment to a donation. This suggests that just as losses loom larger than gains, taking also looms larger than giving. The added fact that in the pure choice condition, cash was preferred over a donation suggests that, in some cases, take aversion (the tendency to view un-doing a donation as much more painful than saying no to an opportunity to donate) may be even more powerful than loss aversion.

Similar results were obtained using objects (key chains) and donations rather than cash and donations. Again, taking loomed larger than not giving and take aversion appeared to be even more powerful than loss aversion. Both the donation versus cash and the donation versus key chain study demonstrate that take aversion cannot be explained by the status quo bias. For example, switching from a key chain to a donation was significantly more common than switching from a donation to a key chain. However, in the pure choice condition, more subjects

chose the key chain. The same was found in examining choices between a donation and cash. In the key chain versus donation study, take aversion was observed even when controlling for impression management (i.e., other students witnessing the subject's decision). However, altruism was more prevalent across conditions when the decisions were made in the presence of other students.

A third study demonstrates that take aversion can also affect switching from one charity to another. In other words, more subjects will choose the March of Dimes over the World Wildlife Fund if they are endowed with a donation to the March of Dimes and given a chance to switch than if they are endowed with a donation to the World Wildlife Fund, and given a chance to switch to the March of Dimes. Those endowed with a choice fall somewhere in between. Again, take aversion was observed even when controlling for impression management (i.e., other students witnessing the subject's decision).

A final study to be presented focuses on the roles of guilt and impression management in all of the above three studies. Here subjects were given descriptions of the above scenarios and asked to rate how guilty they should feel both if others knew about their actions and if the decisions were made anonymously. Although impression management appeared to increase take aversion in all of the conditions, guilt was found to mediate take aversion (the increased popularity of a charitable option when it is endowed), and was observed even when controlling for impression management. Implications for understanding what take aversion and loss aversion share in common and how they differ will be discussed. The discussion will also include an examination of how the guilt of taking (from a good cause), the pain of losing (one's own wealth), the joy of giving (to a good cause), and the fun of gaining or acquiring (for oneself)



differ from one another in terms of both the nature of the emotions experienced and the intensity of those feelings.

## **Consumer Guilt and Marketplace Responses: “Guilt-Free” Shopping**

*Suzanne O’Curry Fogel*

*DePaul University*

The term “guilt-free” is widely used by advertisers and typically refers to one of two meanings. First, marketers of products that enhance the general good in some way urge consumers to choose their product because the purchase will be morally superior. Examples of this approach include American Apparel, which sells clothing not produced in sweatshops, Method cleaning supplies, which contain no environmentally harmful chemicals, and Newman’s Own food products, which contribute profits to charities.

The second common application of “guilt-free” is to products that help consumers circumvent the need for self-control, especially with respect to spending money and consuming “indulgent” products. Marketing these products as “guilt-free” addresses consumer issues with self-control. For example, low-fat and artificially sweetened products allow a consumer to eat the type of food that would not be permissible on a weight-control diet without strictly monitoring portions. The alternative of controlling one’s portion of a normal food, such as eating only one cookie, requires considerable willpower for most people. In the 1990’s, brands such as Snackwell’s flourished until consumers realized that low-fat foods with a lot of sugar were actually more fattening when eaten in large quantities.

“Guilt-free” is also frequently applied to discount shopping, such as club stores, outlet malls and off-price stores like T.J. Maxx and Filene’s Basement. Shoppers can purchase desirable items without violating their budget constraints. Despite the low prices, many consumers manage to overspend by buying more items than they would in a regular price store.

This paper reports interview and survey data on consumer experiences of guilt and reactions to marketers' use of the term "guilt-free." Issues of self-control in purchasing and consumption in response to the notion of guilt-free shopping are explored. Giner-Sorolla (2001) suggested that priming a negative self-conscious emotion such as guilt can lead to greater self-control among dieters. However, the term "guilt-free" could be viewed as a license for consumption. We report data on consumer perceptions of the effect of the term "guilt-free" as related to labeling of relatively hedonic products.

## **Do We Really Need a Reason to Indulge?**

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*University of Michigan*

Consumers often need (seek) reasons to justify their decisions or choices (Shafir, Simonson, and Tversky, 1990). Decisions to indulge oneself (e.g., purchasing luxuries, going on a cruise) may require legitimate reasons because hedonic indulgences may be construed as wasteful and are likely to evoke guilt and (anticipated) regret (Kivetz and Simonson, 2002; Lascu, 1991). As a result, consumers are more likely to choose utilitarian/necessity items over hedonic items because it is easier to justify their purchases. But do people actually enjoy their indulgences more when indulging with a reason than without a reason? The answer depends on how consumers' hedonic experience is assessed.

One of the accounts on which this paper is based argues that people may hold incorrect beliefs or naïve theories that are rarely updated about how they will feel in certain consumption situations and that this belief or expectation does not correspond to their actual hedonic experience (Robinson and Clore, 2002). According to Robinson and Clore's accessibility model, when people report on their current feelings, the feelings themselves are accessible, allowing for accurate reports. When they report their feelings during a specific past episode, they can often draw on episodic memory, retrieving specific moments and details of the past. In contrast, global reports of past feelings and predictions of future feelings are based on semantic knowledge. In this case, people draw on their general beliefs about the event class to infer what their feelings

“must have” been or will be. These different sources of information give rise to systematic differences in people’s self-reported emotion.

We asked half our participants to imagine they were consuming a hedonic item either with a reason (as a reward for hard work) or without a reason and to report their affective experience in that situation (global report condition). Half the participants were directed to recall their most recent hedonic consumption episode and to report their feelings (episodic report condition). They also indicated whether there was a reason associated with that last consumption episode. Our study shows that participants expect to experience more negative affect (e.g., guilt) if consuming a hedonic item without a reason than with a reason when asked in a global report fashion. However, when asked in an episodic condition, their hedonic enjoyment was unrelated to reasons or justifications. This is consistent with Robinson and Clore’s (2002) accessibility model, which suggests that the information that is chronically or temporarily accessible at that point in time drives the differences in emotional reports. Our finding suggests that a lack of justification does not limit the immediate pleasure of indulging, in contrast to what consumers expect.

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The Mediating Role of Anticipated Guilt in Ethical Decision Making  
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**THE MEDIATING ROLE OF ANTICIPATED GUILT  
IN CONSUMERS' ETHICAL DECISION-MAKING**

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## Abstract

The present study aimed at scrutinizing the behavioral effects of anticipated guilt feelings within the consumer context, more specifically ethically questionable consumer situations. Using structural equation modeling, the first study showed that the generally acknowledged relationship between ethical beliefs (antecedent by idealism) and ethical intentions is partially mediated by the anticipation of guilt feelings. Study 2 further examined the extent to which the anticipation of guilt affects a consumer's intentions by experimentally manipulating the guilt emotion. The results indicated that increasing the anticipation of guilt by making the consumer aware of the possible negative consequences of the behavior for others (i.e. the prototypical cause of guilt) significantly increased the consumer's ethical intentions controlling for ethical beliefs. These findings contribute to a better understanding of consumers' ethical decision making and may have several implications for both retail management and future emotions research.

## THE MEDIATING ROLE OF ANTICIPATED GUILT IN CONSUMERS' ETHICAL DECISION-MAKING

Recently, an important differentiation has been made in emotions research between frameworks focusing on the behavioral effects of current (or past) emotional experiences versus frameworks in which the anticipation of future emotional experiences has behavioral effects (Bagozzi et al., 2000). While research on the role of experienced emotions is relatively well established, systematic work on the role of anticipated emotions is in its infancy. Some studies have considered the effects of anticipated positive and negative affective reactions on behavior within the context of theory of planned behavior; other studies focused on the anticipation of discrete emotions (mainly regret) and their subsequent behavioral effects.

The present study aimed at scrutinizing the behavioral effects of anticipated guilt feelings within the consumer context, more specifically situations in which the consumer benefits at the expense of the seller by committing an ethical transgression (e.g. shoplifting, copying cds and software, receiving too much change and not saying anything) (Vitell, 2003). In many consumer ethics studies the two dimensions of Forsyth's (1980) ideology are identified as important determinants of consumers' evaluation of ethically questionable consumer activities (i.e. ethical beliefs): idealism (the degree to which an individual believes that the right decision can be made in a questionable situation), and relativism (the rejection of universal rules in making ethical judgments). Furthermore, relying on the attitude-behavioral intentions paradigm, consumers' ethical beliefs (antedecedent by idealism and relativism) are believed to determine their (un)ethical intentions.

The present research model aimed at extending this generally acknowledged ethical decision-making framework by incorporating the notion of anticipated guilt. Hypothesized was

that anticipated guilt mediates the relationship between an individual's ethical beliefs (antedecedent by ethical ideology) and his/her intentions (figure 1).

In the first study we tested our research model by using structural equation modeling (Lisrel 8.53). Several path models were examined, comparing the baseline model (without anticipated guilt) with the complete and partial mediated model. Results indicated that consumers' ethical intentions are influenced by the ethical beliefs (antedecedent by idealism) directly and indirectly through anticipated guilt feelings. In other words, the generally acknowledged ethical beliefs-ethical intentions paradigm was found to be partially mediated by anticipated guilt.

In the second study we wanted to establish additional support for our research model by experimentally manipulating the anticipation of guilt. In line with recent suggestions to treat emotions in marketing as social phenomena as opposed to strictly intrapsychic phenomena, we used the social conceptualization of the guilt emotion. That is, guilt typically arises in interpersonal contexts with the prototypical cause of inflicting harm or distress on a relationship partner by violating ethical and social standards (Baumeister et al., 1994). As expected, the results of the ANCOVA showed that increasing the anticipation of guilt (by making the consumer aware of the possible negative consequences of the behavior for others) significantly increased the consumer's ethical intentions, controlling for his/her ethical beliefs.

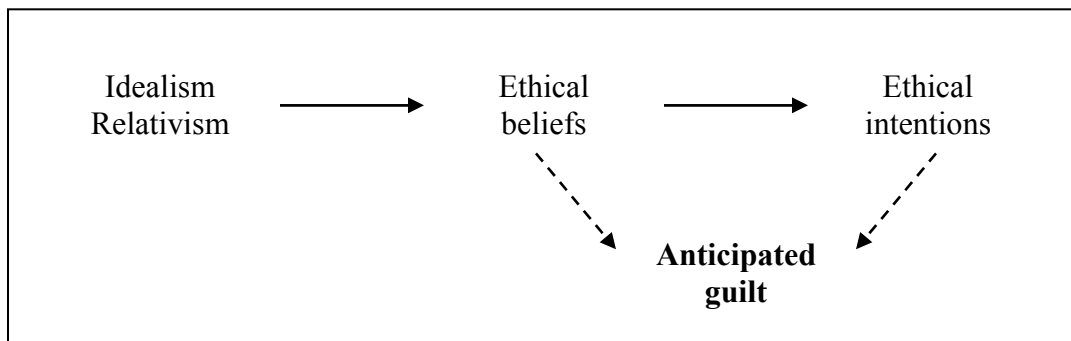
These findings contribute to a better understanding of consumers' ethical decision making and may have several implications for both retail management and future emotions research.

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Figure 1

*Research model*



**SESSION 3 (Competitive Paper Sessions), 5:15pm – 6:30pm**

**Session 3A (Card Room)**

The Effect of Brand Personality - Self-Concept Congruence on Brand-Related Consumer Responses

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## Abstract

This research is the first to empirically examine the effect of congruence between brand personality and consumers' self-concept on brand-related consumer responses. Congruence is defined as the fit of masculine/feminine brand personality and consumers' masculine/feminine sex role identity. A 12-item descriptive adjective scale measuring masculine and feminine dimensions of brand personality was developed and applied to test the proposed congruence effects. Results show that congruence has a significantly positive impact on brand attitude and preference, brand affect and trust, purchase intentions, attitudinal and behavioral brand loyalty, and word-of-mouth communication.

## THE EFFECT OF BRAND PERSONALITY – SELF-CONCEPT CONGRUENCE ON BRAND-RELATED CONSUMER RESPONSES

The importance of brand personality – a set of human traits associated with brands – stems from the impact it has on consumers' responses to a brand if it is congruent with the characteristics describing a consumers' self (Aaker, 1997). To date, research on the impact of brand personality on consumer responses has been relatively scarce (for an exception see Kim, Han, & Park, 2001), and brand personality – self-concept congruence *per se* has not been empirically tested. The objective of this research is to examine whether brand personality leads to positive consumer responses when there is a match between brand personality and a consumers' self-concept. More specifically, the focus is on congruence of masculine/feminine brand personality dimensions and masculine or feminine sex role identity as important part of consumers' self-concept (Stern, 1988). For this purpose, a scale of masculine and feminine dimensions of brand personality is introduced and applied to experimentally manipulate brand personality – self-concept congruence. Results of this research strongly suggest that brand personality – self-concept congruence has a positive impact on a variety of important brand-related consumer responses.

### BACKGROUND

#### Brand Personality

The marketing literature suggests that consumers frequently form strong relationships with brands (Fournier, 1998). These consumer-brand relationships are based on consumers' perception of, and preference for, certain brand characteristics that are considered to be very similar to human characteristics (Aaker, 1997; Fournier, 1998). This association of human characteristics with brands gives rise to the construct of brand personality (Aaker, 1997). To



date, five dimensions of brand personality (sincerity, excitement, competence, sophistication, and ruggedness) have been identified (Aaker, 1997). Although these dimensions differ somewhat across cultural contexts (Aaker, Benet-Martínez, & Garolera, 2001), consumers tend to anthropomorphize certain brands by associating them with human personality traits (Fournier, 1998; Plummer, 1985). The present research considers two additional dimensions of brand personality not proposed by Aaker (1997), namely consumers' construction of brand personality in terms of masculinity and femininity. Building on extant definitions of brand personality (Aaker, 1997; Azoulay & Kapferer, 2003), the masculine and feminine dimensions of brand personality are defined here as the set of human personality traits associated with masculinity and femininity applicable and relevant to brands. Brand personality is thus not to be confounded with consumers' perceptions of male or female sex as a demographic characteristic of a brand, nor with consumers' expectations of whether the typical buyer or user of the brand is male or female. Rather, masculine and feminine dimensions of brand personality result from the attribution of gendered personality traits (e.g., gentleness as an indicator of femininity) to brands. There are several scales measuring masculinity and femininity as human traits (e.g., MTI/FTI, Barak & Stern, 1986; BSRI, Bem, 1974; CPI – Fe, Gough, 1978; PAQ; Spence, Helmreich, & Stapp, 1974; SIS, Stern, Barak, & Gould, 1987). Research suggests, however, that scales measuring human characteristics are not appropriate for the description of characteristics associated with brands (Caprara, Barbaranelli, & Guido, 2001). It was therefore necessary to develop a scale measuring the masculine and feminine traits associated with brands prior to testing the focal hypotheses, rather than to rely on existing scales pertaining to masculinity and femininity as human traits to capture these dimensions of brand personality.

Congruence Effects

The relevance of masculine and feminine dimensions of brand personality arises from the fact that many brands (e.g., brands of personal care products) are positioned to specifically target either male or female consumers. A core component of consumers' self-concept is their sex role identity (Stern, 1988), i.e., consumers' perception of their own masculinity and femininity. Extant research indicates that consumers prefer brands congruent with their self-concept (e.g., Dolich, 1969; Sirgy, 1982; Wells, Andriuli, Goi, & Seader, 1957), because such brands are relevant to establishing and reinforcing consumers' self-concept (i.e., the brand is of "ego significance;" Fournier, 1998) and thus help consumers in achieving personal goals. While the self-concept – brand congruence literature has not considered the role of brand personality as source of congruence, it is likely that brand personality elicits such congruence effects if it fits relevant dimensions of consumers' self-concept. More specifically, congruence between consumers' sex role identity and masculine/feminine dimensions of brand personality should result in positive consumer responses to the brand. Interestingly, there has been some support for sex-role congruence effects as they relate to product image (e.g., Gentry, Doring, & O'Brien, 1978; Worth, Smith, & Mackie, 1992; Vitz & Johnston, 1965; see also Sirgy 1982). For conceptual and measurement-related reasons (Aaker, 1997), and due to practical implications for brand management, shifting the examination of congruence effects to the domain of brand personality (rather than the image of a product regardless of associations consumers have formed with the brand) can contribute to marketing knowledge and practice beyond these existing studies.

### Brand Personality and Consumer Responses

Brand personality has a number of consequences relevant to marketers, including the facilitation of perceiving brands as partners in a dyadic relationship, increased trust and loyalty

(Fournier, 1998), brand preference (Sirgy, 1982; see also Aaker, 1997), emotions (Biel, 1993), brand identification and word-of-mouth communication (Kim, Han, & Park, 2001). In line with the literature on self concept – brand congruence discussed earlier (e.g., Dolich, 1969; Sirgy, 1982), it is suggested here that brand personality will affect a number of brand-related consumer responses positively when it is congruent with consumers' self-concept. This is due to the fact that a brand's personality congruent with consumers' self-concept signals and enhances consumers' actual or desired view of themselves, and thus has a valuable self-expressive function.

H1: Brand personality – self-concept congruence enhances (a) brand attitude, (b) brand preference, (c) brand affect, (d) brand trust, (e) brand loyalty, (f) purchase likelihood, and (g) positive word-of-mouth communication, compared to brand personality – self-concept incongruence.

Given that both brand personality and consumers' self-concept consist of multiple dimensions (Aaker, 1997; Sirgy, 1982), congruence can only be achieved if dimensions of brand personality are matched with dimensions important to consumers' self-concept. This research examines the impact of congruence between the masculine and feminine dimensions of brand personality, and sex role identity as central part of consumers' self-concept (Stern, 1988).

## METHOD

### Study 1: Scale Development

Based on a literature review and an item generation pretest, a scale measuring masculine and feminine dimensions of brand personality was developed on a sample of six brands ( $n = 369$ ). The final scale comprises twelve descriptive adjectives: six pertaining to the masculine

dimension (MBP: adventurous, aggressive, brave, daring, dominant, sturdy; Cronbach's  $\alpha = .91$ ) and six pertaining to the feminine dimension (FBP: expresses tender feelings, fragile, graceful, sensitive, sweet, tender; Cronbach's  $\alpha = .90$ ) of brand personality. A two-factor CFA model indicated good fit (NFI = .98, CFI = .99, NNFI = .98, GFI = .95, SRMR = .03, RMSEA = .06). The model's  $\chi^2$ -value was significant ( $\chi^2(53) = 131.19, p < .01$ ), but did not exceed 3 times its degrees of freedom (Bollen, 1989). Factor loadings exceeded .73, and composite reliabilities (Bagozzi & Yi, 1988) amounted to .92 for MBP and .95 for FBP. Average variance extracted (Fornell & Larcker, 1981) was .67 for MBP and .75 for FBP. Both the masculine and the feminine dimension of brand personality emerged as unidimensional (AVE > .50, Fornell & Larcker, 1981) and separate constructs (standardized  $\phi$  between MBP and FBP = -.12, standard error = .05, correlation estimate  $\pm 2$  standard errors does not include  $|\pm 1|$ ; Anderson & Gerbing, 1988). Discrimination between masculine/feminine dimensions and Aaker's (1997) ruggedness/sophistication dimensions of brand personality was established in a follow-up study ( $n = 461$ ). AVE exceeded the squared correlation between MBP and ruggedness ( $AVE_{MBP}: .67 > .30$ ), and FBP and sophistication ( $AVE_{FBP}: .74 > .41$ ; Fornell & Larcker, 1981). This suggests that the masculine and feminine dimensions of brand personality are distinct from the ruggedness and sophistication dimensions of brand personality.

## Study 2: Effects of Brand Personality – Self-Concept Congruence

*Pretest.* Two well-known brands offering product lines for both men and women were identified for inclusion in the main experiment: Gillette and L'Oréal. Seventy-five participants rated these brands in terms of their masculine and feminine brand personality. Gillette was significantly more masculine in terms of its brand personality ( $M_{MBP\ Gillette} = 6.93, M_{MBP\ L'Oréal} =$

4.11,  $t(74) = 7.81, p < .001$ ), while L'Oréal was significantly more feminine ( $M_{FBP\ Gillette} = 4.00, M_{FBP\ L'Oréal} = 6.04, t(74) = 5.27, p < .001$ ).

*Sample and Procedure.* In an online experiment, 158 undergraduate students answered a series of questions regarding one of two brands (Gillette or L'Oréal). Brand served as between-subjects factor with random assignment.

*Measures.* Consumer responses relevant to brands included a three-item measure of brand trust (Chaudhuri & Holbrook, 2001; Cronbach's  $\alpha = .83$ ), a three-item measure of brand affect (Chaudhuri & Holbrook, 2001; Cronbach's  $\alpha = .92$ ), a three-item measure of brand attitude (negative/positive, dislike/like, favorable/unfavorable; Cronbach's  $\alpha = .93$ ), a three-item measure of brand preference relative to other brands (Sirgy et al., 1997; Cronbach's  $\alpha = .92$ ), a two-item measure of purchase likelihood (unlikely/likely, probable/improbable;  $r = .93$ ), a two-item measure of attitudinal brand loyalty (Chaudhuri & Holbrook, 2001;  $r = .71$ ), a two-item measure of behavioral brand loyalty (i.e., purchase loyalty; Chaudhuri & Holbrook, 2001;  $r = .84$ ), a two-item measure of likelihood of recommending the brand to others (unlikely/likely, improbable/probable;  $r = .93$ ), and a three-item measure of word-of-mouth communication (Kim, Han, & Park, 2001; Cronbach's  $\alpha = .87$ ). All of these were measured on 7-point scales. In addition, participants rated their sex role identity (SRI 10+10 items, Cronbach's  $\alpha = .91$  for masculine, and .89 for feminine SRI; Barak & Stern, 1986), and provided information on their brand usage.

*Results.* Congruence between the brand's personality and consumers' sex role identity was operationalized as a dichotomous variable. For consumers with a high masculine SRI score (after a median split,  $M_{high\ SRI-m} = 7.37, M_{low\ SRI-m} = 5.51, t(156) = 17.59, p < .001$ ), Gillette's masculine brand personality was congruent, while for consumers with a high feminine SRI score

(after a median split,  $M_{high\ SRI-f} = 7.07$ ,  $M_{low\ SRI-f} = 5.26$ ,  $t(156) = 17.75$ ,  $p < .001$ ), L'Oréal's feminine brand personality was congruent. Incongruence occurred for consumers with a low masculine SRI score rating Gillette, or for consumers with a low feminine SRI score rating L'Oréal. In a MANOVA with brand personality – sex role identity congruence serving as the independent factor (multivariate  $F(5, 152) = 2.83$ ,  $p < .05$ , partial  $\eta^2 = .09$ ), congruence had a significant univariate effect on brand trust ( $F(1, 156) = 11.28$ ,  $p < .01$ , partial  $\eta^2 = .07$ ), brand affect ( $F(1, 156) = 6.54$ ,  $p < .01$ , partial  $\eta^2 = .04$ ), brand attitude ( $F(1, 156) = 7.93$ ,  $p < .01$ , partial  $\eta^2 = .05$ ), brand preference ( $F(1, 156) = 5.57$ ,  $p < .05$ , partial  $\eta^2 = .03$ ), and purchase intentions ( $F(1, 156) = 22.52$ ,  $p < .01$ , partial  $\eta^2 = .06$ ). To examine the effect of brand personality – self-concept congruence on brand loyalty and word-of-mouth communication, a second MANOVA was conducted including only participants who had used the brand before ( $n = 134$ ). The effect of congruence was significant at the multivariate level (multivariate  $F(4, 129) = 3.13$ ,  $p < .05$ , partial  $\eta^2 = .09$ ), and the univariate level for attitudinal brand loyalty ( $F(1, 133) = 5.40$ ,  $p < .05$ , partial  $\eta^2 = .04$ ), purchase loyalty ( $F(1, 133) = 8.53$ ,  $p < .01$ , partial  $\eta^2 = .06$ ), likelihood of recommendation ( $F(1, 133) = 7.62$ ,  $p < .01$ , partial  $\eta^2 = .05$ ) and WOM communication ( $F(1, 133) = 11.62$ ,  $p < .01$ , partial  $\eta^2 = .08$ ). In all cases, congruence between brand personality and consumers' sex role identity resulted in more positive consumer responses. All planned contrasts were significant at  $p < .05$  (one-tailed tests), and H1 was thus supported. Results are summarized in Table 1.

## DISCUSSION

The current findings show that brand personality – self-concept congruence leads to positive consumer responses, such as more favorable brand attitude, stronger brand preference over competing brands, greater brand affect and trust, higher degree of attitudinal and behavioral

brand loyalty, stronger purchase intentions, and increased likelihood of positive word-of-mouth communication. This experiment is the first to demonstrate that positive effects of brand personality accrue if a brand's personality fits important dimensions of consumers' self-concept. This research further shows that brand personality can be conceptualized in terms of its gendered nature, and be measured by a two-dimensional scale proposed here. Interestingly, the masculine and feminine dimensions of brand personality emerged as two distinct and orthogonal factors, which mirrors common conceptualizations of masculinity and femininity as human traits (e.g., Bem, 1974). This suggests that consumers do indeed form brand associations on the basis of human traits.

There are many implications and opportunities for further research: First, while scale properties are promising, it is necessary to validate the proposed scale across brands and consumers. Second, it appears that there are more dimensions to brand personality beyond those proposed by Aaker (1997). Further research could thus identify these dimensions and, more importantly, establish which dimensions are congruent with dimensions meaningful to consumers' self-concept. Evidence presented here indicates that achieving such congruence by careful management of brand personality is a powerful tool in eliciting positive brand-related consumer responses. A related question is how brand personality can be purposefully created or managed, and how specific dimensions of brand personality can be strengthened. For example, masculine or feminine dimensions of brand personality might be reinforced by using appropriate color in packaging (see also Patin-Sohier & Brée, 2004). The current findings call for future research by highlighting how important brand personality is to a brand's success.

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Table 1

*Means, Standard Deviations, Cell Sizes in Study 2*

Dependent variable	Brand personality – self-concept congruence	Brand personality – self-concept incongruence
Brand trust	5.42 ( .90) <i>n</i> = 82	4.91 (1.00) <i>n</i> = 76
Brand affect	4.75 (1.08) <i>n</i> = 82	4.27 (1.29) <i>n</i> = 76
Brand attitude	5.64 (1.05) <i>n</i> = 82	5.18 (1.02) <i>n</i> = 76
Brand preference	5.46 (1.09) <i>n</i> = 82	5.07 ( .92) <i>n</i> = 76
Purchase intentions	5.26 (1.37) <i>n</i> = 82	4.51 (1.51) <i>n</i> = 76
Attitudinal brand loyalty	4.03 (1.55) <i>n</i> = 75	3.45 (1.31) <i>n</i> = 59
Behavioral brand loyalty	4.85 (1.37) <i>n</i> = 75	4.19 (1.25) <i>n</i> = 59
Likelihood of recommendation	4.95 (1.36) <i>n</i> = 75	4.27 (1.50) <i>n</i> = 59
Word-of-mouth communication	4.15 (1.34) <i>n</i> = 75	3.38 (1.24) <i>n</i> = 59

The Consumer-Firm Bond: An Existential-Phenomenological Description of  
the Nature of the Consumer-Firm Bonding Process

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**THE CONSUMER-FIRM BOND: AN EXISTENTIAL-  
PHENOMENOLOGICAL DESCRIPTION OF THE NATURE OF  
THE CONSUMER-FIRM BONDING EXPERIENCE**

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## Abstract

This paper proposes that consumers develop bonds with firms that have not been fully explored in the marketing literature. It is posited that there is an inherent desire within consumer's to form bonds with selected firms in the marketplace in much the same way that individuals form bonds with other people. This investigation supports the notion that the consumer-firm bonding processes is structurally isomorphic and allows insight into the mental structure and repeat purchasing behavior of consumers. As consumers engage firms in bonds, they derive both physical and psychological benefit. This study employs a qualitative methodology based on the practices of gestalt and existential-phenomenological psychology.

# **The Consumer-Firm Bond: An Existential-Phenomenological Description of the Nature of the Consumer-Firm Bonding Experience**

## **INTRODUCTION**

Understanding customer-firm relationships is a critical precursor to marketing success. Dialogue concerning customer loyalty, customer lifetime value, consumer behavior generally and relationship marketing, all in one way or another try to address the relationships customers have with products, brands, organizations, and people. The potential formation of a bond that develops between a consumer and a firm has been viewed as fundamentally rooted in the domain of marketing (e.g., Arantola 2002; Fournier 1998; Solomon 2002), but one that needs greater explanation and understanding.

The purpose of the research presented here is to more fully explore and describe the nature of the consumer-firm bonding phenomenon from the consumer's perspective. This study seeks to address a call for the advancement of understanding consumer-firm relationships as customer satisfaction and other traditional measures used for relationship evaluation such as trust, commitment, and long-term orientation do not seem to capture the fullness of the relationship notion (e.g., Doney and Cannon 1997; Gruen et al. 2000).

This research differs from existing consumer bonding research currently found in the marketing literature as it offers a more holistic notion of the consumer bonding phenomenon. Current studies in the marketing literature tend to focus upon a specific attribute of the consumer attachment such as, the emotional attachments consumers have with firms (Robinette et al. 2001), emotional and psychological attachments



consumers have with brands (Fournier and Yao 1997; Schuten and McAlexander 1995; Thomson et al. 2005), consumer-sales person attachment (Cravens 1995; Ingram 1996), consumer perception of quality (Aaker 1991), customer satisfaction (Grewal and Sharma 1991; Woodruff and Gardial 1996). This paper introduces the concept of the “consumer-firm” bonding experience. It proposes that consumers develop bonds with firms that have not been fully explored in the marketing literature.

It is posited that the marketplace may facilitate an environment allowing consumer-firm bonding to evolve. The study presented here reflects participants’ shopping experiences with stores to which they prescribe loyalty. Existential phenomenological interviews are employed to better understand the bonding relationships. Participants described consumer-firm relationships in rich language and provided insight into participants’ mental and emotional models as well as some of the feelings and attachments they developed toward certain stores they frequented.

## **EXISTENTIAL-PHENOMENOLOGY AND HERMENEUTICAL METHODOLOGY**

For this study to explore the nature of the consumer-firm bonding experience, it first must employ a methodology that is open to the notion of perceptual experience. We felt that a holistic model could best be developed through a methodology that facilitated access to deep and rich experientially-based consumer meanings. We wished to understand the bonding experience through the eyes of consumers living these bonds. Thus, a qualitative methodology based on the practices of gestalt and existential-phenomenological psychology is employed (Ihde 1986; Kohler

1947/1975; Merleau-Ponty 1962; Pollio et al. 1997).

The philosophical and methodological approach of existential and hermeneutical-phenomenology fits well with the intuitive sense of human essence and experience as perceived by the consumer (Hirschman 1986; Pollio et al. 1997; Thompson et al. 1989). It also allows for sufficiency and significant diversity of themes, suggesting that the core variation has been sufficiently explored.

**Existential-Phenomenology** can be considered a philosophical approach to interaction with the world whereby this interaction may have many meanings (Heidegger 1962/1967). In the context of this study, it suggests that similar experiences, or sensory inputs, consumers may have when in the bonding state or bonding process with a firm can possibly have different interpretations. Existential-phenomenology suggests that two individuals can create totally different meanings and perceptions from what may seem like quite similar experiences. Even when people participate in the same situation or social interaction, they will each create their own meanings.

Phenomenological studies do not seek to extract the consumer from the environment and consider the consumer as an individual. Rather the approach is to recognize that the individual consumer is an integrated part of a larger more complex gestalt psychological environment (Kohler 1947/1975). This study considers the consumer as part of the marketplace and world within which the consumer's psyche is engaged. Phenomenology can be considered as a methodology of reexamining the experience from the mind of the consumer (Merleau-Ponty 1962). In this study it is held that the experiences the consumer had with the firm are stored within the consumers' minds as possible schema or memories. Thus, in the context of this study, phenomenology refers to the thinking back,

the reconsideration, reflection, and reexamination of previously felt experiences the consumer has had with the firm.

**Hermeneutics and phenomenology** philosophy suggest that the word choices and sentiments used by the participants in this study are in effect self-interpretations of their own experiences with their preferred retail stores and represent each respondent's own unique viewpoint (Thompson et al. 1994). The language, sentiments, and word choices used are the medium through which the participants in the study seek to interpret, frame, and make sense of their experiences and share these notions with the interviewer.

The hermeneutical tradition fits well with the phenomenological approach to this study (Arnold and Fischer 1994), because phenomenological research emphasizes the experiential component of the participant as articulated through language. However, this study takes the position that simply because a consumer may have had a bonding experience with a firm this does not automatically assume that these experiences can be easily framed in language. These experiences may still be held at emotional or psychological levels that participants find it difficult to reach or tie together. Therefore, hermeneutics enables the researcher to gain an understanding of the essence of that which the respondent has experienced and articulated. Hermeneutics is in effect the bridge that links the phenomenological approach of this study (or the reflected experience of the consumers) to the conveyed meaning through language (Arnold and Fischer 1994; Hudson and Ozanne 1988). The term hermeneutics in its broadest sense means interpretation and is applied to this study's phenomenological approach by recognizing that consumers while describing their bonding experiences are interpreting their own lived experience through the process of reflexivity. With this approach this study seeks

to be objective and not infer preconceived meanings and inferences but rather respect the language, meaning, and intent of the individual participants. Consistent with the phenomenological approach, this study sought to remain as objective as possible and infer no pre-understanding of the data, and render the interviewer and researcher without any pre-understanding, prejudice, or judgments of the data as much as possible.

### **PROCEDURE**

Fifteen in-depth one-on-one interviews were employed for this study. Each interview was recorded on video and audio tape and transcribed for analysis. The interviews lasted from approximately forty five minutes to two hours in length. Once participants began to talk about their shopping experiences they were easily able to articulate and share their experiences. Each transcript was analyzed by multiple members of The Center For Applied Phenomenological Research at the University of \_\_\_\_\_.

Thirteen of the participants were female and two were male. Income levels ranged from affluent (over \$300k per year) to struggling college graduate student (approximately \$9,600 per year.) The age range was from mid twenties to late sixties. Race included African American, Caucasian, and Hawaiian. Respondents were typically interviewed in the comfort of their own home or a classroom in a church. Participants in the study were self-selected volunteers from a commonly attended church. The church was broad based in terms of age, gender, and ethnic diversity.

### **Analysis and Findings – A Sample Transcript Analysis**

Because of the limitations of space, only one partial interview can be offered here. This interview is typical in emergent themes and content of *all* of the respondents in this study.

Harry is a Caucasian male, middle aged, middle class, above average education, single, with a moderate income level, he recently moved to the southeast after having resided on the east coast for most of his life. We pick up this interview with Harry mid-stream as he is asked about his shopping experience at an upscale men's clothier:

H: . . . I build a familiarity with the people and a comfort level with the products and the variety and the products and price tags and this may sound silly . . . is the physical location of the store within the mall. They are on the end of the mall so I can go into the store from the outside without having to go through all the nightmare traffic in the halls in the mall and on that end of the mall, because of the way it is physically laid out you don't have so many cars parked as you do. . . (store name) is all to itself. So I can park there and not have to battle to find a parking place. Not have to battle the crowds to get in. It's just an easier shopping experience.

Harry offers the figural notion in a description of the physical location of the store in this excerpt with a ground of convenience and familiarity. He describes how the location gives him easier access to the store. He is recalling and reflecting upon the physical process of getting his car parked and the process of going to the store with as few encumberments as possible. In a very real sense, he perceives he can go to the store by the route described and this contributes to his personal comfort level with the store. This perception of locale and proximity for Harry in part contributes to his favorable predisposition and his attachment with this store. Let's continue with Harry and another example he offers in the interview when asked about another upscale men's clothier to which he had also previous prescribed loyalty:

I: Tell me about (store name), I'm not familiar.

H: Oh, I love it. *I love it!* It's a men's, actually it's a men's/ladies clothing store on Kingston Pike. *It's the best*, it's like *gourmet clothes*. Their clothes are *awesome*. . . To me, they are a gourmet-clothing store for men's clothing. . .it's a gourmet-clothing store in Knoxville. *There's no place else I can get what I can get at (store name)*. And each time I've gone I've dropped some chunks of change. And *service is phenomenal!* I have a feeling that those sales people probably are on commission, which is fine. But the service is just outstanding and, talk about *familiarity*. . .And, so when Peter's with me, it's *totally one on one*. . . which *gives me the value* that, I've seen it already, the last time I was in there . . . At (store), when I'm getting the service, *I'm the only person getting attended to, ah, the clothes are the best, the atmosphere is fantastic, you just feel so comfortable, it's just an emotionally, psychologically beautiful comforting store that makes you feel warm and secure. You feel like you're in a womb, because it's just so comfortable mentally and physically and I just absolutely love it. I wouldn't even consider trying another premier men's clothing store in Knoxville now that I've discovered (store). My loyalty is with them for good clothes.*

Clearly, Harry's shopping experience at this store is an emotional experience that he is able to describe in rich text and dialog. Again, the notion of familiarity, which has to be present for a relationship to develop between the consumer and the store, serves as the ground to the more figural notion of the bonding experience.

Harry begins by expressing *love*. This is a meaningful expression as one considers a dyadic relationship and a potential bond. This heartfelt expression conveys both importance and meaning at both an emotional and psychological level. Harry continues by identifying at least three facets that contribute to his explanation of his emotional shopping experience that prompted his dynamic statements. The facets he describes are 1) product, 2) relationship with customer service rep, and 3) level of *service*.

Harry's language clearly reveals how he feels about the product line at this store. He reveals his perceptions by telling us that they carry *gourmet clothes*, his overall assessment of the brands is *awesome*. These are revealing terms as one considers the hermeneutic process. It suggests that Harry attributes not only importance but also high levels of meaning to the brands carried. It is important to note that Harry does not speak to the specifics of the clothing items from a cognitive perspective. For example, his emphasis is not on notions such as the color of the cloths, or the material from which they are made, nor the quality of fit etc. What he does do is try to describe how the store makes him "feel" and what it allows him to experience when he is in the store and involved in a purchasing experience.

The second attribute Harry clearly addresses is that he is very favorably disposed to a *salesperson* with whom he describes *familiarity* and that he is recognized by the sales rep. and welcomed in the store. He expresses how Peter, his salesperson gives him *one-on-one* attention that gives him *value*. The notion of value is developed as the nature of the relationship he has with the sales rep is explained. He gives insight into the difference in this client relationship by sharing how it is comprised of uniquely individual attention that is very pleasing and satisfying to him and allows him to feel valued and special.

The third attribute Harry describes is the service element. He begins by telling us that the service is *outstanding* which in part is achieved by the *one-on-one* individual attention previously described. He likes to be recognized and waited on. His perception is that the sales team offers a higher level of service than competing stores and this adds affective value to his shopping experience.

The three aspects of product, salesperson, and service described by Harry offer insight into the experience that Harry has when he shops at his preferred clothier. It is posited that this positive attitude toward the store, product line, customer service rep, and level of service offer support for the development of a consumer-firm bond.

As Harry continues to describe his shopping experience at the clothier he has set the stage to say what he has been leading up to and he continues with both rich and insightful language. He goes on to say, *“you just feel so comfortable, it’s just an emotionally, psychologically beautiful comforting store that makes you feel warm and secure. You feel like you’re in a womb, because it’s just so comfortable mentally and physically and I absolutely love it,”* and *“my loyalty is with them . . .”* Here Harry describes his attachment and bond experience with the store and does so elegantly.

## CONCLUSION

The notion of human bonding was introduced into the psychology literature in the closeness found in the infant-caregiver relationship by Bowlby (1969/1982, 1973, 1980) who described it as an inherent, deeply-seated latent variable within each of us. Bowlby was the first to explain the bonding and attachment process between two people and assigns it to a central place in our thinking about human relationship development. The



concept of bonding was originally introduced by Bowlby to explain the enhanced proximity and how survival is promoted instinctively and is inherent in an infant.

Bowlby suggested that bonding was an innate, deeply seated desire that is within an infant to develop an intimate closeness or bond with its mother (Vol. 1, 1969). He describes an individual adhering to other party; typically its nurturer for both physical and psychological enhancement. The physical enhancement may be described as necessary succor to promote survival of the infant, or as with more complex notions of enhanced proximity and familiarity, to promote safety and survival and a feeling of wellbeing within the environment. This desire is a motivator that propels the infant to maintain close proximity; this inherent drive is instinctive (Bowlby 1969/1982, 1973, 1980). The emotional elements of the bonding process were offered in Bowlby's (Vol. 2, 1973; see also Vol. 1, Chapter 2) later work that stressed natural cues within an environment that elicited natural responses. These notions described by Bowlby appear to be potentially transferable to the contextual setting of the shopping experience described above by Harry. This study expands these boundaries to suggest that the inherent motivations, dispositions, and closeness found within the infant-caregiver relationship may be similar to those found within the consumer-firm dyadic relationship. The bond that a consumer seeks and develops with a firm in the marketplace provides both a sense of psychological and/or physical benefit and well being from interaction with the firm, perhaps in much the same way an infant derives psychological and physical benefit and well being from its interaction with a nurturer. In a very real sense consumers may go to the marketplace to derive many (perhaps all) of the same psychological, emotional, and physical benefits and well-being they once derived from a

nurturer as an infant. Perhaps one can think of the bond phenomenon as the “glue” that holds the parties in a relationship together. This is not the first time Bowlby’s work has been applied to marketing contexts. Thomson, Macinnis & Park (2005) employ Bowlby’s elements of infant bonding in developing their measure of a consumer’s emotional attachment to a brand.

This paper suggests that the participants’ words reflect a meaningful description of the notion of “proximity” referred by Bowlby (1969/1982, 1973, 1980) and it exists in the marketplace contextual environment. Bowlby contends that infants need proximity or to be able to physically reach their objective (caregiver) in order to feel comforted and bonded. Indeed, it is suggested that the desired bond is a motivating force to encourage proximity. For the infant the drive is to receive succor and psychological nurture from the caregiver to preserve survival. It is suggested here that Harry (as noted in his transcript) may receive some of the same benefits from the physical location of this store. He perceives that he is able to return to the store along a prescribed pattern of behavior knowing he can find products and services that will fulfill both physical and psychological needs. Harry finishes his description of this experience with an unusual metaphor. He simply says he feels like he is in a *womb* when he is in this store having these emotional and psychological experiences.

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Effect of Brand Associations on Consumers' Attitude and Perceived Value

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## Abstract

This paper examines the impact of brand associations on consumers' attitude toward the brand and perceived value. Results indicate that while a brand with a strong brand origin association can benefit (be hurt) in terms of consumer attitude by having a strong (weak) country of manufacture, brands with weak brand origin associations are unaffected by the country of manufacture association. Moreover, consumers perceive higher value for brands with strong country of origin but weak country of manufacture associations. Implications of these results are discussed.

Driving Inferences for an Umbrella Brand Using Claims Involving  
Narrow versus Diverse Product Samples  
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## **Abstract**

Two experiments were conducted to study how consumers generalize a shared attribute from a sample of products made by a company to its overall product line. Under conditions specified by the Similarity-Coverage Model (Osherson, Wilkie, Smith, Lopez and Shafir, 1990), Experiment 1 found that a shared attribute generalizes to more products when items represent a diverse as opposed to narrow sample of members in the company's products. Furthermore, the "diversity effect" is moderated by the perceived typicality of the sample items to the overall category. Experiment 2 replaced the attribute from Experiment 1 with a shared rating of high quality from a reputable consumer products magazine. Essentially the same pattern of results obtained as in Experiment 1. Implications for firms attempting to build quality associations to an umbrella brand are discussed, in addition to directions for future research.

## **Introduction**

Traditional research on brand development and extensions has typically focused on how firms can successfully extend (or block) existing brand associations to a new product (Aaker and Keller, 1990). In contrast, many firms face the opposite problem of building strong brand associations across a wide range of products that they already produce. For example, grocery retailers have historically sold products as diverse as cookies and dishwashing detergent under a single (umbrella) private label that is seen as a low-cost, minimally-packaged alternative to a major brand. Since "value-based" private labels tend to lose market share as personal disposable income increases (Keller, 2003), retailers have attempted to develop "premium" private labels that compete with major brands on the basis of product quality.



Private labels face many obstacles when competing with major brands on quality. Despite the fact that many items sold under private labels have been rated higher in product quality by independent arbiters, major brands have typically been able charge a price premium over a private label because their strong associations to a particular product category enables isolation from competitors (Boyle, 2003; Herr, Farquhar, and Fazio, 1996). By comparison, retailers must avoid associating their private labels with any one category as doing so may impair their ability to build associations with other categories within its product line (Meyvis and Janiszewski, 2004). Although a firm could potentially overcome this problem by developing a series of “sub-brands” across several product categories, the cost to develop and maintain these brands is generally high for the average retailer.

Rather than develop a series of sub-brands, an alternative strategy for firms would be to develop an umbrella brand that is strongly associated with quality across its entire product line. A natural question that arises out of this approach is how a manager might effectively communicate to a consumer that an attribute shared by a sample of the brand’s products (such as quality) generalizes to all members of the brand. For example, how the specific sample items relate to one another may influence consumer perceptions. Findings in the brand extension literature suggest that far extensions were evaluated more favorably from a broad as opposed to narrow brand (Bousch and Loken, 1992, Dacin and Smith, 1994). In the same way, a consumer who learns that a relatively “diverse” versus “narrow” sample of the firm’s products is high in quality is more likely to generalize this information to the entire brand. This could occur simply because a narrow sample may imply that the company’s product expertise is limited to a very specific domain.

However, in other situations, consumers given a diverse but unrelated set of products may not immediately accept that such different products could all be high in quality and ultimately question the claim. Others may accept the quality claim, but in the absence of a reasonable unifying hypothesis, suspect that the underlying causes of quality in the sample products are independent from one another and not easily generalized to the entire brand. The risk of such perceptions underscores the care that a marketer must take when choosing the sample of items from its product line that she believes most effectively communicates overall brand quality. This paper uses principles derived from the marketing literature and from cognitive psychology research on “category-based induction” (Osherson, Wilkie, Smith, Lopez, and Shafir, 1990; Joiner and Loken 1994) in order to gain insights to when and how consumers infer facts known about a sample of products to an overall brand. We first provide a brief overview of this research and test its basic theoretical predictions for diverse versus narrow product samples across two introductory experiments. These experiments provide a basis for future work that could shed light on how such inferences could occur for umbrella brands.

### **Conceptual Background**

The most widely-recognized model of category-based induction is the Similarity-Coverage Model developed by Osherson et al. (1990) because it provides the most parsimonious summary of how individuals make inferences from sample items to an overall category under a well-defined set of assumptions. Three assumptions are of particular importance to the current research. First, a consumer must have a sense of

(product) items contained within that category (brand). Next, both members of the product sample and members of the overall brand must be composed of products from a clearly-defined category (e.g., food). Finally, the attribute-to-be-generalized must be sufficiently vague, meaning that it does not provide information to the individuals about how to make inferences to the overall set. Given that these assumptions hold, the model suggests that consumers will generalize an attribute from one *item* to another to the degree that the former item is similar to the latter. For example, consumers who learn that the peaches and plums produced by the Smith Company are high in quality are more likely to generalize this information to Smith's nectarines rather than to the company's apples (see also Rips, 1975)

Building from this basic machinery, the SCM further suggests that when the full set of items in the category is known (either provided to or retrieved by the participant), participants will generalize an attribute from a sample product to the overall set of products in the brand by first assessing the similarity of the sample item to each member in the overall set. As the sum of the similarities between the sample item and the overall group members increase, participants should be willing to make inferences from the sample to more members of the overall category. Assume for example, that the category "Smith Company food products" consists of [Oranges, Lemons, Limes, Wheat Bread, Tortillas, Cornbread, Chicken]. Participants are expected to make inferences from "oranges" to more members of the category "*Smith Company* food products" compared to "chicken" given the similarity of oranges to lemons and limes. It follows that an attribute common to "chicken" would better generalize to the entire set of *Smith* food products to the degree that the overall set contained more meat or poultry items.

## Hypotheses

### *Diversity*

An important virtue of the SCM is its capacity to account for inferences in which product samples contain more than one item. This enables marketers to directly address how to use diverse versus narrow product samples to communicate overall quality across a product category. According to the SCM, the multi-sample case gives rise to the prediction of an item-sample “diversity effect.” The “diversity effect” suggests that individuals will generalize an attribute to more members of an overall product category (brand) when items in the sample are less similar to one another (i.e., more diverse) but collectively more similar to members of the overall category (i.e., when the sample covers a larger portion of the category).

To illustrate the diversity effect, assume that the set “Smith Company food products” now contains [Oranges, Lemons, Limes, Chicken, Wheat Bread, Tortillas, Cornbread, Chicken, Beef, Pork]. The model predicts that generalizations of the attribute to Smith food products will be higher when participants learn that company’s “oranges, wheat bread, and chicken” contain the attribute as compared to the same information about a relatively narrow set of its products such as “oranges, lemons, and limes.” While the narrow sample may provide strong evidence that the attribute will generalize to all “citrus fruits,” they are not similar enough to Smith’s “meat” and “grain” products to generalize the attribute as strongly to all “Smith Company food products.”

We attempt to replicate the diversity effect across three product category domains (clothing, food, and electronics). Although one might postulate differential effects

between categories (see Rips, 2001), for now we simply treat the categories as replicates of each other while exploring the nature of the differentials that might obtain. Recalling the basic assumptions of the model, we expect a diversity effect to obtain when (a) category members are known to the individual, (b) the items in both the sample and the overall brand can be characterized by a clear product category, and (c) when the attribute-to-be-generalized is sufficiently vague.

*H1: (Diversity Effect).* Participants will increase generalizations of an attribute shared by a set of sample products to the overall category as the sample members become less similar to one another but collectively more similar to members of the overall category. (i.e., when the sample “covers” a larger portion of the category).

### *Typicality*

The impact of the diversity effect could potentially be moderated by the overall typicality of the product item samples. For example, consider two “narrow” product sets from the food category (subcategory: “meats”): if the sample set [Buffalo, Ostrich, Venison] is a less typical product sample of “food” than [Beef, Chicken, Pork], the SCM predicts that inferences of an attribute are likely to be stronger from the latter set given the relatively higher similarity of those items to all members of the meat product category.

The SCM also suggests that the typicality logic from the narrow condition should extend to diverse high typicality samples such as [Oranges, Beef, Wheat Bread] versus diverse low typicality samples [Buffalo, Pomegranates, Quinoa]. However, the formulation of an inference strategy from diverse item samples may be more complex than from narrow item samples. Specifically, participants may be more likely to attend to

the lack of category coherence with the item samples rather than to the similarity of sample items to all members of the set (see Medin, Coley, Storms, and Hayes, 2003 for a related account). This would attenuate an effect of typicality in the diverse condition. Moreover, to the extent that high typicality samples may be difficult to generalize to a category, a diverse sample of low typicality products may generalize more easily to umbrella-branded products in less-related categories (Herr et al., 1996). Hence, we expect no main effect of typicality, but on net expect it to attenuate the diversity effect in the high typicality condition. We do not take a strong position on whether low typicality diverse items engender generalization to more members of the overall category compared to high typicality diverse items and predict:

*H2: (Typicality Main Effect).* High typicality product samples will generalize to a comparable number of items in the overall category as low typicality samples.

*H3: (Diversity\*Typicality Interaction).* High typicality sample items will lead to the generalization of a common attribute to more members of the overall category than low typicality sample items. In the diverse sample case, however, high and low typicality samples should exhibit no difference in generalization of the attribute to the overall category (brand).

Studies examining the SCM view of induction have hitherto evaluated how individuals generalize non-descriptive vague attributes (e.g., DMX-252) to an overall category. As a replication of past studies in the category-based induction literature, Experiment 1 examines the issue in the context of product generalizations using a vague product attribute. The attribute is vague in that it is intended to carry no inherent meaning that might provide an extraneous support to such inferences.

## Experiment 1 (Vague Attribute)

### *Design and Measures*

Participants were provided with a list of eighteen products produced by a company and told that a sample of three of these products contained a vague attribute. They were then asked to indicate which of the remaining fifteen items produced by the company would also contain the vague attribute given the sample information. Generalizations of a vague attribute from a product sample to a company's overall product line was compared across 3 *CATEGORY* domain replicates (Food, Clothing, Electronics), 2 levels of sample item *DIVERSITY* (Diverse sample, Narrow sample), and 2 levels of sample item *TYPICALITY* (High Typicality, Low Typicality). Participants were assigned between subjects to a level of *CATEGORY*, while *DIVERSITY* and *TYPICALITY* were rated within subjects, meaning that individuals answered a series of questions about product sample items from a combination of product samples that were pre-tested to be (diverse or narrow) and (high or low) typicality product samples. The form of the question is displayed in Exhibit 1.

### ***Exhibit 1.***

Fact: All <Product 1> produced by <Company Name 1> contains <vague attribute 1>. Fact: All <Product 2> produced by <Company Name 1> contains <vague attribute 1>.

Fact: All <Product 3> produced by <Company Name 1> contains <vague attribute 1>.

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Conclusion: Circle the items on the list of products produced by <Company  
Name1>  
that contain <blank attribute 1>.

### *Stimuli*

We consulted category-norm data (e.g., Battig and Montague, 1969) as a basic guide to similarity and typicality when selecting the product items for the entire set of the company's products. Of the eighteen products chosen for each product category, six came from one of three subcategories within the product domain. For example, the product domain "food" contains six items each from the subcategories, "fruits," "meats," and "grains." Of these six items, three items were pre-tested as "highly typical" of the subcategory and placed together to form a "narrow" product sample. Another narrow sample was formed using the three "low typicality" members of the product category. This process was repeated for the remaining two subcategories (clothing: tops, bottoms, footwear; electronics: consumer electronics, kitchen appliances, office products). (See Table 1 for a complete listing of the product sets).

One product item was taken from each of the subcategories in order to generate the diverse product samples. This process was repeated three times for each level of typicality, resulting in six questions each for the diversity and narrow conditions, respectively. Therefore, participants made twelve generalization judgments from a product sample to the members of the overall product category as shown in Exhibit 1. In



order to avoid carryover effects across the product sets, the associated company names and the names of the vague attributes were varied across each question. We used generic labels (e.g., SMH-345) for the vague attributes and similar sounding Swedish-American names for the companies (e.g., Anderson, Bergson, Carlson, etc.).

### *Procedure*

Thirty-one students from a private Great Lakes-region university were each compensated \$6.00 to complete a “paper-and-pencil” task which took approximately 25 to 35 minutes to complete. Participants were told, both verbally and with written instructions, that they would answer one question each about twelve different companies that each produce the same set of eighteen products within this category. They were told to assume that the companies made no products in addition to those listed in the set. After completing an example task using an unrelated product domain (furniture), participants studied the product set information and answered one question about each of the twelve companies. Each company represented a product sample from each combination of DIVERSITY with TYPICALITY. Care was taken to ensure that participants were familiar with the definition of each of the products in the set. Following the generalization task, manipulation checks on the subjects were performed to ensure that participants indeed believed that the “diverse” product samples more broadly represented the category domain than the “narrow” product items. The same was done for typical versus atypical items sets. Participants were then debriefed and compensated by the students.

### *Experiment 1 Results*

Table 2 presents the data across the levels of aggregation in which significant effects obtained. As hypothesized, DIVERSITY showed a main effect such that generalization of a vague attribute to more members of the entire product set than narrow samples ( $M_{\text{Diverse}} = 5.12$ ,  $M_{\text{Narrow}} = 1.85$ ;  $F(1, 28) = 33.69$ ,  $p < 0.0001$ ). Moreover, generalizations did not appear to be affected by a main effect of TYPICALITY as expected ( $M_{\text{HighTyp}} = 3.45$ ,  $M_{\text{LowTyp}} = 3.52$ ; n.s). However, there was a DIVERSITY\*TYPICALITY interaction ( $F(1, 28) = 4.48$ ,  $p < 0.04$ ). We hypothesized that the magnitude of the diversity effect would shrink in the high as opposed to low typicality condition. Although this pattern obtained, the difference between high and low typicality narrow items was directionally consistent, but not significant ( $M_{\text{NarrowHT}} = 2.06$ ,  $M_{\text{NarrowLT}} = 1.64$ , n.s). The effect also indicates that low typicality diverse items did in fact yield more generalizations to members of the overall product category than high typicality diverse items ( $M_{\text{DiverseHT}} = 4.83$ ,  $M_{\text{DiverseLT}} = 5.89$ ,  $p < 0.044$ ).

Although we did not specifically postulate differences between category domains, a CATEGORY main effect was observed ( $F(2, 28) = 5.43$ ,  $p < 0.01$ ). Specifically, the food category appears to generate significantly higher generalizations than both the clothing and electronics domains. Moreover, the difference between the clothing and electronics conditions was also significant ( $M_{\text{Food}} = 4.92$ ,  $M_{\text{Clothing}} = 2.26$ ,  $M_{\text{Electronics}} = 3.4$ ;  $p < 0.01$  for all groups).

The data also revealed a DIVERSITY\*TYPICALITY\*CATEGORY ( $F(2, 28) = 4.64$ ,  $p < 0.02$ ) interaction. The difference between generalizations from diverse versus narrow sample food products was larger than the same differences in the clothing and

electronics product categories. However, a post-hoc means comparison indicates that only the significant differences between high and low typicality samples were in the clothing conditions. Specifically, participants were also more willing to generalize from diverse low typicality clothing products ( $M_{\text{ClothingDiverseLT}} = 5.77$ ) compared to diverse high typicality clothing products ( $M_{\text{ClothingDiverseHT}} = 4.07$ ,  $p < .0007$ ). In the narrow condition, high typical clothing items yielded more generalizations than low typicality clothing items ( $M_{\text{ClothingNarrowLT}} = 2.53$ ,  $M_{\text{ClothingNarrowHT}} = 1.23$ ). We return to these results in the *General Discussion* section.

## **Experiment 2 (Quality Ratings)**

Inferences involving vague attributes are characteristic of the empirical tests of the SCM in the cognitive psychology literature. Experiment 1 shows that the basic diversity effect replicates with product stimuli (see also Joiner and Loken, 1994) and also finds a DIVERSITY\*TYPICALITY interaction. We now examine whether similar effects might obtain when vague attributes are replaced with quality ratings that may provide some intuitive basis for an inferential generalization. We therefore replicated Experiment 2 using an identical set of procedures except that a vague attribute was replaced with a quality rating. Exhibit 2 displays the form of the items shown. Thirty-three subjects from a subject pool identical to the previous experiment participated in this task. They were told that three of the sample products each received a “four-star (highest) rating” from “Smart-Buy Magazine,” a reputable product review magazine that is comparable in credibility to “Consumer Reports.” As a result, participants in this study

are asked to choose which of the remaining items in the set also received a four-star rating from this magazine.

***Exhibit 1.***

Fact: All <Product 1> produced by <Company Name 1> received a 4-star rating. Fact: All <Product 2> produced by <Company Name 1> received a 4-star rating.

Fact: All <Product 3> produced by <Company Name 1> received a 4-star rating.

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Conclusion: Circle the items on the list of products produced by <Company Name1> that also received a 4-star rating.

**Experiment 2 Results**

Results for Experiment 2 are summarized in Table 3. As in Experiment 1, a main effect of DIVERSITY was obtained ( $M_{Diverse} = 4.03$ ,  $M_{Narrow} = 1.56$ ;  $F(1,30) = 81.55$ ,  $p < 0.0001$ ). As hypothesized, there was once again no main effect of TYPICALITY ( $M_{HighTyp} = 2.83$ ,  $M_{LowTyp} = 2.75$ ; n.s) although a DIVERSITY\*TYPICALITY interaction was observed ( $F(1,30) = 6.24$ ,  $p < 0.02$ ). The data followed the pattern of net shrinkage in the magnitude of the diversity effect in the high as opposed to low typicality condition. However, the difference between high and low typicality diverse items was directionally

consistent with our hypothesis but only marginally significant ( $M_{DIVHT} = 3.83$ ,  $M_{DIVLT} = 4.23$ ,  $p < 0.10$ ). By contrast, high typicality narrow items yielded more generalizations to members of the overall product category than low typicality narrow sample items ( $M_{narrowHT} = 2.06$ ,  $M_{narrowLT} = 1.64$ ,  $p < 0.01$ ).

Experiment 2 exhibited a significant CATEGORY main effect ( $F(2, 30) = 4.38$ ,  $p < 0.02$ ). Specifically, the food category appears to generate significantly higher generalizations than both the clothing and electronics domains ( $p < .0001$  for both differences). Moreover, the difference between the clothing and electronics conditions did not exhibit a significant difference from one another ( $M_{Food} = 3.71$ ,  $M_{Clothing} = 2.38$ ,  $M_{Electronics} = 2.42$ ). Unlike Experiment 1, the data revealed a DIVERSITY\*CATEGORY interaction ( $F(2, 30) = 7.52$ ,  $p < 0.002$ ). Although there were no significant differences between categories in the narrow condition ( $M_{FNarrow} = 1.6$ ,  $M_{CNarrow} = 1.5$ ,  $M_{ENarrow} = 1.5$ ; n.s) a post-hoc analysis suggests that generalizations for food items were amplified in the diverse condition compared to clothing and electronics, respectively ( $M_{FDiverse} = 5.7$ ,  $M_{CDiverse} = 3.25$ ,  $M_{EDiverse} = 3.3$ ;  $p < 0.01$ ).

Finally, the quality rating data does not indicate a DIVERSITY \* TYPICALITY \* CATEGORY interaction ( $F(2,30) = 4.64$ , n.s.). However, the pattern of results from the clothing follows those found in Experiment 1. Specifically, participants were also more willing to generalize from diverse low typicality clothing products ( $M_{ClothingDivLT} = 5.77$ ) compared to diverse high typicality clothing products ( $M_{ClothingDivHT} = 4.07$ ,  $p < .01$ ).

## General Discussion

## *Discussion of Results*

The primary purpose of this paper was to examine whether models from research on category-based induction could be used to understand how consumers utilize quality information from a sample of products in an umbrella brand in order to make quality inferences about all products in the brand. These models have traditionally been based on experiments that examine how a vague property shared between a sample of category members generalizes to all members of a set. The categories in these studies have traditionally been “natural kinds” such as “mammals” or “food.” Our results indicate that the “diversity effect” predicted by the Similarity-Coverage Model for these types of items (e.g., Osherson et al., 1990) replicate across three product categories regardless of whether the generalized property was a vague attribute or a quality rating.

We further examined whether the typicality of the item sample would moderate the diversity effect. Although our studies support the diversity effect for inferences of quality from sample items to an overall category, neither experiment produced a main effect of product typicality predicted by the SCM. We suggested that a typicality main effect may not occur if participants assess the causal coherence between the sample item members (Medin, Coley, Storms, and Hayes, 2003; see also Sloman, 1994). Categories can be useful in that they can support several potential explanations for why a set of items may share a given attribute. If sample items are not clearly related by a category, the lack of item coherence may cue search for an alternative relationship between the items in order to justify generalization to the overall product set. When coherence judgments are activated, the search for an appropriate rationale may force participants to spend less time attending to the level of sample typicality when making an inference judgment of an

attribute to the overall category. Since narrow samples are tightly-associated with a subgroup (e.g., fruits) of an overall category (e.g., food), coherence judgments are less-likely to be triggered than in diverse samples. Therefore we expect no differences in generalizations between high and low typicality samples in the diverse condition.

However, we entertained (but did not explicitly hypothesize) the possibility that a diverse sample of low typicality products might actually promote more attribute/quality rating generalizations to an overall category in some conditions. For example, participants may examine typicality level if a sufficient justification for generalizations was not determined. As one participant succinctly noted during debriefing, “it’s not clear to me whether this (a diverse low typicality sample) information should mean that the attribute is so basic that it applies to all product, or if it means that this (shared attribute relationship) is just a fluke (that applies to none of the other products).” Whether participants prefer one inference rule over the other may depend on whether the claim that an attribute (quality rating) is shared between sample members is perceived to be credible by the participant. Future studies may explore whether quality inferences from a sample are impacted by whether the producer makes a quality claim or whether the claim is substantiated by an independent arbiter of product quality.

Indeed, a two-way interaction between diversity and typicality was observed in both experiments. While the results contrast from the expectations of the SCM, they are not entirely consistent with our own line of reasoning. First, our prediction was supported only in the clothing conditions for vague attributes, although a directionally consistent pattern was observed for quality inferences. We also note that high typicality items actually promoted fewer generalizations to the overall category than low typicality items

for diverse clothing items. In the food and electronics conditions, however, the patterns were consistent with a main effect of diversity but no effect of typicality across both experiments. The key difference is that high typicality narrow items did not promote more generalization to the overall category than low typicality narrow items. It is possible that high and low level typicality differences did not occur because the need to justify a claim occurs regardless of whether the sample is narrow or diverse. As a result, participants may simply have used the “tightly-wound” subcategory cue as a justification to apply an attribute to the all members of that subcategory, regardless of typicality. More research is required to further understand the relationship between typicality level, sample-item coherence, and the underlying credibility of sample item claims as inference drivers. In addition to these relationships, future studies must also examine the case when samples consist of items from different overall categories. These studies will provide insight into how firms can use information about its existing product-base to build quality associations with its overall brand.

Although product categories were treated as replicates of one another in this study, it is not surprising that some categories types might promote generalization from samples-to-category generalizations more easily than others. Food items were shown to promote more generalizations than the clothing and electronics categories. This may have occurred because the food items used in this study were natural kinds, which tend to exhibit more coherent and deeply-organized category structures that aid inferences more than relatively less-defined categories such as electronics and clothing items (Barsalou, 1983, Rips, 2001). Further research in category-based inference should explore how and



why category coherence and the organization influences generalizations from product samples to the overall brand.

### **Conclusions**

The findings of these studies support a strategy of using diverse samples of products to promote overall brand quality. At the same time, the marketing context in which consumers actually encounter product claims and make inferences about umbrella brands are likely to be more varied than the structured inference situations examined in these studies. These assumptions suggest several potential avenues for future research. For example, in the present studies product samples were manipulated within-subjects. The participants could have directly compared the similarity of the narrow and diverse items samples with one another. In a between-subjects setting, such comparisons are likely to be less salient and consumers may instead use alternative memory-based or situational anchors for such inferences. Future experiments should examine this possibility.

A second extension may explore circumstances in which participants are asked to draw general holistic impressions of the overall brand category after learning about the features or quality ratings of the sample products. This would contrast with the present study in which subjects could directly compare the sample item to each member of the products. Such comparisons may also elicit different reasoning processes. Furthermore, the nature of these processes may differ in stimulus versus memory-based conditions. The SCM also suggests that items within a category exert more weight on inferences to the degree that they are available in memory. Experiments that examine how claims made regarding item samples are generalized to memory-based members of a brand may

provide insights to the process of how consumers draw such inferences. In all, these experiments suggest further studies that can be explored in order to provide managers with a more complete view of the factors that impact inferences about an umbrella brand's characteristics based upon samples from the product line.

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## Session 3B (Mirage Bar)

### Interpreting Strategic Delay in Consumer Negotiations: (Un)trustworthy Behaviors and (Un)trustworthy Faces

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Delayed responses to offers are often used strategically in consumer negotiations (Cramton 1991). For instance, automobile salespersons often make customers wait while they ostensibly “consult with the manager” in response to an offer. The delay is inherently an ambiguous cue and its impact may depend on how bargaining opponents interpret it. From the consumer’s perspective, the delay may signal a salesperson/dealer in conflict, such that the acceptance of the offer reflects a good deal. Alternatively the “foot-dragging” may simply reflect an attempt to bluff or pressurize by feigned lack of interest or an effort to gain time to explore outside options (Srivastava and Oza 2005).

Prior research suggests that trustworthiness assessments often influence interpretation of ambiguous communications or behaviors during negotiation interactions. These interpretations then influence both bargaining processes and outcomes (Srivastava and Chakravarti 2005). One set trustworthiness cues may relate to a prior behavioral episode or history (e.g., Berg et al. 1995). At the same time, recent work in social neuroscience (Langlois et al. 2000) suggests that the consumers searching for cues that resolve ambiguity may rely (consciously or nonconsciously) on proximal cues such as whether or not an opponent’s facial features appear trustworthy. Although potentially fallible, such trustworthiness inferences may drive how a delay is interpreted and influence subsequent negotiation processes and outcomes.

The present research examines how strategic delays are interpreted based on cues involving (un)trustworthy prior behaviors and (un)trustworthy faces and how these interpretations influence anticipated bargaining outcomes. The studies are set in a common automobile purchase negotiation context in which the subject plays the buyer negotiating with a hypothetical salesperson. The behavior cue is manipulated via a scenario describing a prior hearsay episode (involving the salesperson) that may be construed as trustworthy or untrustworthy. The facial cues are manipulated using front face pictures of the purported salesperson, calibrated to be perceived as honest or dishonest. Delay (wait time as the salesperson consults his manager) is manipulated at two levels (short and long). The dependent measures involve an anticipated counteroffer, evaluations of the salesperson’s trustworthiness and specific ascribed motives and future purchase intentions.

We find no main effect of strategic delay, prior behavior or facial cue on anticipated counteroffers. However, delay is implicated in significant two-way and three-way interactions showing that its effect is contingent on both the prior behavior and the facial cue. Untrustworthy (versus trustworthy) prior behavior leads to high anticipated price outcomes and poorer assessments of the salesperson’s trustworthiness and motives irrespective of the level of facial cue or delay. However, with trustworthy prior behavior, these effects are contingent on both the salesperson’s facial characteristics and the length of delay. A longer delay is construed positively (lower prices and higher trust) when the face is honest but construed negatively when

the face is dishonest. The effects appear to stem from processes below the threshold of subject awareness.

That's the Last Time I Will Do Business Here: The Negativity of Consumer Responses to Rejection

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## Abstract

The current research aims to understand the complexity of consumer reactions to rejection. Three studies were conducted that illustrated the systematically negative reactions of consumers who were rejected by an organization. Study 1 demonstrated that even in the absence of financial consequences, consumers exhibited negative reactions to rejection. Study 2 demonstrated the negative response to rejection even in the face of restrictive organizational standards for admittance. The final study indicated that if the circumstances of the rejection were fair, the negative response was somewhat mitigated, but the negative effect remained.

## THAT'S THE LAST TIME I WILL DO BUSINESS HERE: THE NEGATIVITY OF CONSUMER RESPONSES TO REJECTION

As the US moves towards more of a service economy (Schultz 1996), increasing research attention has been devoted to understanding the important components of the service encounter. Initial work was aimed at understanding consumer satisfaction and its underpinnings (e.g. Oliver 1980) and more recently, attention has been directed to the diagnosis of favorable and unfavorable service incidents (Bitner, Booms and Tetreault 1990). In addition, researchers have investigated other similarly negative service encounters such as consumer penalties, wherein consumers are penalized for failing to complete a previously agreed upon purchase agreement (e.g. late DVD rental fees, penalties for the early withdrawal of investments) (McCarthy and Fram 2000; Kim and Smith 2005). However, what had been lacking throughout the literature is an examination of the ultimate service failure, a consumer's rejection from the organization. Despite some attention to this phenomenon in the organizational behavior (Brockner, Tyler and Cooper-Schneider (1992) and psychology literatures (Ployhart, Ryan and Bennett 1999), there has been no investigation of consumer rejection in marketing.

Recent work has begun to explore issues stemming from the organization punishing or leveling negative actions against its' own consumers. McCarthy and Fram (2000) note that along with increasing attention to relationship marketing and building customer loyalty, there has been similar growth in the administration of consumer penalties. A consumer penalty refers to the assignment of a fee to consumers who fail in some aspects of their service agreements with the company. Kim and Smith (2005) argue that the use of consumer penalties is a form of economic punishment that discourages undesirable behavior from the consumer and can range from financial penalties to the removal of privileges or the denial of service.



The relatively new attention to the issue of consumer penalties has demonstrated that there are a host of negative consumer responses including a reduced willingness to patronize the establishment in the future and more negative word-of-mouth communications (McCarthy and Fram 2000). Despite the strides that have been made in exploring negative consumer experiences, no research has carried this analysis further and examined the ultimate service failure or consumer penalty, rejection by the organization.

### **The Impact of Rejection on Consumers**

Rejection is a social construction in which individuals are excluded, ostracized or rejection by particular individuals or by an entire group (Baumeister and Leary 1995). This characteristic is the same in consumer settings where the rejection can come from the service provider or the organization as a whole. In addition, the magnitude of the rejection can vary in social settings from being chosen last to join a group on a particular task (Bourgeois and Leary 2001) to being denied a tenure track position (Gilliland, Groth, Baker, Dewm Polly and Landgon 2001). In a consumer setting, the same varied consequences occur and can range from not being accepted for a gym membership to being denied credit or insurance. Therefore, consumer rejection is defined as the denial of membership, service or privileges by the organization to an individual. Examples of consumer rejection can include being rejected for credit, denied membership to certain clubs, or refused service by health practitioners. There is a great deal of evidence in psychology that individuals react badly to interpersonal rejection (e.g. Baumeister and Leary 1995), but it is less clear what impact organizational rejection will have on consumers.

Research on social rejection has argued that the fear of rejection stems from a fundamental need to belong (Baumeister and Leary 1995). When a person feels that they have been rejected, they experience a decrease in self-esteem and greater negative affect (Leary et al.

1995). While consumer research has not investigated consumer reactions to rejection, the service literature has demonstrated the negative reactions of consumers to service failures (Kim and Smith 2005; McCarthy and Fram 2000). Given that consumer rejection is likely one of the most negative forms of service failure, consumer reactions will be uniformly negative.

### **STUDY 1: DISENTANGLING REJECTION FROM ITS TANGIBLE CONSEQUENCES**

One important issue relevant to consumer rejection is the extent to which rejection is associated with tangible consequences. Oftentimes, rejection for a credit card or personal loan has consequences that go beyond the mere act of rejection, such as not being able to make a particular purchase or failing to qualify for the incentive system associated with a credit card. The goal of the first study was to disentangle the effect of the consequences of rejection and the rejection itself on consumer reactions. This was achieved by varying whether or not a rejection had financially deleterious consequences.

Consumer responses to rejection can potentially take a number of different forms. To start, consumers' are likely to react to both the tangible consequences of rejection and the rejection itself. Reactions to the tangible consequences of rejection are likely to be characterized by (dis)satisfaction with the outcome. In contrast, the rejection itself is likely to threaten consumers' self-esteem (Baumeister and Leary 1995), provoking a variety of coping responses such as derogating the firm. Moreover, rejection may well have broader implications on behavioral variables designed to protect consumers from similar incidents. Specifically, it is predicted that rejected consumers will be more likely to avoid future interactions with the firm. Further, if rejection occurs in the context of a purchase, consumers should be less satisfied with their purchase now that it serves as a reminder of their rejecting experience.

*Method.* This study used a 2 (outcome: acceptance vs. rejection) X 2 (financial consequences: high vs. low) between-subjects factorial design. Participants read a scenario that described shopping for a jacket. While making their purchase, the salesclerk informed consumers that they could apply for an in-store credit card. Consumers in the financial consequences condition were told that they would receive 15% off their purchases in the first month if their application was approved in addition to points earned towards future purchases. Consumers in the low financial consequences condition received no information about the financial benefit of the credit card and were only informed that the card would allow them to collect points.

*Measures.* Following the scenario, participants completed measures of their attitudes toward the store ( $r = 0.92, p < .001$ ) and the salesclerk ( $r = 0.94, p < .001$ ), purchase satisfaction ( $\alpha = .96$ ), behavioral intentions ( $r = .92, p < .001$ ), their affective response ( $\alpha = .94$ ), and internal vs. external attributions (single-item measures). All items except those in the affective inventory were rated along 7-point scales. The attitude measures consisted of two items anchored by favorable/unfavorable and positive/negative. Purchase satisfaction consisted of five items (satisfied, happy, delighted, excited, and pleased) taken from Oliver (1980). Behavioral intentions consisted of two items measuring the likelihood that consumers' would go back to the store again and the extent to which they would like to be a customer in the future. Affect was measured using an affective inventory of 10 items (happy, angry, upset, annoyed, positive, sad, irritated, delighted, pleased, and embarrassed), rated on 4-point scales. Attributions were assessed with three separate items that measured the extent to which participants felt the result of their application was due to them, due to the store, or due to the salesclerk. Finally, two manipulation checks assessed whether participants were aware of the result of their application and the benefits associated with the credit card.

*Results and Discussion.* Eighty-eight participants (41 men and 47 women) participated in return for credit. Ninety-four percent of participants correctly identified whether their application was approved or denied ( $\chi^2(1, 88) = 69.15, p < .001$ ) and 90% of participants recognized whether or not the credit card conferred financial benefits ( $\chi^2(1, 88) = 56.33, p < .001$ ).

There were main effects of rejection on all dependent variables except the two external attribution measures, which showed no significant effects. Consumer attitudes towards the store and salesclerk were significantly more negative when their credit application was denied ( $M_s = 3.42$  vs.  $5.82$  and  $3.87$  vs.  $5.77$  respectively;  $F_s(1, 84) = 78.31$  and  $42.99, p_s < .001$ ). Consumers were less satisfied with their purchase ( $M_s = 4.11$  vs.  $6.05$ ;  $F(1, 84) = 56.49, p < .001$ ), suffered lower affect ( $M_s = 2.04$  vs.  $3.46$ ;  $F(1, 84) = 211.54, p < .001$ ), were less likely to make future purchases from the store ( $M_s = 3.35$  vs.  $5.02$ ;  $F(1, 84) = 59.28, p < .001$ ), and claimed less personal responsibility for the rejection than acceptance ( $M_s = 3.39$  vs.  $4.36$ ;  $F(1, 84) = 5.41, p = .022$ ). There was also a main effect of financial benefit on satisfaction ( $F(1, 84) = 4.50, p = .037$ ). However, this was qualified by a significant interaction ( $F(1, 84) = 5.62, p = .020$ ) that indicated the effect of rejection on satisfaction was greater when it was compounded with financial consequences ( $M_s = 3.54$  vs.  $6.08$  when there were financial consequences and  $4.69$  vs.  $6.01$  when there were not). Additional analyses indicated that the effects of rejection on all dependent variables were mediated by affect. Only the effect of rejection on satisfaction when there were financial consequences was not affectively mediated.

Importantly, rejection appeared to exert a powerful influence even when there were no tangible consequences. Moreover, these reactions appeared to be precipitated by a powerful negative affective response to rejection. Even internal attributions were mediated by affect, suggesting that denial was perhaps a response designed to lessen negative affect. However, two

pieces of evidence appear to refute this possibility. First, internal attributions do not mediate the effect of rejection on consumers' affective response. Second, of those who were rejected, consumers who felt less personally responsible (as determined by a median split) were no less likely to experience negative affect ( $p > .50$ ). These findings seem to indicate that while denial of personal responsibility was a response to rejection, it did not appear to mitigate negative affect.

## **STUDY 2: LESSENING THE STING OF REJECTION**

Consistent with the fundamental attribution error (e.g. Miller, Ashton, and Mishal 1990), participants in the first study were less likely to believe they were responsible for rejection than approval. While this may have been designed to lessen the negative impact of rejection, the evidence suggested that it was not particularly effective. The purpose of study 2 therefore, is to further examine the role of attributions in determining consumers' response to rejection. Specifically, we sought to determine whether information that would indicate consumers were objectively less likely to be responsible for a rejection would reduce the negative impact of the rejection. According to Kelley's covariation model of attribution (1973) three types of causal information are required to make an attribution: distinctiveness, consensus, and consistency information. We focus on consensus information, which refers to the extent to which other peoples' experiences with a particular stimulus are similar. In the context of rejection, consensus information would relate to the success or failure of other individuals in the same situation. When many other people are rejected, approval, but not rejection should lead to higher internal attributions and rejection should be less painful. When few other people are rejected, rejection, but not approval should lead to higher internal attributions and a more painful rejection.

*Method.* This study used a 2 (outcome: acceptance vs. rejection) X 2 (consensus information: low vs. high) between-subjects factorial design. Participants read a scenario in

which they were invited to apply for an in-store credit card while purchasing a jacket (no immediate financial benefit was associated with the credit card). The salesclerk informed consumers that the overall rejection rates for the store credit card were either 30% (low consensus) or 70% (high consensus).

*Measures.* The same measures were used as in study 1 with an additional check asked consumers about the overall rejection rates for the credit card.

*Results and Discussion.* Eighty-two participants (38 men and 44 women) participated in return for credit towards their course. Ninety-eight percent of participants correctly identified whether their application was approved or denied ( $\chi^2(1, 82) = 74.27, p < .001$ ) and 87% correctly recalled the rejection rate ( $\chi^2(1, 82) = 74.99, p < .001$ ).

Consistent with study 1, consumer attitudes towards the store and salesclerk were significantly more negative when their credit application was denied ( $M_s = 3.70$  vs.  $5.22$  and  $3.98$  vs.  $5.32$  respectively;  $F_s(1, 78) = 20.71$  and  $18.23, p_s < .001$ ). They were also less satisfied with their purchase ( $M_s = 4.79$  vs.  $5.64$ ;  $F(1, 78) = 10.22, p < .01$ ), suffered lower affect ( $M_s = 2.24$  vs.  $3.24$ ;  $F(1, 78) = 59.64, p < .001$ ), and were less likely to make future purchases from the store ( $M_s = 3.52$  vs.  $4.48$ ;  $F(1, 78) = 16.18, p < .001$ ). Once again, additional analyses indicated that the effect of rejection on the dependent variables appeared to be mediated by consumers' affective response to the rejection. No other effects were significant on these variables and there were no effects on the attribution measure.

It is possible that consumers were unable to fully appreciate the implications of the rejection rate information. However, an attributional stability measure that asked participants how likely it was that they would be approved or rejected should they apply again, showed significant main effects of both the rejection and rejection rate manipulations ( $F_s(1, 78) = 31.35$

and 13.07,  $ps < .001$ ). Participants thought they were more likely to be approved in a subsequent application had they been approved the first time around ( $Ms = 5.57$  vs. 3.63) and when the overall rejection rate was lower ( $Ms = 5.23$  vs. 3.97), suggesting that participants were indeed aware of the implications of the rejection rate information.

Overall, the results confirmed the negative effects of consumer rejection. However, consumers' affective response to rejection appeared not to be influenced by objective information that indicated consumers were less responsible for the result. Additional evidence further suggested this was not because consumers did not understand the implications of the rejection rate information. Rather, rejection appeared to be associated with an immediate and powerful affective response that was not influenced by attributional reasoning, but did give rise to a variety of negative attitudes and behaviors.

### **STUDY 3: DOES FAIRNESS MAKE IT BETTER?**

Both study 1 and study 2 demonstrated that rejection has a potent influence on consumers' reactions. Moreover, the results seemed to suggest that reactions to rejection were largely driven by consumers' affective response, rather than an attributional assessment of the situation. However, it is possible that consumers' assessment of rejection involves more than simple attributions. One important and related judgment is that of fairness. Fairness has been shown to exert a powerful influence on satisfaction (Oliver 1980) and intentions to purchase (Campbell 1999). As such, the fairness of a rejection may well influence consumers' reactions to the rejection. The purpose of the current study was twofold: first, to determine whether fairness moderates consumers' response to rejection. Second, to examine the psychological processes involved in assessing the fairness of rejection.

In marketing, the majority of the work on fairness has focused on prices. However, there is a large body of research in organizational psychology that has demonstrated that procedures and treatment are also important components of fairness (e.g. Brockner, Tyler and Cooper-Schneider 1992). One of the common themes to this work is that unfairness stems from the failure of an outcome or treatment to meet some agreed upon or expected standard. For example, prices that are above the reference price tend to be considered unfair (Thaler 1985), as do procedures that fail to conform to certain standards (Leventhal 1980). Rejection coupled with consumers' perception that they met the criteria is likely to be considered unfair. We test the hypothesis that when consumers believe they have met the criteria for acceptance, rejection will be considered less fair than when consumers believe they did not meet the criteria. We expect fairness to moderate the effect of rejection on attitudes and behavioral intentions. However, it seems unlikely that even fair rejection will reduce consumers' affective response.

*Method.* This study used a 2 (Criteria for acceptance: high vs. low) X 2 (Consumers' standard: high vs. low) between subjects experimental design. Participants imagined that they had gone to a local nightclub to meet their friends. The club was either a prestigious (high criteria for acceptance) or a casual, inexpensive club (low criteria for acceptance). That evening, consumers had either dressed nicely (high standard) or casually (low standard). In all instances, the bouncer at the club informed consumers that did not meet the admittance criteria.

*Measures.* Participants completed the attitude and affect measures used previously. Two manipulation checks asked participants about the admittance criteria and their dress.

*Results and Discussion.* Eighty-six participants (44 men and 42 women) participated in return for credit towards their course. Eighty-seven percent of participants correctly recalled



whether the nightclub was prestigious or casual ( $\chi^2(1, 86) = 65.62, p < .001$ ) and 86% correctly remembered whether they were wearing smart or casual clothes ( $\chi^2(1, 86) = 60.87, p < .001$ ).

As expected, consumers found it less fair when they were rejected from a nightclub because they did not meet the dress code when they were wearing smart clothes than casual clothes ( $M_s = 3.73$  vs.  $4.94$ ;  $F(1, 81) = 11.55, p < .01$ ). Moreover, they tended to find it less fair when the nightclub was casual ( $M_s = 4.01$  vs.  $4.67$ ;  $F(1, 81) = 3.43, p = .068$ ). These findings indicated that the fairness of the rejection depended on the extent to which consumers believed they met or did not meet the standards for acceptance. Furthermore, consumers' attitude towards the bouncer and the nightclub was more positive when they were rejected wearing casual clothes than smart clothes ( $M_s = 3.11$  vs.  $2.40$  &  $3.81$  vs.  $2.88$  respectively;  $F_s(1, 81) = 4.64$  &  $7.44, p_s < .05$  &  $.01$ ), suggesting that fairness moderated the effects of rejection on attitudes. Finally, there were no effects on the affect measure (it was consistently low: overall mean =  $1.63$  on a 4-point scale), consistent with the notion that consumers suffer an immediate and negative affective reaction to rejection.

### **General Discussion**

Three studies demonstrated that consumers react extremely negatively to rejection – they suffer negative affect, which creates unfavorable attitudes towards the store and its employees, reduces purchase satisfaction and lowers intentions to repurchase. Even when there were no tangible consequences associated with rejection (study 1), extremely high rejection rates (study 2), or the rejection was fair (study 3), consumers still appeared to find rejection upsetting. Despite the fact that consumers consistently externalized rejection and internalized acceptance, we found little evidence that consumers who were less likely to make internal attributions (whether within-subject differences or experimentally induced) experienced less negative affect,

suggesting that externalizing the reason for rejection does little to ameliorate the effects. Finally, it did appear that fair rejection helped reduce negative attitudes towards the source of the rejection, indicating that consumers were capable of restricting the influence of their rather immediate affective reaction.

Overall, these negative responses suggest that more attention is required for organizations to better manage how they reject consumers. Further research is required to examine the effect of rejection on consumers' self-esteem as well as differences in the way high and low trait self-esteem consumers are likely to react to rejection. Future research may also want to determine if responses to rejection differ for loyal and non-loyal consumers. In organizational behavior, it has been demonstrated that organizational members with more commitment experience more negative reactions to rejection (Brockner, Tyler and Cooper-Schneider 1992). This suggests that loyal consumers may even experience more negative reactions to rejection than consumers without the same investment.

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Attraction, Repulsion, and Attribute Representation  
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## Abstract

We show that the magnitude and even direction of context effects are sensitive to the manner in which the attributes of choice options are represented. When attributes were represented numerically, as they typically are, we found strong attraction effects. However, when one attribute was represented graphically (e.g. as a *photo* of the image quality; or as the *shaded area* of a probability wheel), we found either no attraction effect, or a significant effect in the opposite direction—which we termed the “repulsion effect.” Psychological mechanisms underlying these reversals of contextual effects are discussed.

## ATTRACTION, REPULSION, AND ATTRIBUTE REPRESENTATION

Tom stops for a soft serve ice cream on his way home from work every day. Typically, vanilla and chocolate are the only two available flavors. In those cases, Tom always chooses chocolate. However, sometimes strawberry is also available, and when it is, Tom chooses vanilla.

Tom's behavior defies common sense. It also violates the *regularity* axiom of rational choice models, which stipulates that the probability of choosing an option (e.g. vanilla), cannot be increased by adding options (e.g. strawberry) to the choice set (see Luce 1959; Tversky 1972). It is not surprising, therefore, that considerable attention has been devoted to demonstrations of instances in which a third option *does* increase the choice share of one of the other two (see Huber, Payne, & Puto 1982).

Unlike the ice cream thought experiment, such demonstrations typically involve the introduction of a third option which is similar to one of the original two options, but inferior to it in some way (e.g. "bad chocolate"). Moreover, in nearly every demonstration, the inferior third option (the "decoy") increases the choice share of the option with which is it more similar (the "target"), at the expense of the other option (the "competitor"), termed the "attraction effect." However, one can easily imagine that if "bad chocolate" ice cream (something similar to chocolate but distinctly less appetizing) were added to the core choice set of vanilla and chocolate, the opposite effect would occur—the concept of chocolate would be tainted; the decoy would actually *repel* people from the target option.

What, then, determines whether *attraction* effects or *repulsion* effects prevail? This is the question we will address in this paper. We begin by examining psychological mechanisms advanced to explain the attraction effect, which is, by a gigantic margin, the more widely

researched phenomenon. We then present two experiments in which we influenced contextual effects merely by modifying the manner in which attributes were represented. We found that attraction effects tend to dominate when the attributes are represented numerically, whereas repulsion effects are more likely to prevail when the product's attributes are graphically represented or actually experienced.

### The Psychology of the Attraction Effect

The attraction effect has been explained in various ways. By one account (sometimes called the *frequency effect*), consumers infer the importance of an attribute from the relative frequency of products that have comparatively high values along that attribute. For example, if two of three stereos (say, the target and the decoy) have high “resonance” but low “clarity”, consumers will infer that resonance is the more important attribute, and will correspondingly give more weight to that dimension, and thereby be more inclined to choose that target (Ariely & Wallsten 1995; Huber et. al. 1982; Wedell 1991; Wernerfelt, 1995).<sup>1</sup> Others have invoked a *range effect* (Huber et. al. 1982; Parducci 1974), whereby the addition of a strongly dominated decoy (which is even worse on the attribute on which the target is weaker), extends the considered range of attribute values, and thereby makes the target's deficiency along this attribute seem less significant. The *compromise effect* is offered as a third explanation (Simonson & Tversky 1992). When an unattractive decoy option is relatively inferior to the

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<sup>1</sup> Wernerfelt (1995) posited that an increase in the number of options with high values on a particular attribute signals to the rational decision-maker that this attribute is what most people in the market consider important. However, if people prefer options that are more “unique”— that occupy a particular region in attribute space by themselves – the decoy would have the opposite effect (Tian, Bearden, & Hunter 2001). Although a need for uniqueness has been shown in some studies (e.g. Ariely & Levav 2000; Simonson & Nowlis 2000), it has not been linked to the presence or absence of the attraction effect, *per se*.



target but not strictly dominated by it (Huber & Puto 1983), the target will seem like a sensible or safe compromise option (see Kamenica 2005, who terms this the “Goldilocks” effect). A fourth explanation is *reason based choice*. Simonson (1989) found a greater attraction effect when participants were told they had to justify their choices to a third party, and proposed that the target’s clear superiority to the decoy serves as justification for choosing it over the competitor, since it provides a reason for that choice—a reason that is not available to the competitor which does *not* dominate the decoy.

The great diversity of psychological mechanisms that have been advanced to explain the attraction effect, and the many demonstrations of it across a breadth of domains (see Table 1) strongly suggest that the attraction effect is the more important or more typical context effect. However, our intuition suggested that repulsion effects would be prevalent in a variety of instances: for example, would you rather have an orange, an apple, or an apple with a worm in it? Furthermore, though replicated in choices across a diversity of domains (consumer products, politicians, romantic dates, job candidates, and medical treatments), the procedures in these studies were nearly invariant. In 26 of these 29 articles (see Table 1), choice stimuli were presented in the form of numeric attribute values (e.g. a television set might have a price of \$699 and a quality rating of “7”), which is not only unlike the posited thought experiments, but unlike the way choice attributes are often perceived or experienced.

In this paper, we propose that the manner of attribute representation is an important determinant of context effects for at least three reasons: First, when choice stimuli are described as a vector of numbers (e.g. price = \$2,099, quality = 9), they are stripped of affective content relative to settings where those attributes are experienced, rather than described (Oh my God! Look at that TV! I wonder how much it costs. Oh my God!). Second, the use of numbers

enhances the salience of the dominance relationship between the decoy and the target (even if one could consistently identify the clearer of two TV screens, 9 is superior to 8 in a still more definitive way). Third, reducing qualitative perceptual attributes into precise numerical ratings encourages the decision maker to compute a tradeoff rate (e.g. quality points per dollar) between these contrived numerical attributes (e.g. quality rating of a TV) and other naturally numerical attributes (e.g. price of the TV), and to compare the tradeoff rates between options (Johnson 1984; Simonson & Tversky 1993). In a set of experiments, we manipulate the representation of choice attributes, and show that this manipulation markedly influences both the strength and even the direction of context effects.

#### EXPERIMENT 1: GAMBLES (PROBABILITY AS NUMBER OR AREAL EXTENT)

In this experiment, 560 respondents chose between gambles that varied in probability of winning and amount won. For all respondents, two options included an 83% chance to win \$12 (the “P-gamble”) and a 30% chance to win \$33 (the “\$-gamble”). For half of the respondents, the choice set also included a third, dominated decoy option—a 30% chance to win \$30, which we presumed no one would choose (although 2% did). Although winning amounts were always represented as a number, the probability of winning was represented as a numeric percentage for half of the respondents, whereas for the other half, it was represented pictorially, as the shaded region of a probability wheel (see figure 1).

#### *Results*

When probabilities were represented numerically, the decoy increased choice share of the target \$-gamble from 21% to 34%, a significant attraction effect ( $\chi^2 = 5.83, p = 0.02$ ). However,

when probability was presented graphically, via the probability wheel, the decoy did not affect the choice share of the target gamble (36% to 37%;  $\chi^2 < 0.1$ , *ns.*).

#### EXPERIMENT 2: TV'S (CLARITY REPRESENTED AS NUMBER OR BY PHOTO)

In this experiment, 240 respondents chose between two (without the decoy) or three (with the decoy<sup>2</sup>) television sets that varied in price and image quality. Price was always represented by a number. However, image quality was represented either as photos of the TV screens (the clarity of which was manipulated by adjusting the resolution of a picture file, as shown in figure 3), or by the mean picture quality ratings of those TV's (8.0, 5.5, and 3.5), as judged by a separate group of 80 respondents.

#### Results

As in Experiment 1, when image quality was represented using numbers, the decoy dramatically increased the choice share of the target (the low quality TV) from 33% to 57%, a significant attraction effect ( $\chi^2 = 5.73$ ,  $p = 0.02$ ). However, when image quality was represented pictorially, the decoy actually *decreased* the choice share of the target from 53% to 35%, a marginally significant repulsion effect ( $\chi^2 = 3.37$ ,  $p = 0.07$ ).

#### GENERAL DISCUSSION

Like other context effects, the attraction effect has generated considerable interest from researchers in consumer behavior. It violates an established axiom of rational choice and has

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<sup>2</sup> Unlike Experiment 1, the decoy in this experiment was not strictly dominated by the target. Nevertheless, only two respondents, in total, chose it.

fairly straightforward practical implications, since the composition of consumer choice sets is easy to manipulate.

A casual reading of the consumer choice literature suggests that the attraction effect is a robust phenomenon, widely replicated across diverse domains. This implies that an inferior decoy generally enhances the attractiveness of the core option with which it is most similar. However, in two experiments, we found that the attraction effect was either eliminated (Experiment 1) or reversed (Experiment 2) merely using a graphical (rather than numeric) representation of attributes.

The graphical representation may have reduced the salience of the target's dominance over the decoy and thereby deprived the target option from the favorable contrast effect that it may benefit from when that comparison is more strongly evoked (Dhar & Glazer 1996). It may also have permitted respondents to compute attribute tradeoff rates (e.g. quality points per dollar) and to compare these tradeoff rates between options (Johnson 1984; Simonson & Tversky 1993).<sup>3</sup>

However, though these factors may explain an attenuation or elimination of the attraction effect, some other account is needed to explain the results of Experiment 2, in which the graphically represented decoy actually repelled respondents away from the target. We speculate that a multi-dimensional visual experience (e.g. brightness, contrast, saturation, resolution) has more affective content than a number (e.g. 5.5), and that negative emotions associated with viewing a blurry TV (i.e. the decoy) are transferred to the medium clarity less expensive TV (i.e. the target), such that the respondents in our experiment who were exposed to the decoy shifted their attribute weights in favor of picture quality over price.

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<sup>3</sup> We are now conducting a series of experiments to test these explanatory mechanisms, and hope to present the results at the upcoming conference.

The repulsion effect has been studied indirectly in research on brand extensions. In a phenomenon akin to the repulsion effect, products such as Bic pantyhose and Heinz pet food not only met early deaths, but also hurt the image and market share of the brand's traditional products, as consumers were repelled toward the competitors (Kotler & Keller 2005). Despite the clear managerial relevance of such examples, there has been next to no experimental research on the repulsion effect, let alone investigations of the psychological mechanisms underlying it. The lone exception was Aaker (1991) who found that when respondents were asked to choose among potential friends with different ratings on various personality attributes (e.g. open-mindedness vs. sense of humor) and did not have to justify their choice, they tend to pick the competitor instead of the target option (that strongly dominates the decoy option on both attributes), an effect she called the "black sheep effect." In addition, some of the results of Ratneshwar et. al. 1987 also provide directional support for the repulsion effect, as the decoy caused the choice share of the target option to fall from 41% to 32% for TVs, and 39% to 29% for orange juice (although neither of these comparisons were significant). We believe that the experiments we reported in this paper were the first to test this effect explicitly, and among the few that have examined the role that attribute representation plays in context effects.

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Table 1

*List of Stimuli and Attributes Used in 29 Articles on the Attraction Effect*

<b>Paper</b>	<b>Stimuli</b>	<b>Attributes</b>	<b>Attribute Type</b>
Aaker 1991	Friends	Thoughtfulness, friendliness Sense of humor, open-mindedness Intelligence, imaginativeness	Numeric Numeric Numeric
Ariely and Wallsten 1995	Microwaves Running shoes Computers TVs Bicycles	Price, capacity (ft), wattage (W) Comfort, durability, price Speed (Hz), memory (MB), price Screen size (in), price, wattage (W) Price, weight (LB), wheel base (in)	Numeric Numeric Numeric Numeric Numeric
Bargava, Kim and Srivastava 2000	Cars Flights	Quality of ride, fuel Price, penalty	Numeric Numeric
Branstrom 1997	Apartments	Monthly rent, distance from campus (min)	Numeric
Burton and Zinkhan 1987	Beer Restaurants	Price, taste quality Food quality, driving time	Numeric Numeric
Choplin and Hummel 2002	Airplane ticket Studio apartment	Cost, layover (min) Rent, commute (min)	Numeric Numeric
Dhar and Glazer 1996	Automobile Stereo Apartment Manager MBA Beer Battery Restaurant VCR	Comfort rating, gas mileage Sound rating, reliability Distance (miles), condition rating Technical rating, human skill rating GMAT, GPA Quality, price/6-pack Life (# hours), price/pair Food quality, driving time (min) Picture rating, reliability rating	Numeric Numeric Numeric Numeric Numeric Numeric Numeric Numeric Numeric
Doyle et. al. 1999	Audiocassette tapes Batteries Orange juice	Price, quality Price, quality Price, quality	Numeric Numeric Numeric
Heath and Chatterjee 1991, 1995	Beer Cars	Price, quality rating Car mileage, ride quality	Numeric Numeric
Highhouse 1996	Job candidates	Interview rating, promotability rating	Numeric
Huber, Payne and Puto 1982; Huber and Puto 1983;	Beer Cars Restaurants Lotteries Film TV sets Calculator batteries	Price/six pack, quality Ride quality, gas mileage (mpg) Driving time (min), food quality Chance of winning, amount of win Developing time (min), color fidelity Percent distortion, reliability Estimated life (# hours), price/pair	Numeric Numeric Numeric Numeric Numeric Numeric Numeric
Kim and Hasher 2005	Grocery discounts Extra credit	Discount offered (%), minimum purchase required (\$) Extra credit offered (points), min amount of time required (minutes)	Numeric Numeric
Mishra, Umesh and Stem 1993	Beer Cars TV sets	Price/six pack, quality Ride quality, gas mileage Percent distortion, reliability	Numeric Numeric Numeric
Olsen and Burton 2000	Cars	Gas mileage, reliability rating	Numeric
Pan and Lehmann 1993	TV sets Apartments Batteries Compact sedan Light bulb	Resolution (lines), durability (months) Size (sq feet), closeness to campus (secs to walk) Expected life (hours), price Fuel efficiency (mpg), acceleration Expected life (hours), light output (output)	Numeric Numeric Numeric Numeric Numeric
Pan, O'Curry and Pitts 1995	Political candidates	Education, crime control, tax policy	Numeric
Prelec, Wernerfelt and Zettelmeyer 1997	Air conditioners Binoculars Auto-focus cameras Coffeemakers	Operating noise rating, price Magnifying power, price Number of features, price Quality rating, price	Numeric Numeric Numeric Numeric

	Rain boots	Durability rating, price	Numeric
	Running shoes	Cushioning ability rating, price	Numeric
	Vacuum cleaners	Suction power rating, price	Numeric
	VCRs	Durability rating, price	Numeric
Ratneshwar, Shocker and Stewart 1987	TV sets	Percent distortion, reliability (years)	Numeric*
	Orange juice	Price/64oz, quality rating	Numeric*
	Beer	Price/six pack, quality rating	Numeric*
	Cars	City mileage (mpg), ride quality	Numeric
	Light bulbs	Light output (lumens), expected life hours	Numeric
	Gas barbeque grills	Cooking area (sq. ins) fuel tank capacity (hours)	Numeric
Schwartz and Chapman 1998	Medication	Treatment effectiveness, probability of side effects	Numeric
Sedikides, Ariely and Olsen 1999	Partner attributes	Attractiveness, honesty, sense of humor, dependability, intelligence	Numeric
Sen 1998	Restaurants	Food, atmosphere	Numeric & Qualitative
Simonson 1989	Beer	Price/sixpack, quality	Numeric
	Cars	Ride quality/gas mileage	Numeric
	Color TV	Price, picture quality	Numeric
	Apartment	Distance, general condition	Numeric
	Calculator	No of functions, Probability of repair in first 2 years	Numeric
	Mouthwash	Fresh breath effectiveness, germ killing effectiveness	Numeric
	Calculator battery	Expected life (hours), probability of corrosion	Numeric
Simonson and Tversky 1992	Microwave ovens	Capacity, price, discount	Numeric
	Paper towels vs. facial tissues	Quality (of paper towels vs. facial tissues)	Perceptual
	Cash vs. pens	Quality (of pens)	Perceptual
	Gasoline	Quality (amount of octane), price/gallon	Numeric
	Personal Computers	Memory (K), price	Numeric
Tentori, et. al. 2001	Supermarket discounts	Discount offered (%), minimum purchase required (\$)	Numeric
Wedell 1991	Gambles	Probability to win, amount to win	Numeric
	Automobiles	Ride quality, gas mileage (mpg)	Numeric
	Restaurants	Quality rating, driving time (min)	Numeric
	TV sets	Percent distortion, reliability	Numeric
Wedell and Pettibone 1996; Pettibone and Wedell 2000	Computers	Processing speed (MH), size of hard drive (MB)	Numeric
	Restaurants	Price of meal for two, wait to be served (minutes)	Numeric
	Plane tickets	Cost of ticket (\$), Length of layover (minutes)	Numeric
	Mechanics	Warranty length (days), experience (years)	Numeric
	CD players	Price, number of disks	Numeric
	Apartments	Rent, distance (minutes)	Numeric
	Cars	Miles per gallon, number of safety features	Numeric
	Boats	Number of passengers, speed (knots per hour)	Numeric
	Job offers	Number of days of sick leave, number of paid holidays	Numeric
	Houses	Price (thousands of \$), square footage	Numeric
	Electric keyboards	Tone quality (1-100), number of features	Numeric
	Mini-LCD TVs	Price, percent distortion	Numeric
	Preschools	Children per classroom, teacher's experience (years)	Numeric
	Microwaves	Warranty (months), cooking power (watts)	Numeric
	Parking spaces	Price per month, distance from work (blocks)	Numeric
	Video cameras	Weight (pounds), number of features	Numeric
	Beer (24 packs)	Price, Quality (1-100)	Numeric
	Cars	Ride quality (1-100), miles per gallon	Numeric
	Restaurants	Distance from home (minutes), quality (1-5 stars)	Numeric
	TV sets	Percent distortion, average life span (years)	Numeric
Zhou, Kim and Laroche 1996	Cars	City mileage (mpg), ride quality rating	Numeric
	Orange juice	Price, quality rating	Numeric
	Calculators	Number of functions, probability of need for repair in first 2 years	Numeric

\* The qualitative ratings were supplemented with elaborate verbal descriptions of their meanings.

Figure 1

*Pictorial Stimuli Used in the Gambles Study (Experiment 1)*

Suppose you could play one of the games below. In each case, you spin the pointer, and if the pointer lands within the shaded region, you win the amount shown below. Choose the one you prefer.

\$12                      \$33                      \$30

Figure 2

*Choice Probability of Target Gamble (Experiment 1)*

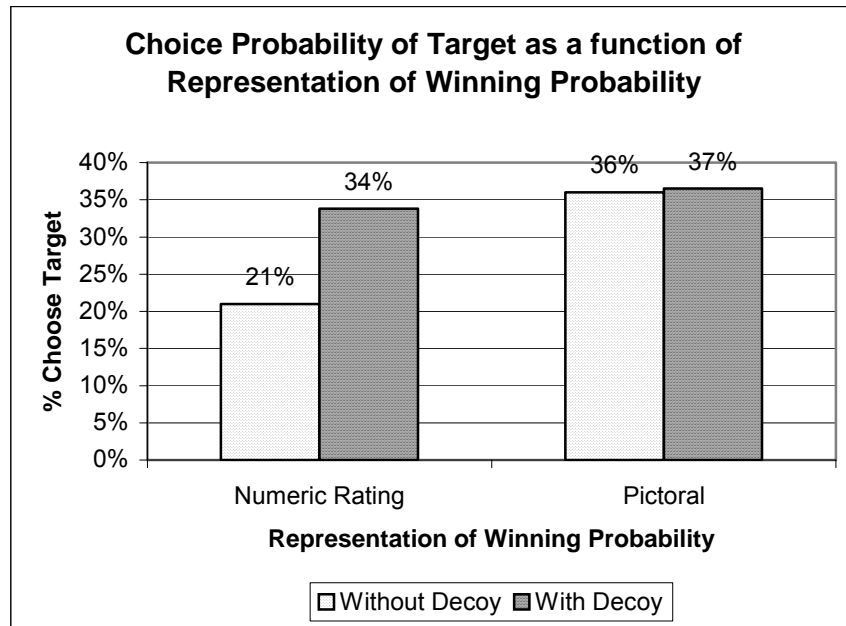


Figure 3

*Pictorial Stimuli Used in the TV Study (Experiment 2)*

**Suppose you are buying a second television. Assuming that all the ones below have the same screen size, which would you choose? (Please select one.)**



Price: \$503



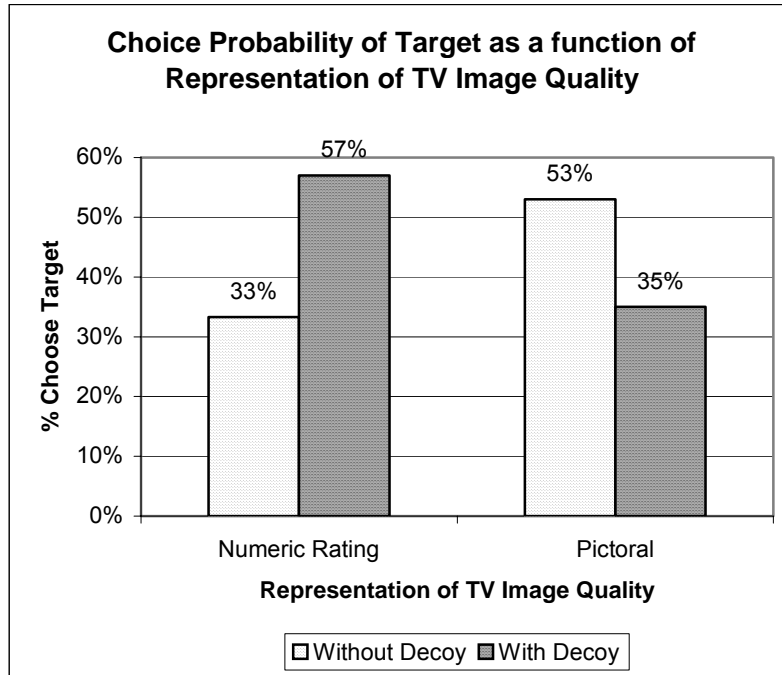
Price: \$350



Price: \$339

Figure 4

*Choice Probability of Target TV (Experiment 2)*





The Impact of Price Display Size on Processing and Evaluation of  
Comparative Price Advertisements  
*Vaidyanathan Rajiv, Aggarwal Praveen University of Minnesota Duluth*

## Abstract

We examine the effect of changes in the font size of price information in print advertisements where both regular and sale price information is provided. Using a diagnosticity/accessibility framework, we show that such changes affect purchase intentions but through different moderating variables. Increasing the relative font size of regular price information positively affects the normal price estimate of an individual. Similarly, increasing the sale price font size results in increased message processing. However, the two effects cannot be had simultaneously.

# THE IMPACT OF PRICE DISPLAY SIZE ON PROCESSING AND EVALUATION OF COMPARATIVE PRICE ADVERTISEMENTS

## EXTENDED ABSTRACT

Although the impact of price presentation on consumer price perceptions has been studied in the past, such studies have generally ignored any evaluation of how the *physical* representation of price cues in an ad (using ad execution elements such as size or color) affects consumer judgments. In this study, we examine the effect of relative font sizes of pricing cues in print advertisements where both regular and sale price information is provided.

In the context of processing a print ad, the elements of the ad that consumers will process depend on the accessibility and diagnosticity of the elements in the ad. Accessibility is the ease with which the information is made available in the ad for processing by the viewer of the ad. The diagnosticity of a piece of information refers to the extent to which the piece of information is important in forming the related judgment. The extent to which multiple price cues influence consumer deal judgments will depend upon (a) the accessibility of each price cue, and (b) the diagnosticity of each price cue. We propose that changing the relative size of price cues affects the accessibility of those cues and the two price cues (regular and sale price) serve diagnostic purposes for two important mediating variables – normal price estimate and message processing of the ad.

We argue that the regular price affects deal evaluation and purchase intentions through its effect on normal price perceptions. Increasing the accessibility of regular price should have a positive effect on normal price perceptions. Sale price, on the other hand, affects the extent to which a subject processes the ad message. Making the sale price salient should result in increased message processing. Thus, comparing an ad where the sale price is larger than regular price to an ad where the regular price is larger than the sale price, we should expect opposite effects on purchase intention through their effects on normal price estimates and message processing.

We used a sample of 183 undergraduate students at a Midwestern university. The ad stimulus was for a Canon digital camera. The price cues in the ad were realistic and based on real average market prices (regular price: \$299.99; sale price \$179.99) for the advertised model. The ad stimuli were created so that the larger font was always 150-point and the smaller font was always 50-point.

Most of the hypotheses were supported. As the proportion of the ad space occupied by the price information went up, the amount of attention paid to the message went up. Increasing the size of the regular price (keeping everything else constant) resulted in a significant increase in the normal price estimate of subjects. However, given that the regular price is not diagnostic in any deal evaluations, there was no effect of increasing the regular price size on the extent of message processing. On the other hand, increasing the size of the sale price, *ceteris paribus*, significantly increased the extent of message processing. The increased size of the sale price font had no statistically significant effect on subjects' normal price estimates.

Making the regular price salient relative to the sale price boosts normal price estimates but lowers message processing. On the other hand, making sale price salient relative to the regular price boosts message processing, but at the expense of subjects' normal price estimates. As a result of these opposite effects, switching the salience of these price cues appears to have no effect on purchase intention.

This study demonstrates the psychological mechanism by which changing the size of the price cue influences purchase intention through its effects on intervening variables (normal price estimates and message processing). What is more interesting about these findings is that the two effects cannot be had simultaneously. Thus, while it is beneficial to increase the relative size of the sale price cue or the regular price cue in a print ad, the two advantages cannot be garnered simultaneously. One can either increase the normal price estimate by increasing the size of the regular price cue, or increase the message processing by increasing the size of the sale price cue.

## Author Note

**Rajiv Vaidyanathan** (Ph.D. Washington State University) is Professor of marketing at the University of Minnesota Duluth. His research interests include the examination of how consumers perceive prices and evaluate advertised deals as well as behavioral factors affecting consumer decision making in general. His research has been published in several journals including the *Journal of the Academy of Marketing Science*, *Journal of Business Research*, *Journal of Product and Brand Management*, *Journal of Promotion Management*, *Journal of Consumer Behaviour* and *Journal of Business and Psychology*, as well as in the proceedings of several national and international marketing conferences. He also currently serves as Executive Director of the Association for Consumer Research.

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## **Session 3C (Shangri La Lounge)**

Temporal Framing of Progress in an Extended Consumer Compliance Task

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TEMPORAL FRAMING OF PROGRESS IN AN EXTENDED CONSUMER COMPLIANCE  
TASK

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# TEMPORAL FRAMING OF PROGRESS IN AN EXTENDED CONSUMER COMPLIANCE TASK

## Abstract

This study examined “temporal framing” – the reporting of progress on an extended task in terms of either amount completed or amount remaining. Participants were asked to complete a series of 10 marketing surveys but were allowed to quit at any time. Progress was reported following the 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup> and 8<sup>th</sup> surveys. In terms of both total number of surveys completed and perceived progress on the task, the most successful form of feedback was reporting how many surveys had been completed (PAST orientation) during the first half of the procedure, then switching to number of surveys remaining (FUTURE orientation) during the second half. Results are discussed in terms of the motivating effects of temporal framing.

## TEMPORAL FRAMING OF PROGRESS IN AN EXTENDED CONSUMER COMPLIANCE TASK

To most of us, time is one of the most valuable, yet limited, possessions we have. Marketers often find ways to save consumers time; yet there are times when marketers request the opposite, asking them to participate in time-consuming tasks such as waiting at a service counter, holding on the phone for the next available customer representative, or taking time to fill out marketing surveys. Finding ways to make these activities more bearable is critical in getting consumer completion and would have benefits for both consumers and marketers.

One way to make these activities more bearable would be to create the perception of “accelerated” progress. This study tests one such managerial intervention – to periodically and strategically provide “framed” feedback on the consumer’s progress over the extended period of time. The question is, ‘How should this feedback be reported?’ This study examines this question within the context of consumers filling out marketing surveys. Focusing on what has already happened leads one toward a temporal orientation of looking backward, to the past, or to what has been accomplished. Focusing on what is yet to come leads one toward a temporal orientation of looking forward, to the future, or to what is left to accomplish. This study thus involves elements of feedback control and framing.

### Feedback Control

Feedback control has been studied within the context of self-regulating behavior. Carver and Scheier (2000) consider behavior as a self-regulating event that involves a goal and the process of feedback control as one approaches that goal. In the present context, this process begins with the consumer identifying a goal such as completing the marketing surveys. Behaviors that move one toward the goal are then conceived and begun. These behaviors are

guided by the monitoring of progress toward the goal. A feedback loop guides behavior by comparing the input (one's perceived current status) with the reference value (actual completion of the goal). If one senses a difference between "completion of the goal" and "one's perceived current status," behavior is generated to reduce the discrepancy. The process repeats until the difference is no longer discerned. The current study assesses how overt feedback through the use of temporal framing can affect the process.

### Framing

Framing effects on attitudes and decision making have been, and continue to be, an important topic of study in consumer psychology. (For recent reviews of the framing effects literature, see Levin, Schneider & Gaeth, 1998; and Kuhberger, 1998.) These effects can be of particular appeal to marketers since they frequently involve no additional cost to implement. Capitalizing on framing effects can merely involve careful consideration of the wording of a marketing message.

This study introduces a new twist to the framing literature. Traditional framing effects involve the manipulation of valence of objectively equivalent statements with either a positive or negative tone. In this study, objectively equivalent statements are still used. However, time orientation is manipulated by telling consumers, for example, that they have 2 of 10 surveys completed or they have 8 of 10 surveys remaining. Moreover, this research considers framing in a continuous and dynamic way, where multiple exposures to temporal feedback including changes in orientation of frame can occur within a single sequence.

### HYPOTHESES

Which time orientation will lead to the greater number of surveys completed? An early introduction of a future-looking orientation could be more discouraging than encouraging,

emphasizing the large amount that is still remaining. For example, “You have 8 of the 10 surveys remaining” could be interpreted as a reminder of how much longer you are committed to the task. However, an early introduction of a past-looking orientation, “You have 2 of the 10 surveys completed”, could act as a message that some progress has been made, leading to some encouragement to go on.

Further in the process, however, the past-looking orientation would likely become less encouraging, serving as a reminder of how long this process has been going on. For example, “You have 8 of the 10 surveys completed” could now act as a reminder of how tired you are or that you have done “enough” to help the marketer and are not obligated to go on. However, a future-looking orientation, given toward the end of the process, is now very encouraging. “You have 2 of the 10 surveys remaining” now reminds you that you are very close to reaching your goal and that the end will actually come!

Kahneman and Tversky’s Prospect Theory (1979) supports this. It suggests that people interpret an incremental change specified by numbers of smaller magnitude (such as an incremental change from 2 to 4) as being larger than that same incremental change specified by numbers of larger magnitude (such as an incremental change from 6 to 8). This is because the incremental changes using smaller numbers are on the steeper portion of the S-shaped curve, as compared to the larger numbers that are on the flatter portion of the S-shaped curve. Using future-looking feedback over time, progress will be reported with numbers of larger magnitude at first (8 remaining, 6 remaining, etc.) moving down to numbers of smaller magnitude (4 remaining, 2 remaining). Therefore, subjects should interpret a unit incremental change of future-looking feedback as increasing over time, which produces an accelerated feeling of progress over time. Conversely, using past-looking feedback, progress will be reported with

smaller numbers at first moving up to larger numbers, leading to a decelerated feeling of progress over time.

This leads to the following hypothesis:

H1: Past-looking during the first half, then future-looking during the second half, will lead to the greatest endurance, or most surveys completed, over an extended duration as compared to all other time-orientations in this experimental design.

## METHOD

### Overview

Consumers were asked to participate in a series of 10 consumer surveys on products such as toothpaste and soap but they were told they may quit at any time. Feedback was given periodically in terms of how many surveys had been completed or were remaining. Following each feedback presentation and at the end, participants were asked to fill out various scales to measure their feelings and perceptions. For present purposes the key such measure is a rating of perceived progress in the task. Another key dependent measure is behavioral – how many surveys they actually did complete.

### Design

A 2x2 design was employed where participants (288 undergraduate marketing students from a large Midwestern university) were randomly assigned to one of four conditions: “FUTURE-FUTURE”, with FUTURE orientation (number of marketing surveys remaining) for the first 5 surveys and FUTURE orientation for the second 5 surveys; “FUTURE-PAST”, with FUTURE orientation for the first 5 surveys and PAST orientation (number of marketing surveys completed) for the second 5; “PAST-FUTURE”, with PAST orientation for the first 5 and FUTURE orientation for the second 5; and “PAST-PAST”, with PAST orientation for both the

first 5 and the second 5 surveys. In each condition feedback was given following the 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup> and 8<sup>th</sup> surveys.

### Procedure

Procedural precautions were used to insure that there would be variance in the number of surveys actually completed by participants. First, they were told, “I’d like you to participate in as many marketing surveys as you can. However, I know this process can be a bit dry and repetitive. If, at any time, you feel that your attention level is really starting to fade, please feel free to stop before finishing all of the surveys. In fact, I would rather you not finish them all and give me good, quality answers than to keep going just to say you did them all and your answers at the end are rushed and not well thought out.” They were insured that they would get full credit regardless of how many surveys they completed. Furthermore, participants entered the room at staggered times so as not to be influenced by when others left the room.

### Measures

The key process measure following each outcome feedback was a line-mark scale of “perceived progress”. Participants were asked to place a slash somewhere along a 100 mm horizontal line marked “just starting” at one end and “just finishing” at the other end. Objectively, after 2 surveys, the participant should mark the line at 20 mm from the left, indicating that they were 20% of the way in the process. However, since the line was unmarked at the ends, removing some of the obligatory feelings of being objective, the measure was taken as “perceived” progress.

The key behavioral measure was simply counting the number of surveys actually completed when the participant turned in the response booklet.

## RESULTS AND DISCUSSION

### Number of Surveys Completed

Behavior was examined first by descriptive analysis, which divided the process into two parts: (1) the first half of the process, or up to the midpoint, and (2) the second half of the process, or beyond the midpoint. This was then followed by statistical analysis, which involved an ANOVA comparison of means among the four groups of temporal frame patterns – FUTURE-FUTURE, FUTURE-PAST, PAST-PAST, AND PAST-FUTURE. It was predicted that PAST-FUTURE would produce the highest mean number of surveys completed.

*Observational analysis – the first half of the process.* Since this section considered activity early in the process (the first half), drop out rates were just beginning to accumulate. To better highlight this initial activity, early observational analysis considered the actual number and timing of the dropout occurrences themselves. As the activity sped up and the number of dropouts accumulated, the second part of the observational analysis turned to survival rates to better give the overall, cumulative effect.

During the first half of the process, subjects received only one or the other frame type, FUTURE or PAST, and had not yet had a chance to switch frame types. Therefore, for Part I analysis, PAST-FUTURE and PAST-PAST groups were combined into PAST/?, and FUTURE-PAST and FUTURE-FUTURE groups were combined into FUTURE/?.

Figure 1 shows the results from the first half of the process. It shows the timing of early drop out, up to and including the five-surveys midpoint.

There are three observations from this graph.

1. There does not seem to be much early dropout activity prior to the fourth survey.

Two possible explanations are extended. First, it was early in the process, and mental

- fatigue had not set in. Second, there were likely still some expectations of how many surveys were “enough” to fulfill a reasonable performance on this task, even after giving them permission to leave early.
2. The first significant moment to leave occurred after four surveys. The majority of these, 11 out of 15 or 73%, were in the future frame type. At this point in time, FUTURE frame type just received the message that “You now have six marketing surveys remaining” as compared to the PAST frame type’s message of “You now have four marketing surveys completed.” Perhaps “six remaining” sounds more ominous than “four completed.”
  3. Both groups had a spike of activity after five surveys. One potential explanation for this is some form of “midpoint” effect. The midpoint might be a natural marker of how many surveys were “enough” to fulfill a reasonable performance on this task, even after giving them permission to leave early.

*Observational analysis – the second half of the process.* Now that participants were further along in the process and drop out rates were starting to accumulate, the graphs switch to reporting the cumulative survival rate of the initial groups to emphasize not just the incremental drops but also the cumulative effect that they have.

In the second half of the process, subjects could now potentially have their frame type switched from what they had in the first half. Therefore, four different groups are now distinguished: FUTURE-FUTURE, FUTURE-PAST, PAST-PAST, AND PAST-FUTURE.

Figure 2 shows the results from the second half of the process. There are three observations from this graph.



1. There was a lot more dropout activity, regardless of frame type, in the second half of the process. Two prospective explanations are extended. First, it was now later in the process, and mental fatigue had likely started to set in. Second, any expectations of how many surveys were “enough” to fulfill a reasonable performance at this task were likely starting to be met.
2. There was a lot of dropout activity after the sixth survey. The majority of these, 21 out of 30 or 70%, were in the PAST frame type for the second half, either PAST-PAST or FUTURE-PAST. At this point in time, they just received the message that “You now have six marketing surveys completed” as compared to the other groups’ message of “You now have four marketing surveys remaining.” As hypothesized, “4 remaining” sounds less ominous than “6 completed.” “Six completed” may also sound like they had done a “reasonable” job of complying with the experiment’s requests.
3. The frame type PAST-FUTURE, performed better in terms of fewer drops out than the other groups. The survival rates from the starting numbers in each group were 72.5% for PAST-FUTURE and 59.4%, 58.2%, and 53.5% for groups FUTURE-PAST, FUTURE-FUTURE, and PAST-PAST, respectively.

Table 1 gives descriptive statistics for the behavioral measure.

Pairwise comparisons indicate that the Number of Surveys Completed for the PAST-FUTURE group (PF in the chart) is statistically larger than the Number Completed for the FUTURE-PAST group ( $p$ -value = 0.039 (one-tailed)) and for the PAST-PAST group ( $p$ -value = 0.012 (one-tailed)). It is also larger than the FUTURE-FUTURE group, but only at a 0.075 level. In terms of encouraging consumer compliance, the strategy of providing feedback on

number of surveys completed during the first half and then switching to number of surveys left to go during the second half was most effective. The early effect is consistent with Carver and Scheier's (2000) notion of a feedback loop where an accelerated feeling of progress narrows the gap between perceived current status and achieving the goal of completing surveys. However, toward the end of the extended process, providing a future orientation is more encouraging because it reminds the consumer that the end is near.

### Perceived Progress

This measure was obtained from subjects after two, four, six, and eight surveys (assuming they did not drop out prior). To make each of these measures more comparable across time, the "objective" measure (20 after 2 surveys for 20% completed, 40 after 4 surveys, etc.) was subtracted from the reported "perceived" measure. The resulting number is a measure of "perceived, accelerated" progress, which is positive if the subject marked that they were farther along than they were objectively and is negative if the subject marked that they were not as far along as they were objectively. For example, a resulting value of +10 would indicate they felt they were a full survey farther along than they actually were.

A repeated-measures GLM was run on the measures of progress (PROGRESS) throughout the process by frame groups (GROUP) receiving either the FUTURE frame of progress throughout or the PAST frame of progress throughout. These results are displayed in Figure 3. The results indicate a significant interaction between PROGRESS and GROUP, using the Greenhouse-Geisser F-test ( $F_{2, 173} = 5.716$ ,  $p\text{-value} = 0.002$ ).

In the first half of the process, the PAST group received messages of "completed" surveys, such as 2 completed and 4 completed; whereas the FUTURE group received messages of "remaining" surveys, such as 8 remaining and 6 remaining. The PAST group seemed to

perceive more progress in the first half as compared to the FUTURE group. With this scaling, a distance of ten would be a full survey apart in progress. At the first measure, or after two surveys, the average distance between these groups was 7.844 or more than three-quarters of a survey in difference. This is a significant difference at the 0.05 level.

In the second half, however, the opposite occurred. In this half, the PAST group received messages such as 6 completed and 8 completed; whereas the FUTURE group received messages such as 4 remaining and 2 remaining. Here, the FUTURE group seemed to perceive more progress in the second half than the PAST group. At the fourth measure, or after eight surveys, the average distance between these groups was 9.245 or almost a whole survey in difference. This is also a significant difference at the 0.05 level.

The results for perceived progress, like those for survey completion, favor past orientation on early trials and future orientation on later trials.

## CONCLUSIONS AND CONTRIBUTIONS

### Managerial Contributions

This research investigated marketing intervention by framing the progress of extended experience. With this intervention, marketers can dynamically deliver messages of progress with a specific time orientation to enhance consumers' experiences. This research, and its potential extensions, focused on critical tasks that marketers ask of consumers, even though they are time-consuming and unpleasant. Enhancing consumers' experiences in this fashion is beneficial to the consumer and the marketer. In the case of completing marketing surveys, this is beneficial to the consumer since it will lead to improvements in their mood and give them a feeling of "doing the right thing" and "being able to voice their opinions." It is also beneficial to the marketer since it improves the number of completed surveys they receive and likely improve the quality of input

they receive in the complete survey. This improvement also comes at very little, if any, additional cost since some form of feedback is usually already in place, and this intervention involves a specific framing or wording of this feedback.

### Theoretical Contributions

This research has theoretical implications. First, this research was a nontrivial extension of traditional framing effects, which involve manipulations of valence or of objectively-equivalent statements with either a positive or negative tone. Second, this research considered framing in a continuous and dynamic way. Knowledge was gained regarding the effects of multiple exposures to a framing stimulus, as well as the effects of changing the orientation of framing within the same process. Third, this research introduced the concept of time orientation to the consumer behavior literature. Currently, the theory associated with this is rather sparse, so it is desired that this work is a start to better develop theory in this area.

### Further Research

There is tremendous opportunity for future research in this area. Some examples of this opportunity are given below.

*Other forms of extended experience.* The current study focused on extended experience involving negative affect. However, there are also examples of extended consumption that involve positive affect such as vacation packages and cruises. These examples could create much different responses to the same temporal frame. For example, looking backward in time with a negative-affect situation might elicit thoughts of relief that “the worst part is over,” whereas looking backward in time with a positive-affect situation might elicit thoughts of sadness that “the best part is over.” Further research could investigate the effectiveness of temporal framing in these situations to increase the enjoyment and satisfaction of the experience.

The current paper focused on extended experience where, upon completion of the tasks, nothing further happened. In other words, there was no additional “prize” for completing the tasks beyond the feeling of being “finished.” Another form of extended experience might involve an additional “prize” at the end of the process. For example, insurance contracts will sometimes refund part of the costs after staying with the company for a number of years. Likewise, someone waiting in line at an amusement park will ultimately get the “prize” of the ride itself. These examples could elicit a much different response to temporal frames. In the current paper, there were relatively few drop outs in the first half of the experiment, whereas survival rates declined for all but the PAST-FUTURE condition in the second half of the experiment. In other words, the second half was the critical part of the process. In the case of a “prize” at the end, the more critical part of the process may instead be the first half of the process. Early in the process, one would not have much time invested, so there is little sunk cost to keep them going. However, later in the process, sunk costs are higher; and there would be a more natural propensity to keep going to avoid wasting what has already been invested. In these instances, what frame is given in the first part of the process may be the most influential. Moreover, FUTURE frame would likely focus the subject on the “prize” and might end up playing a more important role throughout the process in this context. Reminding the subject of the “prize” awaiting them could end up being a greater influence than, or perhaps a substitute for, the need for “accelerated” progress.

*Other forms of managerial interventions.* This study examined the reporting of progress using temporal framing. However, there are other managerial interventions that could be considered in extended experience. Consumers often choose to participate in extended experience processes for very specific reasons. For example, consumers may choose to go on a

diet to look good for a vacation (self-directed) or because their doctors demand it (others-directed). Managers could provide a continuous stream of reinforcing messages that keep these reasons “top of mind,” leading to potentially improved persistency.

*Other moderating and mediating variables.* There are other variables that may moderate and mediate the effects of temporal framing. For example, difficulty of the task and initial level of resolution to complete the task may vary the levels of effects. Furthermore, this study only considers a forward motion of progress. Setbacks, or the allowance of forward and backward motion of progress, are closer to reality in many marketing examples of extended experience such as an unexpected delay at a service counter. The presence and timing of setbacks could remove or alter the effects found in the above study and would be an interesting and valuable extension to this literature.

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Table 1

*Number of Surveys Completed by FRAME Groups*

Frame Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1-PF	9.014	.261	8.501	9.528
2-FF	8.478	.265	7.957	8.999
3-PP	8.183	.257	7.677	8.689
4-FP	8.362	.261	7.849	8.876

Figure 1

*Timing of Early Drop Out*

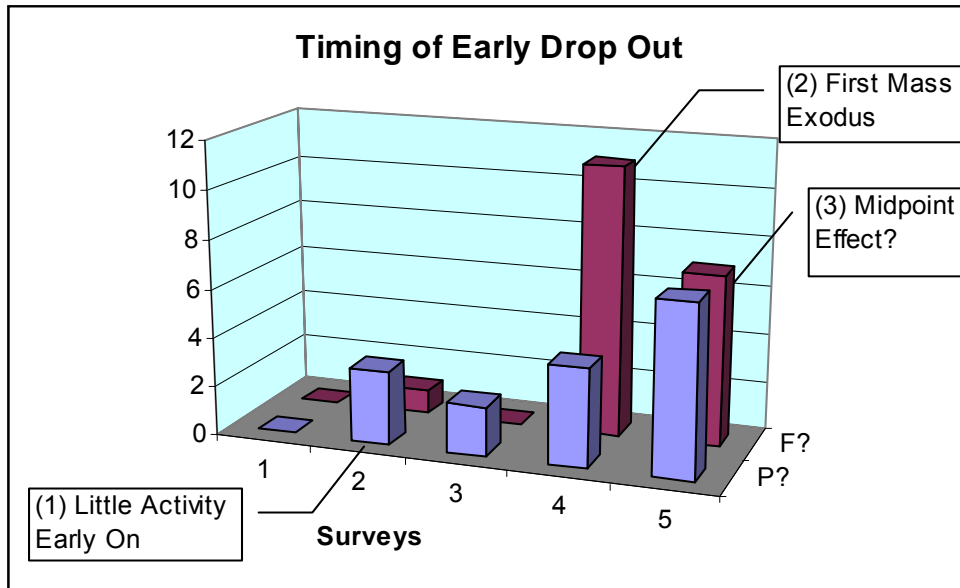


Figure 2

*Cummulative Survival % of Starting Groups*

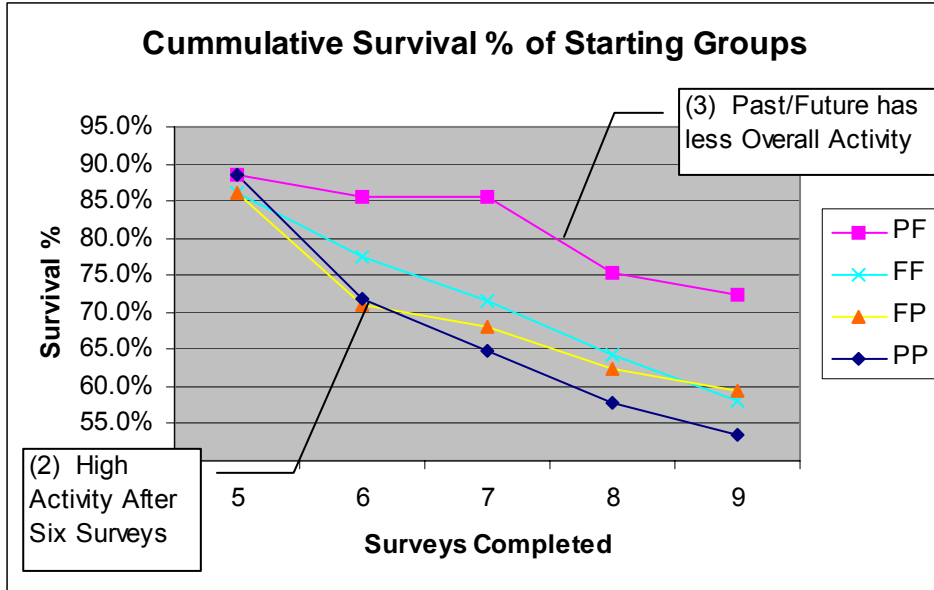
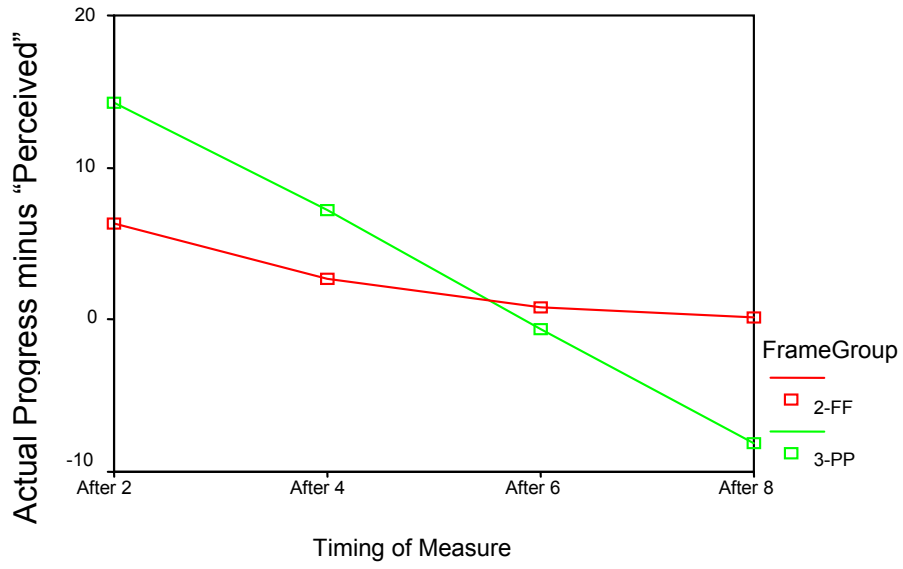


Figure 3

*“Perceived” Progress by FRAME (Past & Future) Groups*



## The Attenuating Influence of Elaboration on Potential Outcomes on Information Framing Effects

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Message framing is a widely researched area in consumer research (e.g., Block and Keller 1995; Maheswaran and Meyers-Levy 1990; Shiv, Edell, and Payne 1997; 2004). Framing effects refer to the finding that decision makers respond differently to different but objectively equivalent descriptions of the same message. Strong and consistent framing effects have been found in different domains, using a variety of framing manipulations (for a review see e.g. Levin, Schneider, and Gaeth 1998).

Past research has not sufficiently examined the relationship between message frames and people's psychological traits, and researchers have pointed out the need for future work in this area (Rothman and Salovey 1997). In this paper we take one step in this direction by examining the relationship between message framing and people's tendencies to consider the potential positive and negative future outcomes of their behavior. In three studies in the domain of investment decision-making we examine the interacting effects of message framing and consumers' outcome elaboration tendencies on their willingness to invest and their tendencies to diversify. We employ three different types of framing manipulations and show that people who have weaker tendencies to elaborate on potential positive and negative outcomes are more susceptible to framing effects than people with stronger such tendencies.

While susceptibility to framing proves to be counterproductive to people's well-being in many cases, it might also be used as a positive force to increase the effectiveness of persuasive messages. Higher susceptibility to framing might aid the effectiveness of educational programs

and advertising campaigns aimed at increasing investments and improving their quality, since recent data show that few consumers invest enough money and adequately diversify their investments (Morgenson 2003). This trend is very problematic since investment decisions can have major implications for investors' future financial welfare and usually involve significant amounts of money.

Research has shown that some people have a stronger tendency to engage in pre-decision elaboration on the potential implications of their decisions and weigh the pros and cons than more than others (Yordanova, Inman and Hulland 2005). Yordanova and her colleagues found that this consumer tendency is an important determinant of the self-regulation of behavior, and is related to a number of consumer traits and behaviors. Research has also found that deliberating between potential action goals creates a cognitive orientation – deliberative mindset – that facilitates the task at hand (Gollwitzer 1990). Individuals in a deliberative mindset, who weigh the pros and cons of feasibility and desirability-related information, and the positive and negative consequences of the goal pursuit, are more receptive to available information – not only do they have a heightened speed of processing heeded information, but also they have an increased readiness to process available information (Gollwitzer 1990). Based on these findings we argue that consumers who are more willing to engage in a thorough pre-decision deliberation of the positive and negative outcomes of a decision are more receptive to both positive and negative information, and therefore less susceptible to information framing effects. We propose that elaboration of potential positive and negative outcomes in the pre-decision stage of investment decision-making makes both the positive and negative implications of investing in a mutual fund more accessible, thus reducing people's susceptibility to framing effects.

## MESSAGE FRAMING

Variety of moderators to the effects of framing on decisions and behavior have been examined, but more research is needed on the relationship between message frames and people's dominant psychological traits and concerns (Rothman and Salovey 1997). In the studies that follow we examine the influence of subject characteristics in terms of their tendency to elaborate on the potential positive and negative outcomes of their behavior on their intention to invest in differently framed investment opportunities. In three studies we employ three types of framing manipulations - goal, attribute, and format framing. We discuss research relating to these types of framing manipulations in the studies that follow.

Impacts of different types of framing manipulations are different, but all these effects are due to the adoption of a particular frame of reference towards the target, and the lack of focus on alternative frames of reference (Levin et al. 1998). Elaboration on potential positive and negative outcomes in the pre-decision stage of decision-making will make both the positive and negative implications of a decision more accessible, thus making the alternative frame of reference accessible as well, and alleviating the effects of framing. Therefore we predict that people who are more prone to engaging in such elaboration will be less susceptible to information framing effects.

Our main hypothesis in the three studies that follow suggests that people who take a more balanced approach and take into account the potential positive and negative outcomes of a decision will be less influenced by the framing of the message, while people who engage in this kind of outcome elaboration to a lesser extent will exhibit strong framing effects.

**Hypothesis:** People's tendency to elaborate on potential outcomes will affect investors' susceptibility to the effects of framing. Framing effects will be found only for people with lower tendency to generate and evaluate potential outcomes.

## STUDY 1: GOAL FRAMING

In our first study we examine the interacting effects of investors' elaboration on potential outcomes tendencies and goal framing on persuasiveness of investment offers. Goal framing effects refer to findings that emphasizing either the positive consequences of undertaking an act to achieve a particular goal or the negative consequences of not undertaking it might be more or less persuasive in different situations.

Goal framing has not always produced consistent effects on behavior. Some of these discrepancies can be attributed to the influence of different moderators like issue involvement (Maheswaran and Meyers-Levy 1990), perceived efficacy (Block and Keller 1995), processing opportunity and motivation (Shiv, Edell, and Payne 2004), risky implications (Meyers-Levy and Maheswaran 2004), or differences in the perationalization of framing, (Shiv, Edell, and Payne2004). However, some researchers have suggested that differences in the decision makers' characteristics might also oderate the influence of positive versus negative goal frames (Rothman et al. 1993).

### **Design and procedure**

Study 1 uses a goal framing manipulation in order to examine the proposed hypothesis. One hundred and fifteen undergraduate students were randomly assigned to one of the two framing conditions. Respondents received extra credit for their participation. Each respondent was given a booklet that included an investment offer advertising a mutual fund offered by the fictional *Financial Investment Corporation*, and asked them to consider investing a hypothetical \$5000 for the coming year. The offer advocated the gains that investing in the fund might provide in the positive framing condition, and the gains that one might fail to realize by not



investing in the fund in the negative framing condition. The advertised mutual fund had an average return of 11% over the past ten years.

Subsequently the following set of measures were presented: intentions to invest in the fund, perceived risk measure, issue involvement measure, extent of cognitive processing measure, self-efficacy measure, measures of potential confounds – feelings of fear induces as a function of the treatments, informativeness, ease of comprehension, and credibility of the offer, and a check of the framing manipulation. Demographic information was also collected, along with measures of degree of knowledge about investments.

A separate questionnaire was administered as a part of a seemingly unrelated study, which contained the generation/evaluation dimension of the Elaboration on potential outcomes (EPO) scale ( $\alpha = .91$ ) (Yordanova, Inman, and Hulland 2005).

## **Results and discussion**

*Manipulation check.* We found main effects for framing, with subjects perceiving that the message emphasized the positive consequences of investing to a higher extent in the positive condition ( $M = 6.8$ ) than in the negative ( $M = 5.3$ ) condition, and that the message emphasized the negative consequences of not investing to a higher extent in the negative ( $M = 6.4$ ) than in the positive ( $M = 3.4$ ) condition (all pairs of means significantly different at  $p < .01$ ).

We checked for potential confounds and found that there are no differences in fear arousal across the two framing conditions, and the offers are perceived to be equally risky, informative, credible, and easy to comprehend across the two framing conditions (all  $F$ -s  $< 1$ ).

*Hypothesis testing.* Our hypothesis predicts that peoples' predispositions and cognitive processes will interact with information framing effects in their influence on consumer judgments. More specifically, it predicts that peoples' tendency to consider the potential positive

and negative consequences of their decisions will affect their susceptibility to framing effects. Based on a median split of scores on the EPO scale we divided participants in two groups – high and low on tendency to generate and evaluate potential outcomes, and ran an ANOVA on intention to invest. Issue involvement, cognitive processing, and self-efficacy were included as covariates in the ANOVA. There was strong support for our hypothesis as results revealed a significant interaction between framing and peoples' scores on the EPO scale's generation dimension ( $F = 4.90, p < .05$ ) (please refer to Figure 1). Intentions to invest of people who tend to generate and evaluate a greater number of potential outcomes were not affected by the framing manipulation ( $M_{positive\ frame} = 4.5; M_{negative\ frame} = 4.8, p < .6$ ), whereas people with lower such tendencies were significantly more persuaded to invest in the positive framing condition ( $M_{positive\ frame} = 5.4; M_{negative\ frame} = 4, p < .01$ ). While our findings reveal that people high in outcome elaboration tendencies are not affected by framing, for those low in elaboration we find framing effects consistent with past literature (Meyers-Levy and Maheswaran 2004).

## **STUDY 2: ATTRIBUTE FRAMING**

In this study we examine the interacting effects of investors' outcomes elaboration tendencies and information framing on intention to invest by employing a different framing manipulation in order to replicate our findings that stronger consumers' tendency to elaborate on potential outcomes results in smaller framing effects. We again expected to find framing effects only for participants with a weaker tendency to elaborate on potential outcomes, i.e. participants who score lower on the generation/evaluation dimension of the EPO scale.

We present participants with two mutual fund investment offers, and ask them to consider investing \$5000 in the two funds for the coming year. One offer is for a mutual fund that has a fixed return of 1.9%. This offer does not change in the three framing conditions. The other offer

is for a mutual fund that has a variable average return of 5.03% over the last ten years. This offer is framed differently in the three conditions: in the positive condition it is emphasized that the average return for the best five of the past ten years is 12%, in the negative condition it is emphasized that the average return for the worst five of the past ten years is negative 2%, and in the control condition only the average return for the past ten years is given. We expect that emphasizing the return from the best five of the past ten years, which is high and positive, will activate positive concepts associated with a high return such as financial gains, while emphasizing the return from the worst five of the past five years, which is negative, will activate concepts associated with negative return such as financial losses. Thus we expect that peoples' willingness to invest in the framed fund will be affected by the attribute framing manipulation such that it will be higher in the positive framing than in the control condition, and lower in the negative framing than in the control condition.

### **Design and procedure**

Two hundred and eighteen undergraduate students participated in the study in exchange for course credit and were randomly assigned to one of three conditions – positive, negative, and control. They were given a booklet that contained the two investment offers described earlier. Subsequently the same set of measures as the ones used in Study 1 were presented.

### **Results and discussion**

*Manipulation check.* We found main effects for framing, with subjects perceiving that the framed investment offer emphasized the positive consequences of investing to a higher extent in the positive condition ( $M = 7.3$ ) than in the negative ( $M = 3.6$ ) and control ( $M = 6$ ) conditions, and that the message emphasized the negative consequences of investing to a higher extent in the negative ( $M = 6.9$ ) than in the positive ( $M = 3.9$ ) and control ( $M = 4$ ) conditions (all pairs of

means significantly different at  $p < .01$  except for perceived negative consequences emphasized in the positive and control condition). We checked for potential confounds and found that there are no differences in fear arousal across the two framing conditions, and the offers are perceived to be equally risky, informative, credible, and easy to comprehend across the two framing conditions (all  $F$ -s  $< 1$ ).

*Hypothesis testing.* First, based on a median split of scores on the EPO scale we divided participants in two groups – high and low on tendency to generate and evaluate potential outcomes. An ANOVA performed on subjects' intentions to invest in the two mutual funds revealed a significant interaction between framing condition and subjects' tendency to generate and evaluate potential outcomes ( $p < .05$ ) (please refer to Figure 2). This pattern of results is in line with our conceptualization. When subjects' tendency to generate and evaluate potential outcomes is higher there are no significant framing effects across the three conditions ( $M_{positive\ frame} = 6.2$ ;  $M_{negative\ frame} = 6$ ,  $p < .6$ ). When this tendency is lower, however, there are significant effects of framing on intention to invest in the framed mutual fund ( $M_{positive\ frame} = 7.3$ ;  $M_{negative\ frame} = 5.4$ ,  $p < .01$ ).

### **STUDY 3: FORMAT FRAMING**

Study 3 employs a different framing manipulation in order to extend findings from the previous two studies, and confirm that people's tendencies to elaborate on potential positive and negative outcomes affect their susceptibility to framing effects when different framing manipulations are used. In difference with studies 1 and 2, where we used valence-related framing manipulations, the framing manipulation employed in this study involves the format in which information about the funds is presented. This study consists of a decision simulation asking respondents to consider a scenario in which they are offered the opportunity to invest in a

401k plan. Respondents have to indicate whether they would invest all or part of \$14,000 they have available in the 401k, and how they would invest the money across the funds offered. In two different conditions participants are offered either 3 or 15 mutual funds to choose from.<sup>2</sup> The mutual funds are three types - stock, bond or money market funds. In the three-fund condition participants get one of each, and in the fifteen-fund condition they get five of each. After participants decided how much to invest, and allocated the money to the available funds, they reported perceived diversification of their portfolio. Finally, participants were administered the EPO scale (Yordanova, Inman, and Hulland 2005).

We argue that providing investors with visual aids such as Morningstar-type boxes might help investors more accurately discern the risk/return tradeoffs among available funds and become more conscious of the different asset classes available. Thus we expect that this manipulation would improve their asset allocation efforts, which might lead to a more diversified portfolio. However, investors who are more inclined to consider the pros and cons of investing in each fund, i.e. investors with stronger tendencies to elaborate on the potential outcomes of investing as indicated by the EPO scale, are more conscious of the different asset classes available and are better able to discern risk/return tradeoffs between the available funds independent of the format in which the information is presented. Therefore, we expect that diversification tendencies of high outcome elaboration investors will not be affected by the Morningstar box manipulation, but this manipulation will significantly aid low outcome elaboration investors in their diversification efforts. In sum, we predict that similar to findings in studies 1 and 2, people with a higher tendency to elaborate on potential outcomes will exhibit less susceptibility to information framing effects.

### **Design and procedure**

The study stimuli were administered via a mail questionnaire which was sent to 2000 adults from a representative nationwide sample. Of the 147 respondents who returned the questionnaire, 90 chose to invest in the 401k plan and were included in our analysis.

The framing manipulation we employ in this study consists of presenting equivalent information using Morningstar style boxes as visual aids when describing the funds versus simply presenting the information in the text. Morningstar style boxes describe mutual funds by classifying them according to the characteristics of the investment instruments they invest in, thus helping investors more easily and accurately discern risk/return differences among the types of funds and categorize investments according to their different risk/return characteristics.

The dependent variable in this study is portfolio diversification operationalized as the number of different asset classes investors include in their portfolio. The mutual funds offered to participants represent three different asset classes – stock funds, money market funds and bond funds, therefore diversification can range from 1 to 3 depending on how many of the three classes are included in one's portfolio. In addition we measure perceived diversification, using two questions asking investors whether they think they created a highly diversified portfolio, and whether they tried to include several different asset classes in it.

### **Results and discussion**

First, based on a median split of scores on the EPO scale we divided participants in two groups – high and low on tendency to generate and evaluate potential outcomes. An ANOVA performed on the number of asset classes included in investors' portfolios revealed a significant interaction between framing condition and subjects' tendency to generate and evaluate potential outcomes ( $p < .05$ ) (Please refer to Figure 3). We find that investors who tend to consider the risks and benefits of investing in each fund before they make a decision, i.e. investors who score

higher on the generation-evaluation dimension of the EPO scale, are likely to accurately discern risk/return differences even when a visual aid is not provided to them. Hence these investors are less affected by the visual aid manipulation ( $M_{box\ frame} = 2.1$ ;  $M_{no-box\ frame} = 2.2$ ,  $p < .4$ ). On the other hand, investors who score lower on the scale are significantly affected by the visual aid manipulation, such that their diversification tendencies are significantly higher in the Mornigstar box condition than in the no-box condition ( $M_{box\ frame} = 2.5$ ;  $M_{no-box\ frame} = 1.9$ ,  $p < .05$ ). Results show that the Mornigstar box manipulation is particularly effective for low-elaboration investors whose diversification tendencies increase significantly in the box condition. As expected, the presence of the Morningstar box makes gain-loss tradeoffs of the various funds more salient, it primes low EPO investors to engage in a process of considering benefits and risks which is uncharacteristic for them. This process results in a significant increase of portfolio diversification. On the other hand, high EPO investors engage in such a process habitually and the presence of the Morningstar box does not affect their risk-benefit consideration and consequently their diversification tendencies.

## **GENERAL DISCUSSION**

In this paper we took one step in the direction of examining the relationship between message frames and people's dominant psychological traits and concerns. More specifically we examined the interactive influence of message framing and people's tendencies to consider the potential future outcomes on investment decisions.

Research has found that higher outcome elaboration people who generate a greater variety of positive and negative potential consequences, and evaluate their importance and likelihood before they make a decision, exhibit more effective self-regulation (Yordanova et al. 2005). Furthermore, researchers have argued that since investment decisions are typically made

to fulfill goals that are distant in time, these decisions are likely to be guided by processes of self-regulation (Zhou and Pham 2004). Therefore, high outcome elaboration investors who are more efficient in their self-regulation efforts, will have better investing and portfolio diversification habits. It is therefore very important for investor education programs and campaigns to target and reach low outcome elaboration investors and improve their investment practices. In the three studies we presented in this paper we showed that people who are low in their outcome elaboration tendencies are more susceptible to framing effects, which makes them particularly responsive to framed persuasive messages. These results have the potential to advance our knowledge of the investment decision making process and advance practice, policy and thought regarding how to enhance decision quality of consumer investing decisions.



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"In Four Months" versus "On June 11": The Impact of Time-Interval  
Description on Discounting and Time Perception  
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“IN FOUR MONTHS” VERSUS “ON JUNE 11”:  
THE IMPACT OF TIME-INTERVAL DESCRIPTION ON DISCOUNTING AND TIME  
PERCEPTION

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## Abstract

Five experiments examined the impact of manipulations of time-interval description on consumers' discount rates. In an initial study, consumers demanded more money to delay income for a given time interval when that interval was described by an extent of time instead of by dates. This tendency for consumers to discount the future more sharply under extent-based than date-based descriptions holds when consumers specify their own waiting times, when they choose among investments, and when they postpone debts. Results further suggest that this pattern may arise because time intervals are perceived as longer when described by extents than by dates.

“IN FOUR MONTHS” VERSUS “ON JUNE 11”:  
THE IMPACT OF TIME-INTERVAL DESCRIPTION ON DISCOUNTING AND TIME  
PERCEPTION

EXTENDED ABSTRACT

Consumers must often consider tradeoffs between future and present dollars, as when foregoing immediate consumption to save for a long-term goal, such as vacation or retirement. A long research tradition has examined such intertemporal tradeoffs, with much attention focusing on the phenomenon of positive *temporal discounting*: people perceive money available in the future as worth somewhat less than an equivalent amount available in the present. Understanding discounting is a vital pre-requisite for modeling and predicting intertemporal decisions (see Loewenstein, Read, and Baumeister 2003, for review).

This paper identifies a previously unexplored factor that substantially affects temporal discounting. Five experiments examine how discounting is impacted by whether time intervals are described in terms of temporal extent (e.g., number of months) or in terms of boundaries (e.g., dates). Specifically, when extents are considered, the amount of time in an interval is, by definition, highlighted, and attention is called explicitly to interval length. This attention to interval length may, in turn, make those intervals seem relatively long. In contrast, interval length may not loom large when dates are considered, and intervals marked by dates may seem relatively short. Thus, future dollars may appear more distant (and thus deserving of more discounting) when extent-based, instead of date-based, descriptors are used.

In experiment 1, participants ( $N = 356$ ) were asked to imagine an opportunity to postpone an immediate prize of specified value to obtain a “future” prize of unspecified greater value, received after a given time interval. Participants were asked to state the “future” prize amount

that would render waiting the time interval (and foregoing the immediate prize) worthwhile. The time intervals were either described by extents (e.g., “in eight months”) or dates (e.g., “on October 15<sup>th</sup>,” a date exactly eight months in the future). Across four such scenarios, participants requested reliably greater future prize amounts with extent than with date descriptions. In other words, participants discounted future dollars to a greater degree when the intervening interval was described by the amount of time to be waited than when it was described by the interval’s endpoint.

Experiment 2 was similarly structured, but the dollar amounts of the immediate and future prizes were fixed, and participants ( $N = 253$ ) were required to specify (either with an extent or a date) a time interval, such that they would be indifferent between receiving the smaller prize immediately and the larger prize after the interval passed. Across three separate scenarios, participants specifying extents were not willing to wait as long as participants specifying dates. This supports the idea that discount rates are higher (i.e., impatience increases) when future intervals are thought of in terms of lengths instead of endpoints.

Experiment 3 investigated whether interval description will even affect choices between pre-defined alternatives. Participants ( $N = 133$ ) considered six investments that each involved a choice between two options: a smaller, shorter-term payoff, and a larger, longer-term payoff. The times until the payoffs were either described by dates or by extents of time, and for each investment, participants were asked to select the payoff they preferred. In each case, participants were reliably less likely to select the longer-term payoff when the time intervals were described by extents than when they were described by dates. Behavior was thus again more present-focused when extent, instead of date, descriptors were used, indicating that increased discounting

under extent descriptors manifests even when participants must choose between pre-defined options.

Experiment 4 examined whether similar effects arise when consumers contemplate future losses. Participants ( $N = 86$ ) each read three scenarios that each presented an opportunity to defer a debt (e.g., a bill) for a fixed time interval. The interval was either described by an extent of time or by the date on which the deferral would end. Participants indicated the total amount they would be willing to pay post-deferral to avoid any immediate payment. Across the three scenarios, those considering extent-based intervals were willing to pay reliably more to defer their debts than were their date-based counterparts. As in the previous studies, participants seem to have discounted future dollars (here, future *debts*) more when time was described by extent.

Experiment 5 investigated a potential reason for these interval-description effects: although objective interval length does not vary with interval-description manipulations, *perceptions* of interval length may be affected by such manipulations. By explicitly mentioning amounts of time, extent descriptions might render upcoming delays more vivid and accessible, making intervals themselves seem rather long. To examine this possibility, in experiment 5, participants ( $N = 132$ ) each were asked to consider three time intervals, described either by extent or date. Participants were asked to rate the perceived length of each interval on a seven-point scale ranging from “seems very short” to “seems very long.” Indeed, participants facing extent-based intervals reported that the intervals seemed reliably longer than did those facing equivalent date-based intervals.

Individuals seemingly do not carry with them a constant discount rate that they apply consistently across transactions. Rather, discount rates are malleable, and are apparently even sensitive enough to fluctuate with slight changes in time-interval description. Across multiple

domains and despite disparate elicitation procedures, consumers consistently exhibited more discounting when time was described by extents instead of dates, perhaps because under the former description, the distance to future transactions actually seemed longer. The current results have clear implications for decisions involving intertemporal tradeoffs (such as investment decisions), and these results join years of research showing consumer discount rates to be more unstable, and intertemporal choice to be relatively less orderly, than early normative models posited (e.g., Samuelson 1937). Notably, the current work highlights the fact that even when all conceivable material factors in the decision situation are held constant, discount rates fluctuate in response to ostensibly irrelevant nuances generated by descriptions.



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A Query Theory Account of Asymmetries in Time Discounting  
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# **A QUERY THEORY ACCOUNT OF ASYMMETRIES IN TIME**

## **DISCOUNTING**

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## Abstract

We explore the process underlying asymmetric discounting in intertemporal choice. A popular explanation for this result uses Prospect Theory concept of loss aversion, but forgoes psychological insight by focusing on the parameterization of discount function. Using “Preferences-as-Memories” (PAM) framework, we posit that people in delay situation construct their preference by initially querying their memory for information about an object’s current uses, with the consequence that they are less likely to retrieve future-use information, whereas the reverse occurs for people in accelerate situation. Our results from two web-based studies support this proposition: type and organization of aspects do differ across delay and accelerate conditions.

## A QUERY THEORY ACCOUNT OF ASYMMETRIES IN TIME DISCOUNTING

Studies of preference for uncertain events, including events that are delayed in time, are central in decision research, and much has been learned over the past 30 years about the constructive nature of preferences and choice (Fischhoff, 1991; Hastie, 2001; Payne, Bettman, & Johnson, 1992). One phenomenon that this research has uncovered is an asymmetry in the way in which people discount delayed outcomes. In particular, people to discount outcomes occurring at a future date more when they are asked to delay consumption than when they are asked to accelerate it (Loewenstein, 1988). That is, people demand more to postpone consumption from now to the future than they are willing to pay to hasten consumption from the future to now. A popular explanation for this result makes use of Prospect Theory's concept of loss aversion (Kahneman & Tversky, 1979). Specifically, decision-makers who are asked to delay consumption are presumed to encode this situation as an immediate loss, whereas those who are asked to accelerate consumption are presumed to encode it as an immediate gain. Losses of a particular magnitude are more painful than gains of the same magnitude. While parsimonious, this explanation merely re-describes the discounting asymmetry in terms of a perceived gain/loss asymmetry and is moot on the psychological processes that might bring about the observed behavior.

In this paper we apply a new psychological framework of decision-making, the Preferences-As-Memories (PAM) account proposed by Weber and Johnson (2005) – to provide a process-level explanation of the time discounting asymmetry. Through its process account of decision making that makes use of well-established result about information representation, storage, and retrieval, the Preferences-As-Memory framework attempts to provide an integrative

account of seemingly disparate decision-making phenomena. It argues that phenomena like asymmetric discounting may result from a small set of memory processes known to underlie behavior in many other memory-dependent tasks. A basic assumption underlying the PAM framework is that decisions or valuation judgments are made by implicitly retrieving knowledge (attitudes, attributes, previous preferences, episodes, or events) from memory. The PAM framework stands in contrast to traditional approaches to decision-making which analyze choices and preferences in terms of the assignment of utilities to choice objects based upon the mathematical transformation and integration of choice-object features (see Tversky & Kahneman, 1981; Von Neumann & Morgenstern, 1953, for examples). Rather than conceive of decisions as the optimization of outcomes evaluated along some well-defined utility function, we see them as the product of the same memory processes that underlie performance in many other non-decision-making domains.

#### PAM FRAMEWORK, QUERY THEORY, AND INTERTEMPORAL DISCOUNTING

The Preferences-As-Memory framework and in particular its most central explanatory component, query theory (Johnson, Haeubl, & Kienan, 2005), accounts for asymmetric discounting in terms of asymmetries in the implicit retrieval of information during preference construction: Situational and task features determine the type and order of memory queries that are used to retrieve information. More specifically, PAM's Query Theory account posits that (a) decision makers *decompose* their preference construction into a series of queries; (b) these queries are executed in a different order as a function of characteristics of the choice-situation or choice task; and (c) the order of queries can lead to asymmetries in the information retrieved, with less successful retrieval for later queries due to memory interference.

A major assumption of PAM's Query Theory account of how preferences are generated is that people consult their memory (or the external environment) with a series of component queries about the attributes of choice alternatives, in particular their merits or liabilities. When asked to pick the preferred CD from a choice set of three, for example, people consult their memory about previous experiences with those CDs or similar ones. Because it helps with integration, these queries are typically grouped by valence, e.g., memory is first queried about what I like about a CD, and only after no additional positive attributes are generated may a query about negative attributes ensue. We also assume that most tasks suggest a natural order in which sequential (and often diametrically opposed) queries are posed. Being asked to pick one CD out of three triggers queries about positive attributes first, whereas being asked to reject one of those CDs naturally triggers queries about each CD's negative attributes first (Shafir, Simonson, & Tversky, 1993). The generation of buying vs. selling prices as a way of expressing preference suggests a similar difference in query order. A home-owner asked to provide a selling-price for her house will first consult her memory about positive features of the house before considering downsides, whereas a potential buyer will most likely pose these queries in the opposite order (Birnbaum & Stegner, 1979). Query order is assumed to be determined by what Carmon and Ariely (2000) called a focus on the foregone. Because of interference processes, described below, the order on which queries are posed is important, i.e., it affects the internal evidence generated by memory retrieval, and thus preference. We do not assume that such queries are explicit or conscious, though they can be. Instead, we assume that they occur without conscious effort and are part and parcel of automatic preference-construction processes.

One memory phenomenon particularly relevant to the Preferences-As-Memory framework and Query Theory concerns the dynamic effects of initial queries on the probability



of successfully retrieving subsequent information from memory. It is well known that the cued retrieval of a particular subset of items can negatively impact the successful retrieval of items from the remainder of the total set (Anderson, Bjork, & Bjork, 1994; Roediger, 1973; Slamecka, 1968; M. J. Watkins, 1975 ; O. C. Watkins & Watkins, 1975). This effect occurs for two reasons: (1) Successful retrieval of the first subset typically requires the individual to inhibit retrieval of the remaining items, leading to lower-than-baseline accessibility for the items that have yet to be retrieved (a **retrieval-induced forgetting effect** – Anderson, et al., 1994, 1995; see also Perfect, Moulin, Conway, & Perry, 2002; Veling & van Knippenberg, 2004); (2) Heightened accessibility of the initially-retrieved items can increase the probability of their intrusion during attempts to retrieve the remaining items, leading to response competition and interference during subsequent retrieval (a **part-set cuing effect** – Mueller & Watkins, 1977; see also Peynircioglu & Moro, 1995). Part-set cuing is particularly relevant to the PAM model because of the strong similarity between the natural conditions that surround memory retrieval during preference construction and the experimental conditions that bring about the part-set cuing effect. In particular, part-set cuing effects are found when, after list learning, the experimenter asks participants to recall all list items in the presence or absence of cues for just some of the items. Similarly, when constructing a preference, the PAM model assumes that the decision maker generates an initial query the results of which provide only a portion of the total set of information relevant to the preference for the object in the choice situation. The only differences between the natural situation and the experimental conditions in the part-set cuing effect, then, are that, in the natural situation, the initial cues are generated by the individual himself or herself (vs. by an external agent), and the information about the choice object is already stored in the individual's long-term memory prior to encountering the choice situation. It is important to note

that the explanation for why part-set cuing occurs is intimately connected to the failures of inhibitory control mechanisms during the retrieval process: To overcome interference, one must inhibit the recall of the initially-retrieved items.

The asymmetries observed in intertemporal discounting can be explained by a combination of both part-set cuing and fan effects, with representations of the current uses of an object being potentially more structured and better-organized than representations of the future uses of an object. Query theory assumes that decision-makers in a delay situation (who are expecting immediate consumption) construct their time preference by initially querying their memory for information favoring immediate consumption, followed by queries for reasons to delay consumption. People in accelerate situations (who are expecting consumption at some future date) are assumed to do the reverse. Not only are decision-makers in a delayed-choice situation more likely to focus initially on the current uses of the object, but their more diffuse representation of the object's future uses is likely to add to the retrieval asymmetries induced by the initial queries, producing an even greater trend towards impatience and higher discounting.

We hypothesize that (1) discount rates are a result of the number of arguments (implicitly or explicitly) generated for patience vs. impatience; (2) asymmetric discounting under acceleration or delay is the result of differences in the order in which arguments for being patient vs. impatient are being generated; (3) asymmetries in discount rates can be reduced or eliminated by manipulating query order, i.e., by getting decision makers to generate arguments for being patient vs. impatient in the order not naturally used in their (accelerate or delay) condition.

## STUDY

The following experiment was conducted as part of a larger, web-based decision-making survey. In our study, 238 respondents were asked to choose between immediate receipt of an

Amazon gift certificate of a given size and receipt of a larger gift certificate three months later. Participants were randomly assigned to either a delay condition (where they were initially promised immediate receipt of a \$50 gift certificate, but could opt for a larger gift certificate to be issued in three months) or an accelerate condition (where they were initially promised receipt of a \$75 gift certificate in three months, but could opt for a smaller gift certificate to be issued immediately). Then a choice titration procedure determined the value of the alternative gift certificate that would make them indifferent between it and their initial assignment. Before making their choices, respondents completed an aspect listing task, which asked them to type any thoughts that crossed their minds (one at a time) about the decision that they were about to make (that is, whether to receive a smaller gift certificate now or a larger amount three months later). After providing us with their choices, respondents also rated the aspects they had provided on a number of characteristics, which allowed us to code each one as favoring either immediate receipt (impatient thoughts that were pro-now or anti-later) or future receipt (patient thoughts that were pro-later or anti-now).

#### Method

Participants completed a series of five tasks in the following order: (a) familiarization/practice task, (b) consideration task, (c) aspect listing task, (d) preference expression task, and (e) aspect coding.

*Aspect listing and aspect coding tasks.* Two practice tasks were designed to familiarize participants with the web interface and with the aspect listing task, a methodology developed within the Preferences-As-Memory experimental paradigm. Getting decision makers to list their thoughts and considerations in the process of arriving at an expression of preference (e.g., the setting of a price) is a way of making explicit the implicit generation of evidence for their price judgment. Analysis of these aspects provides us with a way to check the assumptions made by

Query Theory about the clustering of reasons for or against a transaction and about differences in the order of queries and their answers as a function of task condition. Prior research suggests that thought-listing protocols like other concurrent verbal protocols do not unduly impair decision-making or yield other serious reactive effects (M.M.S. Johnson, 1993). Use of this method in a different domain, namely the endowment effect, has shown that explicit aspect listings seem to provide evidence consistent with a PAM and Query Theory account of evidence retrieval during preference construction (see Johnson, Haeubl, & Keinan, 2005).

Since respondents know best how to interpret their sometimes somewhat cryptic listed arguments or aspects, they were asked at the end of the study to code the aspects they had previously listed on a variety of dimensions, discussed below.

*Familiarization tasks.* The first practice task trained respondents to list aspects one at a time by asking them to type the words corresponding to the numbers one through seven, one at a time into the PC interface. Recorded aspects were shown on the computer screen (one per row) below the aspect input box. The second practice task asked participants to enter substantive thought-units (i.e., phrases or sentences, one thought at a time) about the desirability of owning a convertible car.

*Consideration task.* In a between-subject design, participants were then given an intertemporal choice scenario in which they were asked to reveal either how much they would require in order to *delay* receipt of some good for some specified amount of time, or how much less they would be willing to accept in order to *accelerate* its receipt. In this scenario, the choice object was an Amazon.com gift certificate, and the time difference between immediate and future receipt of the gift certificate was three months. Participants who were assigned to the “delay” condition in this scenario were asked to consider how much they would need the gift

certificate, placed in an envelope and available three months from now, to be worth in order for it to be preferable to an otherwise identical gift certificate worth \$50 and available now. In contrast, participants who were assigned to the “accelerate” condition were asked to consider how much smaller the gift certificate, placed in an envelope and available now, could be worth before they would begin preferring an otherwise identical gift certificate worth \$75 and available three months from now. It was made clear to the participants that one of them would be chosen at random to have this decision be for real (i.e., that one participant in this study would be mailed an actual gift certificate). Participants thus had an incentive to answer the time-delay money-amount tradeoff question truthfully, as their answers would determine the value and time-delivery of the gift certificate they would receive, should they be the lucky person selected for actual receipt.

*Aspect listing task.* Before participants were allowed to indicate their choice, they were asked to list their thoughts and feelings about the decision that they had been asked to consider, one aspect at a time. Participants were presented with a box on their computer screen, equal to the height of one line of text, in which a single sentence or phrase could be typed. Instructions on the first screen informed participants that they were to type in one thought at a time in the order in which they occurred to them. Each recorded thought was shown below the box, so that participants could keep track of their previously entered aspects. A button appeared at the bottom of the screen to be clicked once a participant had entered all the thoughts that came to mind.

*Preference expression task.* A choice titration procedure, often used in experimental economics (Read & Read, 2004), was used to elicit decision makers’ preference between a larger/later gift certificate and a smaller/immediate gift certificate. Participants were asked to make a binary choice for each of a series of eleven comparisons, marking whether they preferred

the gift certificate to which they had been assigned (a \$50 immediate gift certificate in the delay condition and a \$75 delayed gift certificate in the accelerate condition) to a (delayed or immediate) gift certificate for an alternate amount. The alternatives increased (delay condition) or decreased (accelerate condition) in \$5 increments. This choice titration procedure was employed because it significantly reduces noise in valuation responses compared to simply asking respondents for values.

*Aspect coding task.* Finally, all participants were asked to code each of the aspects or thoughts they had generated during the aspect listing task. Specifically, this task presented the listed aspects along with instructions for coding each one on two dimensions: (a) whether the thought itself was about now or later, and (b) whether the thought favored receipt of the gift certificate now or later. Participants were also asked to indicate their familiarity with Amazon gift certificates.

## Results

Participants who showed evidence of careless or fraudulent responses, as diagnosed by (a) the generation of random or nonsensical aspect listings or (b) by attempts to participate in the study more than once (as revealed by their IP addresses and email addresses). As a result, the data from 221 participants were used for the analyses.

*Time Discounting.* The discount factor of each participant was computed as the ratio of gift certificate amount for immediate receipt to the amount for delayed receipt, adjusted by time of delay. Thus a discount factor of 1 indicates no time discounting, and smaller discount factors indicate greater discounting. We replicated previous findings that participants in the delay condition show higher discounting than participants in the accelerate condition ( $M_{ac}=0.56$ ,  $M_{de}=0.34$ ,  $t\text{-ratio}=5.88$ ,  $p<0.0001$ ).

*Aspect listings.* Because thought listings varied in length, ranging from as few as one to as many as twelve thoughts (Min=1, Max=12, M=3.22), we used the proportion of impatient thoughts to compare the frequency of such thoughts in the two conditions. Our results support our hypotheses: In both the accelerate and the delay condition, aspects clustered, i.e., patient thoughts tended to occur together, as did impatient thoughts. In addition, the order in which the two clusters of arguments were generated differed between conditions. For participants in the delay condition, we predicted that aspect protocols would tend to consist of mostly impatient aspects before patient aspects; the reverse should be true for participants in the accelerate condition. We tested this prediction by calculating for each respondent a score that reflects his/her tendency to produce impatient aspects before patient ones. This score, the Standardized Median Rank Difference of Aspect Types (SMRD), is defined as  $SMRD = 2(MR_i - MR_p)/n$ , where:

$MR_d$  = median rank of patient aspects in a participant's sequence,

$MR_i$  = median rank of impatient aspects in a participant's sequence, and

$n$  = total number of aspects in a participant's sequence.

The SMRD score can take on values from -1.0 (all impatient aspects proceed patient aspects) to +1.0 (all patient aspects proceed impatient aspects). This index is similar to the SMRD measure used in Johnson, Haeubl, and Keinan (2005). Our results show that participants in the delay condition have a tendency to produce impatient aspects before patient aspects ( $M_{de}=-0.22$ ,  $M_{ac}=0.18$ , F-ratio=7.7113,  $p<0.01$ ).

Finally, we found evidence for inhibition or part-set cuing, i.e., the number of patient or impatient thoughts was significantly greater when these aspects generated earlier rather than later. In other words, generation of patient thoughts seemed to inhibit subsequent generation of

impatient thoughts, and vice versa. As predicted by Query Theory, participants in the delay condition as a result produced proportionally more impatient thoughts (pro-now or anti-later) than participants in the accelerate condition ( $M_{de}=0.39$ ,  $M_{ac}=0.29$ ,  $t\text{-ratio}=2.082$ ,  $p<0.05$ ).

*Mediation of difference in discount factors by difference in generated aspects.*

Mediation analysis provides statistical evidence of the causal role of aspect generation (and differences in aspect generation and preference construction as the result of task conditions) in decision makers' discount factors. If differences in the explicit (and presumably also implicit) generation of patient and impatient arguments is responsible for the observed asymmetry in discounting when people are asked to accelerate or delay consumption (i.e., task condition), then the significance of task condition as a predictor of discount factor should be reduced or eliminated when we add the number and clustering of patient and impatient thoughts as predictor variables, following the logic of the three-step regression procedure specified by Baron and Kenny (1986). In addition to the number of patient and impatient thoughts and their clustering (SMRD score), we also examined serial position effects. In particular, we found evidence of both primacy and recency, in the sense that patient thoughts that occurred either very early or very late in the list of generated aspects had greater impact on the discount factor (making the decision maker less impatient) than patient thoughts that were generated towards the middle of the list. When number of patient and impatient thoughts, their clustering and their serial position were added to a regression predicting discount factor as a function of task condition, the multiple R-square increased from .097 to .408. In addition, the F-ratio of the effect of task condition was reduced from 17.43 ( $p<.0001$ ) to 13.53 ( $p<.0003$ ), showing partial mediation.



## Discussion

The choice-inferred gift-certificate amounts that made respondents indifferent between immediate vs. delayed receipt replicated previously observed asymmetries in discounting, with higher discount rates in the delay than in the accelerate condition. Respondents' aspect listings differed as predicted by Query Theory: Patient thoughts were more frequent and occurred earlier in the accelerate condition and impatient thoughts were more frequent and occurred earlier in the delay condition. Both the proportion of impatient thoughts and an index of when they occurred differed significantly between conditions. These two aspect variables (proportion and time-order of impatient thoughts) and their serial order were not only significant predictors of respondents' time discount rates, but also partially mediated the effect of being in the accelerate vs. delay condition.

Our next step is to test the hypothesis that the asymmetry in discount rates between decision-makers in a delay situation and those in an accelerate condition can be reduced or eliminated by manipulating the order in which memory is queried. We are currently conducting the next phase of this research program, also over the Internet. This study is identical to the study reported in this paper, except that the aspect listing task has been modified to include a "query order" manipulation. Specifically, half of the participants in each of the two conditions (delay vs. accelerate) are assigned to a "reasons favoring immediate use first" condition in which they are first prompted to think about reasons favoring immediate uses of the gift certificate, followed by a prompt to think about reasons favoring later uses of the gift certificate. By contrast, the other half of the participants are assigned to a "reasons favoring future uses first" condition in which they are first prompted to think about reasons favoring future uses of the gift certificate, and are then prompted to think about reasons favoring the immediate uses of the gift certificate. Based

on the results from the first phase of our study, participants who are in the “delay” condition and who are asked to think first about the *immediate* uses of the choice object, as well as participants who are in the “accelerate” condition and are asked to first think about the *future* uses of the choice object, will be classified as being in a “preference consistent” condition. This is because the prescribed order is consistent with the natural order in which current and future uses are considered in each condition. The other two conditions will be classified as “preference-inconsistent.” In summary, this experiment will be a 2 (Delay vs. Accelerate condition) x 2 (Query Order: Preference Consistent vs. Preference Inconsistent) design. We predict that reversals in query order will reduce asymmetric discounting as a function of task condition and that discount factors will be predicted by the number and order of generated reasons.

In other ongoing work, we extend our theoretical analysis by using Query Theory to account for both time discounting and its opposite, namely savoring (Loewenstein, 1987).

## CONCLUSION

We explored the processes underlying asymmetric discounting when people consider acceleration vs. delay of consumption in intertemporal choice situations. Using the Preferences-As-Memories framework and Query Theory, we hypothesized that people in delay situations first query their memory for information favoring immediate consumption followed by queries for delayed consumption; people in accelerate situations do the reverse. Research on memory retrieval and interference suggests that participants should produce fewer reasons in the second category queried. Our results support these hypotheses: the number and clustering of patient and impatient reasons in an aspect-listing task differ between conditions; these differences predict discount rates and mediate observed differences in discount rates between accelerate and delay conditions.

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**SATURDAY, FEB 11**

**Saturday, February 11<sup>th</sup>**

**8:00am – 9:15am: Session 4 (Competitive Paper Sessions)**

**Session 4A (Card Room)**

**Issues in Sports Marketing**

[The Role of Significant Personal Affiliation in Becoming and Remaining a Fan: A Grounded Theory Study of Highly-Committed Sport Fans](#)

*Micheletto Melinda, Saint Michael's College*

[How Fans Consume Sports - Passion, Passport or the Means to an End?](#)

*Dempsey Melanie, Ryerson University*

*Zhang Meng, University of Toronto*

[The Match-up Hypothesis and Sports Marketing: The Role of Athlete Congruence in Sport and Non-Sport Advertisements](#)

*Koernig Stephen, DePaul University*

*Boyd Tom, California State University, Fullerton*

[Flashing Lights and Bright Colors: The Effects of Situational Information in Gaming Venues on Psychological Responses and Behavior](#)

*Finlay Karen, Kanetkar Vinay, Marmurek Harvey H. C, Londerville Jane, University of Guelph*

**Session 4B (Mirage Bar)**

**Persuading Consumers to Change their Beliefs and Behaviors**

[The Effect of Gender and Group-membership on Anti-smoking Beliefs, Susceptibility to Anti-smoking Messages, and Anti-smoking Activism.](#)

*Bhatnagar Namita, University of Manitoba*

[In Search of Effective Anti-drink and Driving Advertising Themes: A Comparison of four Themes and their Effects on High-Risk Audience](#)

*Balabanis George\*, Mitchell Vincent Wayne, Manson Charlotte, Katsikeas Constantine*

*\*City University*

[Tailoring Health Messages: Determinants of Motivation to Change](#)

*Peter Paula, Virginia Tech*

*Hampton Brandy, Virginia Tech*

*Brinberg David, Virginia Tech*

[Intrapersonal Variation in Consumer Susceptibility to Normative Influence: Antecedents and Consequences](#)

*Orth Ulrich R., Oregon State University*

*Kahle Lynn R., University of Oregon*

**Session 4C (Illusions Dance Club)**

**Issues Related to Branding II**

[System Sales: Managing Synergy Through Multiple Products](#)

*Montoya Detra, Naomi Mandel, Stephen M. Nowlis, Arizona State University*

[The Polarization Effect of Perceived Entitativity on Family Brand Evaluations](#)

*Chang Joseph, Malaspina University-College*

*Lou Yung-Chien, National Chengchi University*

[How Does Brand Name—Logo Coherence Affect Brand Attitudes? An Investigation of Moderating Effects](#)

*Bruno Kocher, University of Lausanne*

*Czellar Sandor, HEC School of Management*

[Brands As Means For Achieving Consumer Goals--A New Perspective on Branding and Memory-based Choice](#)

*Zhang, Meng, Mitchell Andrew, University of Toronto*

**9:20am – 10:35am: Session 5 (Special Sessions)**

[Session 5A \(Card Room\)](#)

**Affective and Cognitive Processes in Self-Control**

*Chair: Anat Keinan, Columbia University*

*Discussant: Tom Meyvis, New York University*

A Bite to Whet the Reward Appetite: Influence of Sampling on Appetitive Behaviors

*Monica Wadhwa, Stanford University*

*Baba Shiv, Stanford University*

*Stephen Nowlis, Arizona State University*

Repenting Hyperopia: An Analysis of Self-Control Regrets

*Ran Kivetz, Columbia University*

*Anat Keinan, Columbia University*



It is In the Mindset! The Effect of Processing Specificity on Consumer Impatience

*Selin A. Malkoc, The University of North Carolina - Chapel Hill*

*Gal Zauberan, The University of North Carolina - Chapel Hill*

*James R. Bettman, Duke University*

### **Session 5B (Mirage Bar)**

#### **Unbearable Weight of the Weight: Subversive Biases in Food Consumption Decisions**

*Chairs: Wan Fang, University of Manitoba*

*Raghunathan Rajagopal, The University of Texas at Austin*

The Influence of the 'Unhealthy = Tasty Intuition' on Food Consumption Decisions

*Rajagopal Raghunathan, The University of Texas at Austin*

*Rebecca Walker, The University of Texas at Austin*

*Wayne Hoyer, The University of Texas at Austin*

Controllability and Positive Stereotypes on Obesity Stigmatization

*Wan Fang, University of Manitoba*

*Sridhar Samu, University of Manitoba*

*Namita Bhatnagar, University of Manitoba*

Relationship between Elaboration on Potential Outcomes and Deleterious Consumption: The Case of Obesity, Healthy Lifestyle, and Self-Control

*Gergana Yordanova, University of Pittsburgh*

*Jeff Inman, University of Pittsburgh*

*John Hulland, University of Pittsburgh*

Effect of Anti-Obesity Media on Body Image and Antifat Attitudes

*Laura Jakul, University of Manitoba*

*Norah Vincent, University of Manitoba*

### **Session 5C (Illusions Dance Club)**

#### **Categories in Context: How Categories and Categorization Impact Consumer Choices**

*Chair: Ülkümen and Vicki G. Morwitz, New York University*

Motivated Assimilation and Contrast in Category-Based Decision Making

*Cait Poynor, University of South Carolina*

*Diehl Kristin, University of Southern California*

The Role of Positioning in Building Evolutionary Bridges for Revolutionary Products

*Steve Hoeffler, Malhotra Claudia K, University of North Carolina – Chapel Hill  
Moreau Page C. University of Colorado, Boulder*

Broad Mind-Sets to Broad Baskets: The Effect of Manipulating Category Width on Preferences for New Products

*Gülden Ülkümen, Morwitz Vicki, Chakravarti Amitav, New York University*

[Perceptual Processing of Product Design Information: Implications for Brand Categorization](#)

*Kreuzbauer Robert, University of Illinois at Urbana-Champaign  
Malter Alan, University of Arizona*

**10:45am – 12:00 noon Session 6 (Competitive Paper Sessions)**

**Session 6A (Card Room)**

**The Yin and Yang of Consumer Emotions**

[Doing Better but Feeling Worse: Looking for the “Best” Job Undermines Satisfaction](#)

*Iyengar Sheena, Wells Rachael E., Columbia University  
Schwartz Barry, Swarthmore College*

[Who Chose the Forgone Alternative: The Effects of Social Comparison on Regret](#)

*Page Karen; Mittal Vikas; Inman J. Jeffrey, University of Pittsburgh*

[The Impact of the Guilt Emotion when Benefiting at the Expense of the Seller](#)

*Steenhaut Sarah, van Kenhove Patrick, Ghent University*

[You Don't Like It, But You Want to Get It](#)

*Shen Hao, Wyer Robert S Jr., Hong Kong University of Science and Technology*

## **Session 6B (Mirage Bar)**

### **Pot-Pourri of Topics in Consumer Behavior**

#### [Literacy and Consumer Memory](#)

*Torelli Carlos, University of Illinois at Urbana-Champaign*

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

*Xia Lan, Bentley College*

#### [Situational Influences on Consumption Urges and Impulsive Consumption](#)

*Aguirre-Rodriguez Alexandra, University of Illinois at Urbana-Champaign*

#### [Peacocks, Porsches and Thorstein Veblen: Conspicuous Consumption as Sexual Signaling](#)

*Sundie Jill, University of Houston*

*Kenrick Douglas T., Arizona State University*

#### [Homo consumericus: The Evolutionary Roots of Consumption Phenomena](#)

*Saad Gad, Concordia University*

## **Session 6C (Illusions Dance Club)**

### **Tastes, Motives, and Mindsets: The Role of “Self” in Consumer Behavior**

#### [Where Do People Diverge From Others? Tastes As Signals of Identity](#)

*Berger Jonah, Chip Heath, Stanford University*

#### [Reconsidering the Relationship between Consumer Motives and Personal Values](#)

*Geeroms Nele, van Kenhove Patrick, Ghent University*

#### [Using Indirect Questioning To Pinpoint and Reduce Social Desirability Bias](#)

*Cronley Maria L., Neeley Sabrina M. Miami University*

*Silvera David, University of Tromso, Norway*

#### [Abstract and Concrete Mindsets and the Activation of Self-Relevant Goals](#)

*Torelli Carlos, University of Illinois at Urbana-Champaign*

**SATURDAY, FEB 11: SESSION ABSTRACTS/PAPERS**

**Saturday, February 11<sup>th</sup>**

**8:00am – 9:15am: Session 4 (Competitive Paper Sessions)**

**Session 4A (Card Room)**

The Role of Significant Personal Affiliation in Becoming and Remaining a Fan:

A Grounded Theory Study of Highly-Committed Sport Fans

*Micheletto Melinda, Saint Michael's College*

## Abstract

Researchers have found that at least two-thirds of Americans consider themselves to be a sport fan. Over the past three decades, researchers have examined this sport socialization phenomenon. The results have tended to illustrate a rather common theme, that is, family and peer influences, characteristics/performance (success) of the team, and geographical location, are central to becoming a sport fan.

This study, employing a Grounded Theory methodology, attempted to explore the sport fan experience from the participant's perspective. The study relied on in-depth interviews with fourteen highly-committed sports fans (nine male and five female) and excerpts submitted by sports fans on two popular sport-related websites ([www.SportingNews.com](http://www.SportingNews.com) and [www.ESPN.com](http://www.ESPN.com)).

The study found, as supported by the literature, that location, family, and team/player characteristics, were significant factors in becoming a sport fan. A new contribution of this study, however, was the notion of significant personal affiliation with a sport entity. In this study, data reflected that individuals were able to recall personal interactions with players that were extremely influential in their desire to become a sports fan. Likewise, a significant personal affiliation can occur with a team (e.g., attended the school or worked for a university). The strength of significant personal affiliation appears to influence an individual's desire to become (and remain) a sport fan. This paper will discuss the results and implications of this personal affiliation factor.

**THE ROLE OF SIGNIFICANT PERSONAL AFFILIATION  
IN BECOMING AND REMAINING A FAN:  
A GROUNDED THEORY STUDY OF HIGHLY-COMMITTED SPORT FANS**

**INTRODUCTION**

Although sport spectators and loyal fans have existed for thousands of years, the attention given to the study of sports fans is arguably greater now than at any point in history. Through the past three decades, researchers have found that at least two-thirds of Americans consider themselves to be a sport fan (Anderson and Stone, 1981; Lieberman, 1991; Carroll, 2005). Research has shown that loyal customers, particularly in the sporting arena, engage in definitive overt behavior (e.g., attending games, watching games on television, buying licensed merchandise, becoming violent toward fans of the opposing team). For all organizations, focusing on loyal customers is recognized as a cost-efficient and effective strategy in building and maintaining market share (Jarvis and Mayo, 1986) and developing a sustainable competitive advantage (Kotler and Singh, 1981). Gaining an understanding of the factors involved in becoming and remaining a sport fan may assist marketing executives to be proactive in their marketing approaches as well as facilitate appropriate responses and subsequent marketing strategies geared toward a particular sport, league, team, athlete, or coach.

## REVIEW OF LITERATURE

### Sport Fan

A sport fan is considered an ardent devotee or an enthusiast. Taylor (1991) suggests that fanatics act with a passion that contributes to excessive or extreme commitment to beliefs, feelings, and actions. Considerable evidence in the literature indicates that sport fans derive a great deal of personal meaning from their choice and affiliation with a sports team.

Images of the sport fan can differ greatly. The sport fan is often described as a “lazy, beer-drinking, couch potato,” (Zillmann, Bryant and Sapolsky, 1989) with pathological obsessions that negatively impact interpersonal relationships and a propensity toward violent behavior. However, others describe the sport fan as a happy, enthusiastic supporter, participating in an activity that brings him pleasure. Regardless of one’s perception of the sport fan, there are certain benefits that people derive from being a sport fan. According to Sloan (1979), five theories explain the appeal of sports: salubrious effects, stress and stimulation seeking, catharsis and aggression, entertainment, and achievement seeking.

Developing, or having, an interest in sport, does not qualify an individual as a loyal sport fan. In short, a fan is one who makes a personal investment in sports by participating in a sport, spending time watching live events or televised games, listening to sports on the radio, reading about sports in newspapers, magazines, and/or other sport-related publications, using sports as a topic of conversation, and/or spending money on sport-related products or paraphernalia.

### Fan Loyalty



Fan loyalty has been described as the steadfast allegiance to a person or cause (Pritchard, 1991) and a level of psychological commitment and persistent behavior toward a sport entity. A loyal fan could demonstrate support for a given sport entity by remaining psychologically committed (continuing to support a sport, league, team, athlete, or coach during difficult times) and by engaging in specific sport-related behaviors (e.g., purchasing game tickets and souvenirs and other sport-related products). Competition for support and money from sports fans has increased, in part, due to an increased number of sport and non-sport entertainment options. With mounting financial pressures, sports organizations cannot afford fluctuations in fan support and need to continue to gain and maintain a large base of loyal fans. Cialdini, Borden, Thorne, Walker, Freeman, and Sloan (1976) found that individuals increased their association with a successful sports team and decreased their association when the team was not successful.

Researchers have described a continuum of fan loyalty and team identification as ranging from “die-hard fans” to “fair-weather fans”(Smith, Patterson, Williams and Hogg, 1981; Hirt, Zillmann, Erickson and Kennedy, 1992). It has been found that “die-hard fans” (also termed “highly identified”) remain committed and retain their allegiance to *their* team even in a time of loss. However, “fair-weather fans” seem to be committed only when the team is on a winning streak, yet denounce any association with the team after repeated losses (Cialdini et al., 1976). In sports, a winning team is, in and of itself, insufficient to fill stadiums with fans. Sport marketing is crucial to successfully entice spectators to flock to sporting events. Sport marketers must realize that “fan loyalty to sports leagues and teams is gradually becoming a memory now that athletes and teams alike can be uprooted on a moment’s notice” (Passikoff, 1997).

Identification

Team identification refers to the extent to which a fan feels psychologically connected to a team (Sloan, 1979; Hirt et al., 1992). This term has also been used to describe a fan's loyalty to a specific athlete (Rinehart, 1998). Although there is agreement that highly identified fans differ from those low in team identification on several motivational and behavioral (outcome) dimensions, for the most part, highly identified fans have been viewed as being similar.

Many researchers have found identification may be an important modifier for spectator behavior (Schurr, Wittig, Ruble and Ellen, 1987; Zillmann, Bryant and Sapolsky, 1989). Also, the degree of team identification has been found to be a major predictor of spectator behaviors, including affective reactions (Hirt et al., 1992), arousal (Wann and Branscombe, 1992), and tendencies to increase or decrease associations with the target team (Wann, 1993).

It has been shown that identification with a team can become central to some people's identity, particularly those with high team identification (Cialdini et al., 1976). Because of this close association with a team, highly identified fans often view the team as a reflection of themselves and the team becomes an extension of the individual (Tajfel and Turner, 1979). The team's successes become the fan's successes and vice-versa.

## PURPOSE

Studies concerning the intensity of identification and its impact on fan behavior have been used to help explain many economical, social, and psychological sport-related behaviors. However, until now, no theory has been put forth that attempts to explain how a significant personal affiliation with a sport entity, not simply team identification, impacts the propensity to become and remain a sport fan. In a society where there has been a proliferation of professional sports, an explosion of negative sport-related incidents, and a strong challenge to attract and

maintain fans, it is essential that sports organizations understand what it means to be a fan and how fans develop and maintain this level of fanship.

## **METHODOLOGY**

Grounded Theory methodology was used to guide the data collection and analysis to further explore the factors that influenced a person's desire to become and remain a sport fan. The study relied on in-depth interviews with fourteen highly-committed sport fans (nine male and five female) and excerpts submitted by sport fans on two popular sport-related websites ([www.SportingNews.com](http://www.SportingNews.com) and [www.ESPN.com](http://www.ESPN.com)). The interview transcripts, as well as excerpts from the two sport-related websites, were used to understand participant's descriptions of what it means to be a sport fan and examine the factors and conditions that influence becoming and remaining a sport fan.

Three methods of participant recruitment were utilized for this study. The researcher solicited participants by posting notices in and around a mid-west community (e.g., college campus locations, bookstores), contacted a local sports broadcaster that was running a sports trivia contest and sought his help with locating potential participants, and participants were good sources of additional participants. Prior to the each interview, participants were asked to complete a short questionnaire asking the participant to list and elaborate upon their favorite sport entities (e.g., team, athlete), list some events that "got their attention," as well as several sociodemographic questions. Participation was strictly voluntary with no consequences to participants for failure to take part in, or withdrawing from, the study. Participants were briefly told of the study's purpose, asked for permission to audiotape the interview, and assured of anonymity.

Consistent with the research design using Grounded Theory, sample size was determined by the emerging themes and sample selection continued until theoretical saturation occurred. Sampling, data collection, coding, and analysis took place simultaneously in a circular process that was continuously refined as themes began to emerge. Qualitative research evaluation criteria developed by Lincoln and Guba (1985), which includes evaluation of data as well as the research process, together with criteria by Strauss and Corbin (1998) for empirical grounding, and Miles and Huberman (1994), provided the framework for verification for this study.

To address credibility, the study triangulated the data through the use of multiple data sources (i.e., participant interviews, excerpts from sport-related websites). Peer debriefing, a process where the researcher exposes him/herself to a colleague “for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer’s mind” (Lincoln and Guba, 1985, p. 308), and member checks, in which participants are asked to corroborate findings were also utilized. Transferability can be addressed by replicating this research with other groups of fans (e.g., low to moderately loyal fans, fans from other countries, other industries – entertainment, politics, corporate) to determine the applicability to other types of fans. Lincoln and Guba (1985) suggest using an inquiry audit, examining the *process* and the *product* (e.g., the data, findings, interpretations, recommendations) to assess dependability of a study. In this study, the researcher engaged an expert in performing qualitative research, to perform an inquiry audit. Confirmability was addressed by making the personal biases and values of the researcher explicit through a bracketing interview conducted by an experienced researcher. Additional measures to ensure freedom from researcher bias included cross-checking of participants’ stories, critical self-reflection of the researcher’s perceptions, review of memos and logs, and use of other qualitative researchers for concurrent data analysis and content

verification. In order to satisfy Utilization or Application, findings from this study will be published and disseminated in appropriate journals as well as presented at pertinent conferences.

### The Participants

All fourteen participants described themselves as “highly committed/avid” sports fans. Overall, nine participants rated themselves as a “5” on a scale of 1 to 5 (1 = mere observer; 5 = highly committed/avid fan). The remaining five participants rated themselves as a “4.” Of the nine male participants, six designated themselves as an “avid” sports fan. Three of the five females designated themselves as an “avid” sports fan. Additionally, with regard to the secondary source of data (website excerpts), it was presumed that individuals who had taken the time to draft a reply or vote on certain sport-related topics, would most likely designate themselves as a “4” or “5” on the sport fan scale. Thus, this analysis is based upon data collected from fans that feel an extraordinary amount of devotion and commitment toward a sport, team, and/or athlete. The age of the participants ranged from 24 to over 56 years of age. All but one participant was Caucasian. All of the participants had either some college, were college graduates, or had graduate degrees. Although all participants were currently residing in the same mid-western city in which they were interviewed, most were born, raised, or spent time in other locations around the United States. Therefore, each participant brought with them distinct backgrounds, experiences, and interests with regard to becoming and being a sport fan.

## FINDINGS

### A Sport Fan

A common theme emerged among all the participants ... being a sports fan brought enjoyment and included spending time either going to, or reading or hearing about, sport-related events. In other words, a certain level of involvement was required to be considered a sport fan. Consequently, a sports fan was described as being enthusiastic and willing to expend time and effort to follow a sport, team, and/or athlete. Each participant brought his/her own ideas, beliefs, and experiences with regard to being a sport fan. For instance, several participants had been involved, either leisurely or competitively, in the sport for which they were a fan.

### Becoming a Sport Fan

Enjoyment of sport is thought to begin early in life (Coakley and Donnelly, 1999). Sport socialization has been examined by relatively few researchers (e.g., (McPherson, 1976; Smith et al., 1981), however, the results tend to illustrate a rather common theme; family and peer influences are central to becoming a sport fan. Research by Wann, Tucker, and Schrader (1996) indicated the most common reason for an individual to become a fan was that his/her parents were supporters of a particular team. Talent/characteristics of the athletes and geography (i.e., following the local team) were the second and third greatest influence, respectively.

The motivation behind becoming a sport fan at an early age was fairly similar for all the study participants. Most of the participants relayed stories about how parents and/or siblings, and even grandparents played a part in becoming a sport fan, either by introducing them to the sport as a participant and/or as a spectator. Additionally, several participants discussed geographical constraints/influences. Many young people are drawn to the local team because they have access to these events and most of their friends are also fans of the local team. Furthermore, if a child moves into a neighborhood, becoming a fan of the local team gives

him/her the ability to make new friends quickly. With the advancement of technology (e.g., transportation, satellite, cable television and the Internet), fans are now able to experience events concerning their favorite teams or athletes, regardless of how far they live from the city that a team calls home. Fans can not only retain an allegiance to a team if the fan moves, but also develop and maintain an allegiance to a team if the team moves. For this reason, fans are not as likely to support a team solely on the basis of a shared geographical connection. As the literature suggests, and as was demonstrated in this study, geographical location and family influence were found to be significant factors for a young person becoming a sport fan.

### The Role of Significant Personal Affiliation

Wann, Tucker, and Schrader (1996) asked individuals to list why they became, remained, and discontinued being a sport fan. The results showed a very small percentage of people mentioned the importance of a significant personal affiliation (e.g., “the team representing a school I now, have or hope to attend,” “I know, have met with, and/or am friends with the athletes”). However, the majority of participants in this study mentioned following a team or athlete because of some type and level of significant personal affiliation to that sport entity.

Significant personal affiliation with a sport entity has the ability to not only influence whether an individual becomes a sport fan, but also impact the strength of the attachment and the fan’s subsequent behaviors. A sport fan can have a significant personal affiliation on a number of levels. For instance, a sport fan could have a connection with a team because they either played for or were somehow related to the team (e.g., went to the school or worked for the university). One of the study participants, “Bob” received his undergraduate degree from UCLA and his Masters Degree from The University of Notre Dame. Although he would receive gifts

from friends that contained other schools' logos, he would buy only licensed collegiate products that contained his schools' logos. Additionally, a sport fan can feel a sense of connection with athletes or coaches because they know these individuals, to some degree, on a personal level. "Chris's" attachment to a certain athlete was due to knowing that athlete personally and developing a relationship with him (e.g., grew up with him and coached him) and hence followed the teams for which this athlete played.

Some researchers suggest that this type of affiliation can be encompassed within the concept of team identification (e.g., Wann et al., 1996). However, the results of this study suggests significant personal affiliation, by itself, has a stronger influence on becoming and being a fan than is currently being considered in the literature. This study does not discount the impact of team identification in the process of becoming and being a fan. In fact, this research supports the research conducted by these scholars. However, the results of this research suggest that there may be additional factors, including significant personal affiliation, that are involved in the process of becoming and being a sport fan.

## **IMPLICATIONS**

Sloan (1979) discussed how "bonding" influenced some fans, typically female fans, to prefer certain sports because they felt they knew the athletes better as those sports allowed "access" to the athletes. For example, female sport fans typically preferred sports where the athletes' faces could be seen (e.g., baseball versus football or hockey). Obviously, safety standards, rules, and uniforms are not going to be altered to accommodate for this; however, the implication here is that if a fan feels a significant personal affiliation to, rather than simply being identified with, an athlete, he/she is likely to interpret their fanship differently than a sport fan



that feels no direct connection to the athlete. Therefore, it is important for members of the sporting community to attempt to build this significant personal affiliation with its fans. This can be accomplished by a team or athlete engaging in a number of activities (e.g., autograph sessions, community involvement). These types of activities might not only encourage increased levels of significant personal affiliation, but also assure a positive interpretation when a fan experiences this type of off-the-field event.

## FUTURE RESEARCH

The current study provides a foundation for understanding the factors involved in becoming and remaining a sport fan. Understanding these interpretations requires working with sport fans as they continue to evolve as a sport fan. This study's findings could be tested within entirely different contexts. For example, there are many other industries for which individuals become fans, either for entertainment, financial, or consumption purposes (e.g., movie stars, musicians, corporate executives, or politicians). Additionally, a research program can be fueled by questions that emerged from this study, such as how significant personal affiliation to a team/athlete influences a fan's experience or perception of on- and off-the field events. The methods utilized to validate the results and expand this research study should include, but not be limited to (1) surveys of fans' experiences, (2) experiments designed to further examine the relationship between significant personal affiliation and becoming a fan, and (3) longitudinal studies designed to more closely examine the process of becoming and remaining a sport fan.

## CONCLUSION

This study demonstrated that several factors play a role in an individual becoming and remaining a sport fan; geographical location, family influence, team identification, and significant personal affiliation. The first three factors were not only found to be significant in this study, but research also indicates their importance. However, researchers have not assigned the level of significance the fourth factor deserves. The more we know about why individuals become and continue their fanship, the more likely we are to augment feelings of loyalty and the behaviors resulting from such loyalties (i.e., watching games, buying sport-related paraphernalia), attract new fans, enhance the equity behind sport “brands,” recover the positive feelings that have been eroding toward many professional sports (i.e., Major League Baseball and the National Basketball Association), and possibly enhance the entertainment value that is vital within the sporting industry.

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How Fans Consume Sports - Passion, Passport or the Means to an End?  
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## **Abstract**

Despite growing interest in the application of relationship theory to consumers and their brands (Aggarwal, 2004; Fournier, 1998), the brand relationship between the sports fan and their favorite sports team has remained relatively unexplored. We examine the issue of whether a sports team can serve as an active relationship partner for sports fans of a major league hockey team. We interviewed sports fans who were identified by traditional self-report measures as equally loyal and found that the loyalty measure cannot capture the variety of relationships that loyal sports fans form with their team. The four types of relationships that emerged are classified as *Passionate identifiers*, *Community belongers*, *Sensation seekers*, and *Opportunity grabbers*. Although the respondents were all loyal fans, the different relationship types influenced their behavior towards the sport team in various aspects such as brand commitment (affective, normative and continuance), emotional attachment, long-term and short-term behavioral tendencies, and reactions to potential brand transgressions.

# HOW FANS CONSUME SPORTS – PASSION, BELONGING OR THE MEANS TO AN END?

## INTRODUCTION

Whether measured from the perspective of level of participation, degree of interest or economic impact, sports have increasingly become an important part of our society. Sports marketers are becoming more interested in understanding what psychological differences if any, exist among sport fans, and particularly what motivates an individual to become loyal to a particular team. Previous research has examined sports fans' loyalty and personal connection to a team (e.g., Dixon 2001) and the psychological attachment between the sports fans and their favorite sports team (e.g., Mahony, Madrigal & Howard 2000; Wann & Pierce 2003). The work presented in this paper provides strong evidence in support of the idea that the loyalty of the sport spectator can be best understood using the framework of relationship theory. We show that the amount of self-brand connection between sports fans and their favorite sports team affects the type of relationship formed and these relationship types are better predictors of attitudes and behavior than current instruments developed to measure loyalty.

Particularly in highly competitive markets, organizations place a great deal of effort on developing brand loyalty and academic researchers have studied the mechanisms associated with loyalty (Fournier & Yao 1997). Previous research has tended to focus on the relationship between satisfaction and loyalty, and it is only recently that the idea that consumers form relationships with their brands been empirically examined (e.g., Aggarwal 2004; Fournier 1998). Drawing on the work of Fournier (1998), Aggarwal (2004) distinguishes two types of relationships that consumers form with brands - exchange and communal (e.g., Clark & Mills

1993). In exchange relationships, the primary motivation for interacting with others is to get something from them, whereas in communal relationships a genuine concern for the well being of others motivates interactions. Relational model theory proposes four types of social relationships – communal sharing (more about community), authority ranking (power relationship), equality matching (all are equal) and market pricing (similar to commercial transactions) and postulates that all cultures use one of these four relationship types to organize their social lives (Fiske, 1992).

Related research examining interpersonal relationships in social psychology have proposed that individuals include aspects of close others as part of his or her self (e.g., Aron and Aron 1997).

In marketing, the notion that people have connections to brands to create and communicate their self-concept is also widely accepted (e.g., Escalas 2004; Escalas & Bettman 2003; Fournier 1998). People form attachments with brands to achieve various self-related goals such as connecting with the past, fitting in with peers, expressing individuality or symbolizing personal accomplishments (Escalas 2004).

Despite growing interest in applying interpersonal relationship theory to brands, there is some question as to whether a brand can serve as an active relationship partner (Bengtsson 2003). We chose to examine consumer-brand relationships with a sports team since for many people watching sports is a passionate and intense experience that can dominate all thoughts and feelings, at least momentarily (e.g., the passion shown by British soccer fans). The types of relationships fans form with their favorite sports team may be more similar to interpersonal relationships and therefore provide greater insight into consumer-brand relationship theory. Although previous research has identified various levels of sport fan's loyalty, we are not aware of any research which examines the link between self-brand and the type of relationships formed



by fans and their favorite sports team. In this paper we examine different relationship types of loyal sports fans and the impact of these relationships on two-way perceptions (how the fan views the brand and how the brand views the fan), perceived brand personality and responses to transgressions (violations of trust). We chose to examine loyal fans of the Toronto Maple Leafs, since there is a wide interest and passion for this particular NHL sports team. For example, the Leafs traditionally lead the NHL in capacity crowds, averaging a 101.8% capacity rate (Buffery 2001) despite the fact that the team has not won the Stanley Cup since 1967!

## RESEARCH METHODS

### Participant Selection and Study Design

Loyal consumers were identified two ways: 1) only individuals who were self-reported as loyal fans were contacted; and 2) the self-reported participants were further screened on three commonly used loyalty dimensions: knowledge about the team/sport; attitudes toward the team, and behavioral measures such as hours watching the games/money spent (Lee & Zeiss 1980).

To achieve a complete understanding of the types of relationships sports fans form with their favorite team requires examining the feelings, emotions and experiences of these consumers.

We adopted a qualitative approach in order to obtain depth and breadth of information. Depth interviews are particularly effective in providing a clear understanding of respondent's beliefs and experiences in their social and cultural context (Berg 1998).

According to Zaltman (1997), most thought is image-based and these images are often visual. Furthermore, since 80% of human communication is nonverbal (Weiser 1988) we decided to use an approach that enables consumers to tap into thoughts and feelings that occur below awareness

and that may be represented in non-verbal form. Researchers have begun to use participant selected photographs and images as a form of collecting data (e.g., Zaltman 1997; Holbrook & Kuwahara 1998). Our participants were instructed to collect a total of between 8 and 10 pictures or images representative of their thoughts and feelings about the Toronto Maple Leafs and what the Toronto Maple Leafs think about them. During one-hour long interviews the participants were asked to explain why they chose each picture. We used semi-structured interviews that allowed the interviewers to explore specific topics while at the same time allowing respondents flexibility in answering questions.

#### Analysis of the Depth Interviews

Upon completion of the interview process, the tapes were transcribed in their entirety. Comments regarding the general tone of the interview (the respondent's attitude) and any other observations, such as interruptions were noted. A combined inductive/deductive approach was used to analyze the data. The first stage of the analysis involved a review of the transcripts to identify and code meaningful concepts or themes for each interview (Berg 1998). In the next stage of the analysis, the deductive approach was used to develop patterns of interrelationships between themes.

## FINDINGS AND DISCUSSION

The participants' images and verbatim remarks were used to identify the self-brand connection between the respondent and the sports team. We found that different relationship types were influenced by similarity between the consumer and brand in addition to the directional influence of the relationship – whether the fan's relationship with the team is best described as hierarchical

or horizontal. Examples of a hierarchical relationship are boss-employee and team leader-team member, whereas in a horizontal relationship people treat each other as equivalents. Based on an analysis of self-brand link on the dimensions of hierarchical/horizontal and overlap of closeness we classified respondents into four distinct relationship types (see table 1). While the relationships of “passionate identifiers” and “community belongers” are more communal in nature, and “sensation seekers” and “opportunity grabbers” are best categorized as exchange-oriented, important attitudinal and behavioral differences were noted. Each of the relationship types will be discussed in terms of self-brand connectedness and the personal experiences that influenced the relationship.

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Insert Table 1 here  
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#### Relationship Types

*Passionate Identifiers (communal/horizontal).* Participants whose relationship is described as passionate identifiers consider themselves very closely attached to the Leafs and regard the team as one of their close friends. The pictures and images these participants brought to the interview often reflected childhood memories and traditions. These respondents not only experience happiness when the team wins, but they also experience sadness when “we” lose. These fans consider being a Leafs fan a huge part of their identity. For instance, one participant explained: “this picture reminds me of playing hockey with my dad, my friends. It reminds me of my childhood – the fun, family, the Leafs have always been a part of growing up, a part of my life.”

*Community belongs (communal-hierarchical/horizontal).* Two of our respondents who immigrated to Canada when they were teenagers explained that although Toronto is a very diverse city, the one thing that everyone has in common is a love for the Leafs. For these respondents their relationship with the Leafs is analogous to a passport to Canadian culture. From the interviews it was apparent that being a Leafs fan is like a credential that they use to help them assimilate into their new home country. For example, the most representative picture of the Leafs for one respondent was a picture of the Canadian flag because she felt that the Leafs are really a part of Canadian culture, particularly for new Canadians moving to Toronto. A second respondent compared the Leafs' organization to a church explaining that "... the Leafs give us a sense of community, spirituality, oneness. They can answer our prayers, we can depend on them to give us what we need."

*"Sensation seekers" (exchange/communal-hierarchical).* The respondents identified as sensation seekers discussed the Leafs in terms of the utility and pleasure gained by being a fan of the team which was closely tied to the various storylines, competition between clubs and the on-ice battles that maximize the entertainment value of the team and allows these respondents to fantasize being transported to this world. Whereas the passionate identifiers experience pleasure and pain when the team wins and loses, sensation seekers only allow the outcome of the game to affect them when the team wins.

"the idea is that when the Leafs are winning I have more fun watching them, whereas if they're losing, it kind of makes me mad. I don't enjoy watching them. So I try to maximize my enjoyment by watching them when they're winning."

*“Opportunity grabbers” (exchange-hierarchical).* Respondents identified as opportunity grabbers form a relationship with the team because of its ability to aid them in socializing and forming relationships with important others. For example, according to one respondent “when I came to Canada it (hockey) was a big craze, so I followed it. I live in residence and needed to fit in with others.” Although they look forward to the games, the respondents appear to feel no emotional attachment to the team. Their relationship with the Leafs is best characterized as driven by situational influences – often the need to fit in. One respondent indicated that he followed the team stats not because he wanted to know the scores, but because he wanted something to talk about the next day with others. When asked to describe his relationship with the Leafs by imagining the team was a real person, one respondent replied:

“He would be my friend and I’d watch hockey with him and go for a drink afterwards – but I guess outside of that I wouldn’t really bother having a strong relationship with him.”

We found that different relationship types had different attitudinal and behavioral consequences, even when they were affected by the same antecedent conditions. Due to space limitations, we will only discuss a few examples.

#### Impact of Relationship Type on Consumer Reactions towards the Brand

*Perceived Brand Personality.* Brand personality is defined as “the set of human characteristics associated with a brand” (Aaker 1997:347). Research has shown that both self-concept and situational influences affect consumers’ preferred brand personality – with consumers preferring brands with personalities similar to their own (Aaker 1999). However, the literature tends to regard brand personality as generally accepted knowledge shared by all

consumers (e.g. Hallmark – “Sincere”; Wrangler – “Rugged”). In contrast, our analysis shows that one brand can have different personalities depending on the consumer’s relationship with the brand since the relationship serves as a lens through which consumers evaluate the brand. A different evaluative focus will lead consumers to attend to different attributes of the brand, resulting in different perceived brand personalities.

Those respondents identified as passionate identifiers emphasized how the team was “very much a part of us” and described the Leaf’s brand personality as caring, focused, and hard-working with a lot of heart. These respondents tended to talk about the team with a lot of emotion and described a person that they would like to have a relationship with. In contrast, when discussing the team’s personality, sensation seekers tended to focus on the physical attractiveness of the team, the skill set of the players and the importance of a winning record. For example one respondent brought a picture of comic book superheroes to the session and compared the team to fantasy characters because he believes the players have supernatural-like powers. According to another respondent:

“I think they’re really tough, and gritty. They can take a lot of punches. They’re not going to let other players take liberties, take free shots, injure any of their skilled players. So toughness is important for winning.”

Individuals labeled as community belongers described the team’s personality as more in line with their perception of the Canadian people and other important cultural associations. These respondents believe the club represents the spirit and strength of Toronto and Canada. One respondent when asked to describe the personality of the Leafs replied:

“... he is warm and friendly – not aggressive because when I think of Canadian people they’re friendly and welcoming.”

*What the Brand thinks of me.* It has been suggested that to fully understand the concept of a consumer’s relationship with a brand requires analysis of both the consumer’s attitudes and behaviors toward the brand and the brand’s attitudes and behaviors toward the consumer (Blackston 2000). Therefore, we asked respondents to collect images of what the team thinks about them.

For the passionate identifiers, the images they chose reflected community, family – a sense that the team really cares about their fans. The pictures and stories centered on the individual team members involvement in the community and the belief that their involvement was not simply for publicity but because of the strong connection they feel towards the city and the fans. While sensation seekers also feel personally connected to the Leafs, their relationship is best characterized as a partnership. One fan described the team’s feelings about the fans as a type of marriage where the team married for money and not love. He explained, “in this picture (picture of a newly married couple), they are the wife, maybe the wife that married for money.”

The opportunity grabbers on the other hand believe that team did not really feel any connection with their fans. When asked to discuss the picture or image that best represented what the team thought of them, one respondent presented a picture of a shadow and another respondent chose a picture of a big fish surrounded by hundreds of small fish. According to both respondents, they felt that the team did not think of their fans as individuals – “the distinction between fans goes away in the shadows – they don’t see age, gender, nothing.”

## Brand Transgressions

Relationship strength has been frequently studied and has been found to be tied to how individuals deal with violations or negative threats to the relationship (Aaker, Fournier & Brasel 2004). It has been shown that transgressions damage consumer relationships for brands with sincere personalities because intimacy levels with the brand are violated (Aaker et al. 2004). Other research suggests that consumers who form strong links to a brand may be more brand loyal and less forgiving of marketing blunders (Escalas & Bettman 2003). We next discuss the influence of two types of transgressions identified by our respondents during the interviews: the 2004/2005 NHL hockey strike (the entire season was cancelled) and the defection or trading of star players to other teams.

Passionate identifiers were the most affected by the hockey strike and player defections – these transgressions led to a sense of betrayal and bitterness. Although, these respondents felt extremely hurt by transgressions, at the same time they were deeply conflicted by these feelings, such that the feelings of betrayal were not expected to be long lasting. For example, one respondent explained:

“I was very, very bitter about the strike but then I watched a game with the baby Leafs (farm club) and I’m like, I miss the game and want them back.”

The sensation seekers suggested that they did not take the strike personally and to cope with the strike they turned their attention to other sports. Interestingly though, one respondent felt the need to express his displeasure towards the Leafs because of the strike, he explained: “you guys have slapped the hand that feeds you and you are going to have to win me back.” In



contrast, while the opportunity grabbers were disappointed that they were unable to share their experiences with friends because of the strike, they were not upset at all about the NHL closing down for the season. Similarly, they indicated a lack of concern if star players left the team because “I’m more enthusiastic about new players than sad about star players leaving.”

## CONCLUSIONS AND FUTURE RESEARCH

This research examined brand relationship theory from the perspective of the sports fan. The key findings reported here are that not only do loyal sports fans form various relationships with their favorite sports teams, but also that the type of relationship formed is a better predictor of attitudes and behaviors than traditionally used measures of loyalty. We showed that the communal-exchange dichotomy does not fully capture the types of relationships loyal fans form with their favorite sports team. Similarly, our relationship types did not map perfectly onto those predicted by relational theory (Fiske 1992). More importantly, we found important attitudinal and behavioral differences between our different fan types.

Regarding the concept of brand personality, although the core personality is shared across loyal fans, the consumer-brand relationship was shown to moderate the overall brand image by changing the consumer’s evaluative focus. Interestingly, although differences in brand personality did not appear to influence self-reported measures of loyalty, it would be interesting to study whether a lack of congruency between the brand personality communicated via various marketing communications and the different relationship types will affect brand associations. We also found that different types of personal relationships with the team influenced how consumers viewed the interpersonal nature of the relationship, with passionate identifiers far

more likely than opportunity grabbers to consider the relationship truly reciprocal. These different relationship types were found to influence consumer reactions to violations of trust and have important implications in terms of how the organization rebuilds broken trust. For example, to appease the passionate identifiers, the organization might promote the idea that “we are all in it together”, whereas community belongers would respond more positively to an appeal that focused on patriotism. Future research could empirically test this hypothesis.

Although the relationship of community belongers and the team was primarily driven by cultural considerations, one observation we noted was that almost all respondents had a strong association between patriotism and being a Leafs’ fan. Particularly since September 11<sup>th</sup>, North American consumers have stronger associations between shopping and being patriotic. More research is needed to explore what factors influence successful relationships between a consumer and a brand that attempts to appeal to patriotism.

Although previous consumer research has identified the amount of overlap between self and other as an important predictor of close relationships, to our knowledge this is the first study to identify the importance of the directional influence of the self-brand connection on the type of relationship formed and subsequent effects on attitudes and behavior. The perspective that close relationships can vary on both a hierarchical and horizontal dimension provides insight into our respondents’ brand experiences. However, given the exploratory nature of this research, much more research is needed before we have a complete understanding of consumers’ brand relationships.

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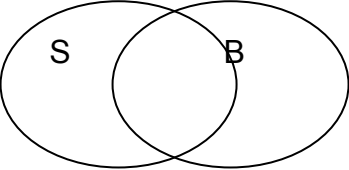
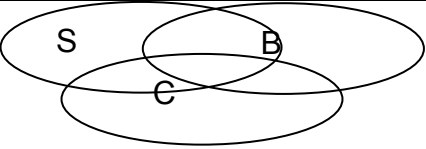
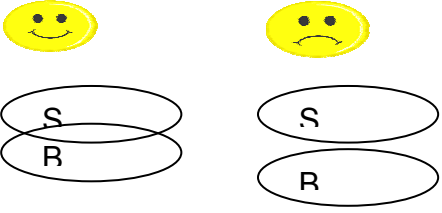
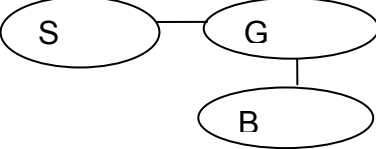
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Table 1

*Relationship Type by Self-brand Connection*

Relationship Type	Self-brand connection
Passionate identifier	
Community believer	
Sensation seeker	
Opportunity grabber	

\*S=self, B=Brand, C=Community, G=Important reference group

The Match-up Hypothesis and Sports Marketing: The Role of Athlete  
Congruence in Sport and Non-Sport Advertisements

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HYPOTHESIS AND SPORTS MARKETING: THE ROLE OF ATHLETE  
CONGRUENCE IN SPORT AND NON-SPORT ADVERTISEMENTS

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## Abstract

Given the high cost to use athletes as product endorsers, it is critical for researchers and practitioners to better understand why celebrity endorsers are effective and under what conditions and situations their effectiveness will be maximized. One stream of research that can help address these issues is the match-up hypothesis literature. The match-up hypothesis predicts that more positive evaluations of the endorser, the product and the advertisement will result if the image of the spokesperson is congruent with the image of the product (Kahle and Homer 1985; Till and Busler 2000). Our research extends this literature by using the results from the match-up hypothesis literature as a guide to predict and empirically test the effectiveness of athlete and non-athlete endorsers in ads for products related and unrelated to sports. The results of this research suggest that an athlete is more effective than a non-athlete when endorsing a sport related product, but for a non-sport product, there is no difference in the impact of an athlete versus a non-athlete.



THE MATCH-UP HYPOTHESIS AND SPORTS MARKETING:  
THE ROLE OF ATHLETE CONGRUENCE IN SPORT AND  
NON-SPORT ADVERTISEMENTS

Consumers today are bombarded with ads from a variety of different sources, making it difficult for companies to gain the attention of their target consumers. An advertising strategy companies have used to cut through this clutter is depicting celebrity endorsers in ads. Celebrity endorsements represent over 20% of all advertisements (Agrawal and Kamakura 1995; Stephens and Rice 1998) and are thought to be effective because they are well known to a large number of consumers and have well defined images (McCracken 1989). Although many types of celebrity endorsers exist, athletes are among the most popular celebrity endorsers (Sports Business Journal 2002). It is often quite expensive, however, to use athletes in ads, and many top athletes are demanding large contracts worth extremely large sums of money to allow companies to use their name and image in ads (Agrawal and Kamakura 1995). For example, Nike is paying Tiger Woods \$105 million over five years to endorse their brand, and Buick is paying Mr. Woods \$40 million over five years (DiCarlo 2005).

Given the high cost to use athletes as product endorsers, it is critical for researchers and practitioners to better understand why celebrity endorsers are effective and under what conditions and situations their effectiveness will be maximized. One stream of research that can help address these issues is the match-up hypothesis literature. The match-up hypothesis predicts that more positive evaluations of the endorser, the product, and the advertisement will result if the image of the spokesperson is congruent with the image of the product (Kahle and Homer 1985; Till and Busler 2000). Our research extends this literature by using the results from the

match-up hypothesis literature as a guide to predict and empirically test the effectiveness of athlete and non-athlete endorsers in ads for products related and unrelated to sports.

## **LITERATURE REVIEW**

McCracken (1989) defined a celebrity endorser as “any individual who enjoys public recognition and who uses this recognition on behalf of a consumer good by appearing with it in an advertisement” (p. 310). Many types of celebrity endorsers exist, including actors, athletes, business people, entertainers, military leaders, models, politicians, and singers (Friedman and Friedman 1979; Hsu and McDonald 2002; McCracken 1989). According to McCracken (1989), the image of a celebrity becomes transferred to the product when the celebrity endorses the product. The advertisement serves as a conduit, transferring the multidimensional image of the celebrity (or the cultural meaning embodied by the celebrity) to the product, and subsequently to the consumer (McCracken 1989).

The results of previous research indicate that celebrity endorsers in advertisements can gain and hold consumer attention (Atkin and Block 1983), enhance message recall (Friedman and Friedman 1979), and increase believability and likeability of the ads (Atkin and Block 1983; Kamins, Brand, Hoeke, and Moe 1989). Furthermore, celebrity endorsers can increase positive attitudes toward the brand and the product (Atkin and Block 1983; Friedman and Friedman 1979; Kamins, Brand, Hoeke, and Moe 1989; Petty, Cacioppo and Shuman 1983) and can increase the likelihood that the product is purchased (Friedman and Friedman 1979; Kamins 1989). The celebrities themselves may also benefit from inclusion in the ads (Atkin and Block 1983).

Celebrities, however, may not be effective in all situations. According to the match-up hypothesis, an endorser in an advertisement will not have a positive effect on consumers' product and ad evaluations unless the endorser image "matches up" with the product image (Kahle & Homer, 1985; Kamins, 1990; Parekh & Kanekar, 1994). For example, Kahle and Homer (1985) examined the match-up effect in the context of spokesperson physical attractiveness by including attractive and unattractive celebrities in razor print ads. Their results indicate that the ad with the attractive celebrities were more effective than the ad with the unattractive celebrities. They explained these results in the context of the match-up hypothesis. The product in the ad (razors) could be viewed as one that is related to attractiveness, and as such was congruent with the attractive endorser, leading to the more positive evaluations. Expanding on this research, Kamins (1990) examined the impact of attractive and unattractive celebrity endorsers for products related to or unrelated to attractiveness. The results of this research indicate that for the attractiveness-related product, the ad with the attractive celebrity elicited more positive evaluations of the endorser and the advertisement. In the ad with the product unrelated to attractiveness, there was no impact of the celebrity's attractiveness.

Lynch and Schuler (1994) found results similar to those found by Kamins (1990) for spokesperson muscularity. They controlled for attractiveness by using the same model in the ads, but varied the actual muscularity of the model in products related to or unrelated to muscularity. In the ads for products that were related to muscularity, subjects evaluated the model as more knowledgeable when he was more muscular. In the ads for products unrelated to muscularity, there was no difference in evaluations of the spokesperson across the different levels of spokesperson muscularity.

Few studies have examined the impact of athlete endorsers in the context of the match-up effect. Athletes provide an excellent opportunity to examine match-up effects because they match up well with products that are related to athletic activities. Additionally, from a practical standpoint, athletes currently appear in numerous ads as product endorsers (for products related to and unrelated to athletics). While Boyd and Shank (2004) compared tri-athletes endorsing cross trainer shoes with Olympic athletes endorsing milk and found that the tri-athletes were evaluated as having higher expertise than the Olympic athletes (presumably because they matched-up better with the product in the ad), their use of different athletes (triathletes versus Olympic athletes) and different product categories (cross-trainer shoes versus milk) was not a direct test of the match-up effect. Based on the literature on the match-up hypothesis reviewed above, and expanding on the results of the Boyd and Shank (2004) study, the following hypotheses are offered:

- H1a:** For a product related to sports, attitudes toward the endorser, the advertisement and the brand, and purchase intent will be more positive if the endorser is identified as an athlete compared to if the endorser is not identified as an athlete.
- H1b:** For a product unrelated to sports, attitudes toward the endorser, the advertisement and the brand, and purchase intent will be more positive if the endorser is not identified as an athlete, compared to if the endorser is identified as an athlete.

## METHODOLOGY

A 2 (product related or unrelated to sports) X 2 (endorser identified as athlete or not) between subjects design was used to test the hypotheses. Subjects were randomly assigned to one of the four experimental conditions and were provided with a three page self-administered questionnaire. They were advised that that they would view an advertisement for an upcoming ad campaign and would be asked for their impressions about the ad. Based on pre-tests, the brands used in the ads were for a tee shirt manufactured by The Gap (unrelated to sport) or Champion (related to sport); the same anonymous model was wearing the tee shirt in the ads. (The tee shirt was identical in all four ads.) In one condition, the anonymous model was given a fictional name, “Gregg Sanders,” and was falsely identified as a “Wide Receiver for the Two Time NFL Champion New England Patriots.” The model was not identified in the other condition. A projected image of the ad (created by a professional graphic designer) in the condition to which they were assigned was shown to the subjects. While viewing the full screen advertisement, subjects completed the questionnaire containing items measuring the dependent variables and demographic characteristics. The total sample size was 185, consisting of 37.6% females (62.4% male) with a mean age of 24.4 years.

Attitudes toward the endorser, attitudes toward the advertisement, attitudes toward the brand, and purchase intent served as the dependent variables measured in this experiment. Attitudes toward the endorser included *Liking*, *Attractiveness*, *Perceived Trust*, *Perceived Expertise*, and *Accomplishment*. *Liking* of the celebrity was measured by a one-item scale (e.g., Kahle & Homer, 1985; Kamins, 1990; Patzer, 1983). *Attractiveness*, *Perceived Trust* and *Perceived Expertise* were measured using five-item scales developed and tested by Ohanian (1990). *Accomplishment* was measured with a three-item scale developed for this study. *Attitude*

*toward the brand* and *Attitude toward the ad* were both four-item scales from Mitchell and Olsen (1981). A three-item scale from Till and Busler (2000) was used to measure *Purchase Intent*. For all of the items in the above measures, subjects indicated their responses on seven-point semantic differential scales.

Averages of the item responses for each of the above multi-item scales were constructed and Cronbach's alpha scores for these multi-item factors were: *Attractiveness* (.73), *Perceived Trust* (.76), *Perceived Expertise* (.87), *Accomplishment* (.80), *Attitude toward the brand* (.85), *Attitude toward the ad* (.84), and *Purchase Intent* (.95) and were deemed sufficiently high based on the standard of .70 established by Nunnally (1978).

## RESULTS & DISCUSSION

Univariate tests were conducted to test the hypotheses and the results of these analyses are presented in Table 1. Main effects of the brand were found for *Accomplishment* and *Attitude toward the brand*. Main effects of the endorser were found for *Perceived Expertise*. The main interest of the study, however, was the presence of any interactive effects between the type of product (related to sports or not) and the type of endorser (identified as an athlete or not). The hypotheses would be supported if attitudes and behavioral intent were most favorable when the model identified as an athlete was paired with the sport-related brand (H1a), and when the model not identified as an athlete was paired with the non-sport brand (H1b). The univariate tests did reveal a significant interaction between the type of product and the type of endorser for all of the dependent measures except *Liking* and *Attractiveness* (see Table 1). Follow-up analyses were conducted to examine the simple effects. Regarding the sport-related product, the ads with the athlete elicited more favorable responses than the ads with the non-athlete for *Accomplishment*

( $p < .01$ ), *Perceived Trust* ( $p < .05$ ), *Perceived Expertise* ( $p < .001$ ), and *Purchase Intent* ( $p < .05$ ).

These results support hypothesis 1a. Regarding the non-sport product, a comparison of the ads depicting the athlete with the ads depicting the non-athlete did not reveal any significant differences for any of the dependent variables ( $p > .05$ ). These results do not support hypothesis 1b. (Please see Figures 1-4.)

The findings that an athlete is more effective than a non-athlete when endorsing a sport related product, but for a non-sport product, there is no difference in the impact of an athlete versus a non-athlete has major implications for companies selling non-sport brands currently paying huge sums of money to famous athletes to serve as endorsers. For example, earlier in the manuscript it was reported that Nike extended a contract with Tiger Woods for \$105 million, and Buick extended their contract with Tiger for \$40 million. The results of this research support Nike's strategy of paying Tiger (an athlete), but suggest that Buick may want to reconsider their selection of an athlete celebrity endorser.

Interestingly, the results reported here also suggest that it may be more cost-effective to use relatively unknown athletes as endorsers of sport products. The simple act of *identifying* the product endorser as a professional athlete (when in reality he was an unknown model) elicited more favorable responses for the sport-related product. Given the large financial compensation demanded by many athlete endorsers, the added benefit of an athlete "superstar" may not be the best use of advertising resources. Future research could explore this issue.

Some limitations of this study must be noted. First, this research design was limited to only two brands from a single product category. Future studies should test these match-up effects across multiple product categories and should use multiple brands within each category. Furthermore, this study used real brands, and thus pre-existing attitudes toward these brands may

have biased the results. Future researchers may want to use fictional brand names to eliminate this bias. Second, all of the ads used in this study depicted a male athlete and future research should include female athletes in the ads. Females and males could also be shown in the same ad. Finally, this research did not explore the role of moderating circumstances. Future research needs to be conducted examining the effect of individual differences such as involvement with the product.



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None

Appendices

Author Note

None

Table 1

*ANOVA Results*

<b>Variable</b>	<b>Main Effect Product (P)</b>		<b>Main Effect Endorser (E)</b>		<b>Interactive Effects (P x E)</b>	
	<b>F</b>	<b>p</b>	<b>F</b>	<b>p</b>	<b>F</b>	<b>p</b>
Attractiveness	.002	.963	.010	.922	1.388	.240
Liking	1.646	.201	.006	.937	1.723	.191
Accomplishment	5.202	.024*	2.591	.109	6.631	.011*
Perceived trust	.011	.918	.806	.370	4.498	.035*
Perceived expertise	.317	.574	10.419	.001*	8.727	.004*
Attitude toward brand	4.618	.033*	.006	.940	4.373	.038*
Attitude toward ad	.059	.809	.073	.787	4.293	.040*
Purchase intent	.383	.537	1.295	.257	6.177	.014*

\* significant at  $p < .05$

Figure 1  
*Accomplishment*

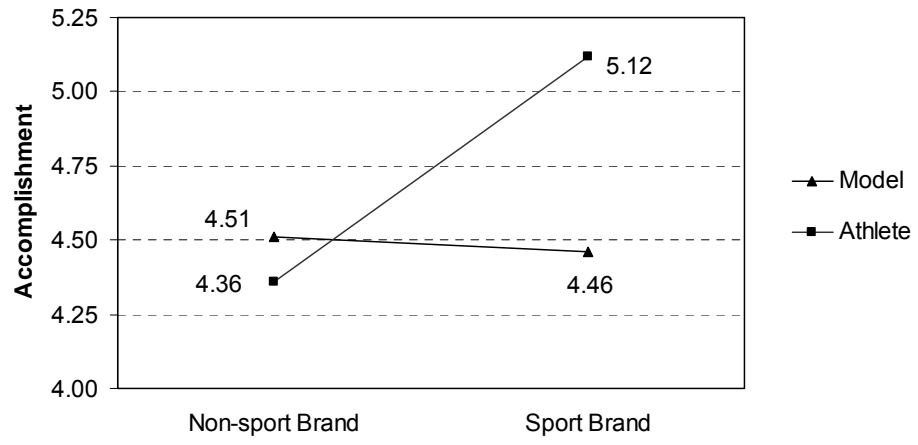


Figure 2  
*Perceived Trust*

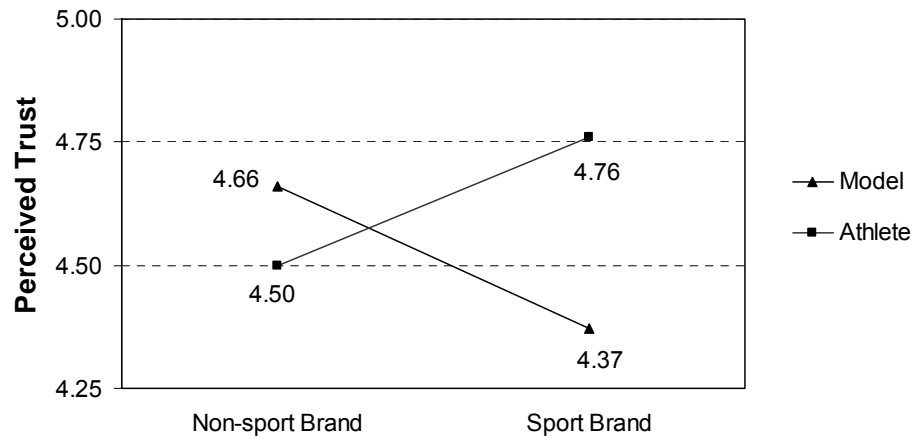


Figure 3  
*Perceived Expertise*

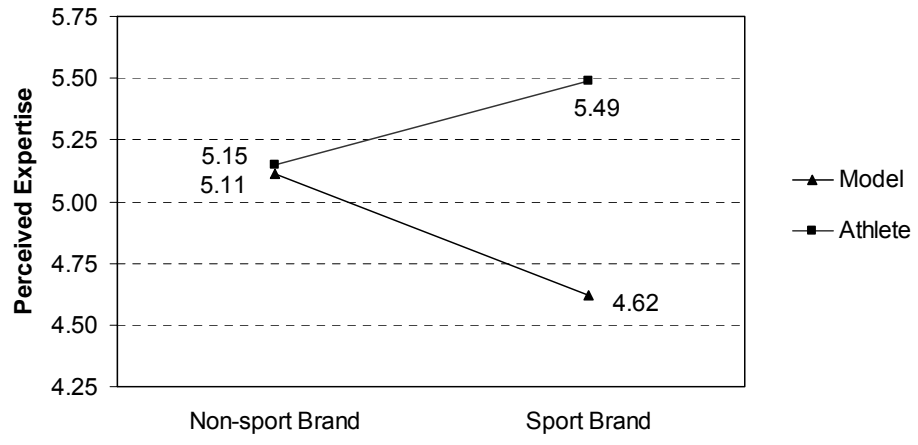
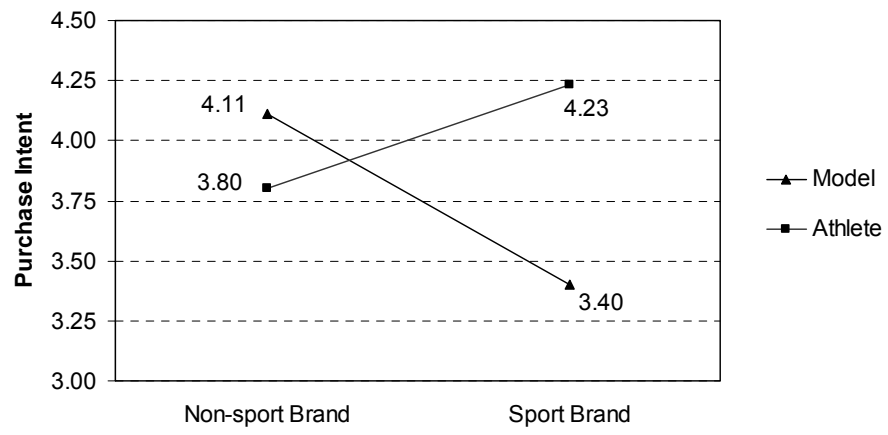




Figure 4  
*Purchase Intent*



Flashing Lights and Bright Colors: The Effects of Situational Information in Gaming Venues on Psychological Responses and Behavior  
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## Abstract

A study (n=484) is reported examining the effects of incremental information and arousal afforded by flashing lights and the use of bright colors tested using video simulations of casino settings. Flashing lights should be avoided in casino design. The incremental anxiety induced by flashing lights appears to exaggerate poor decisions made by gamblers who may be chasing losses by betting longer than planned, spending more money than planned or by engaging in unplanned additional games. Bright colours appear to be more influential, perhaps more expected, and more likely to reduce negative gaming intentions at least for some casino designs. Monotone colours in a gaming setting may seem incongruent and sufficiently psychologically distressing to motivate gambling behaviour that was not planned. Implications for casino design and problem gambler treatment programs are discussed.

# FLASHING LIGHTS AND BRIGHT COLORS: EFFECTS OF SITUATIONAL INFORMATION IN GAMING VENUES ON PSYCHOLOGICAL RESPONSES AND BEHAVIOR

## BACKGROUND

The systematic empirical investigation of environmental effects on gambling has emerged as an important goal for understanding the conditions which contribute to sustained problem gambling (Griffiths & Parke, 2003). Caro (2003) identified the importance of interior space and design as gaming architecture has transformed from functionality to focus on symbolism. He argues that:

“[previously] “gaming venues provided an intricate maze under the low ceiling leading to the separation of the occupant from temporal and spatial markers....space and time were defined by the game itself. More modern designs are tending to integrate interior and exterior spaces....”

to achieve specific business goals. Clearly, designers of gaming venues appreciate the influence of the structural characteristics, but there is an absence of knowledge in the research community as to how the types of venues may impact differentially on the gambling behaviour of gamblers. Griffiths and Parke (2003) have proposed that research frameworks should address the situational characteristics (e.g., sound effects, music, lighting and color) that initiate and sustain gambling behavior. They conjecture that that these physical environmental characteristics merit exploration because “excessive gambling can occur regardless of the gambler’s biological and/or psychological constitution.” The current research aimed to fill this gap by developing discriminating physical and environmental variables that may elicit emotions which differentially influence problem gambling behaviour.

In our preliminary studies (Finlay, Kanetkar, Londerville & Marmurek, 2005) we have developed a macro environment classification scheme in consultation with architects who design

gambling venues. We assessed the validity of each scheme with ratings of the venues *in situ* and ratings of video representations of the venues. We identified two competing approaches to effective casino design. Although well-known in the commercial gambling community, no empirical testing had been conducted on either of the two designs.

#### Playground Design.

The first approach is based on Kranes (1995) who conceptualizes casinos as playgrounds, as places where the activity (playing) should be conducted in an environment that is inviting and energizing, stimulating curiosity and exploration. Kranes proposes that appealing casinos will be related to design elements that are pleasurable “legible” (instantly recognizable), inducing senses of order, freedom, and vitality. He argues that humans seek spaces in which they feel centered and at home; spaces which empower, feel more rewarding, secure, natural and intimate. Humans feel vital in an identifiable environment, thriving on sunlight, warm colours, the presence of accessible green space and moving water. It should be apparent that the “playground design” is compatible with the recent trends in Las Vegas (Caro, 2003).

#### Gaming Design.

Friedman (2000) proposes that the design of a casino is related to functionality. Friedman’s perspective is summarized in what he calls “The Thirteen Winning Design Principles” (Friedman 2000) which include, but are not limited to, the following: gambling equipment should be the dominant decorative feature in a casino, and décor should be used only to highlight and enhance the equipment layout; interior décor that is impressive, imposing or memorable distracts from the gambling equipment; a maze layout of slot machines is better than long, wide, straight passageways and aisles since mazes produce secluded, intimate gambling areas; and low ceilings have little space between the tops of the gambling equipment and the

ceiling, creating a sense of intimacy and a focus on gambling. Those principles are consistent with the traditional Las Vegas casino design (Caro, 2003).

The current study builds on Finlay, et al.(2005) to test the hypothesis that the effects of two specific design variations (use of flashing versus static lighting; use of bright versus monotone colors) vary the amount of information in each of the playground and gaming settings to influence the psychological ratings of each setting and the intention to gamble in excess (beyond planned levels). Two variables have become the focus of our previous gambling setting evaluations. The first is restoration (the extent to which a setting psychologically refreshes an individual who may be faced with an excessive number of competing stimuli leading to high levels of environmental stress), as may be the case in a gambling situation. McKechnie (1977) developed a measure of environmental restoration to gauge the extent to which a venue reduces anxiety. This instrument was administered in the current study to validate further the differential affective impact of the two types of casino macro designs. The second critical dependent measure was the intent to or likelihood of gambling irresponsibly (beyond planned or controllable levels), developed by the current researchers (Finlay et al., 2005).

Our research has consistently demonstrated that the playground model scores higher on restoration induced, but also higher in perceived likelihood of gambling irresponsibly. For the design elements varied in the current research, it was specifically hypothesized that flashing lights and the use of bright colors would increase the need for directed attention, such that restoration would decrease, and arousal and the propensity to gamble irresponsibly would increase for each of the playground and gaming macro-designed casinos.

Research Design and Methodology

The study used a 2 by 2 mixed-factor design. The between-subjects factor was whether required attention in the setting would be higher or lower as a function of the information required to be perceived (higher with flashing lights and bright colors; lower with static lights and monotone colours). When lights were flashing, a high level of information needed to be perceived, versus when lights were static, a low level of information needed to be perceived. Similarly when colors were varied and bright, a high level of information needed to be perceived, versus when colors were monotone, a low level of information needed to be perceived. The within-subjects factor was whether the flashing lights and color manipulations occurred within a playground versus a gaming macro casino design, with order of presentation counterbalanced within conditions. The lights and color manipulation variables were each treated as separate ANOVA analyses in the study.

Because it is possible to use a video camera in Las Vegas (unlike most gambling venues in North America), we visited Las Vegas with professional videographers. Three separate teams of a researcher and a videographer strategically shot footage in hotel casinos representative of naturally occurring variations in information rate (flashing versus static lights and bright versus monotone colors) in each of the playground and gaming macro designs. The videos were subsequently edited to create 3-minute scenarios, maximizing the constellation of features specific to each macro-design and manipulation option. Consequently, eight, three-minute video simulations were created as follows: Playground design flashing lights, Playground design static lights, Gaming design flashing lights, Gaming design static lights, Playground design bright colors, Playground design monotone colors, Gaming design bright colors, Gaming design monotone colors.

Pretests

Each of the 8 video simulations were submitted to pre-testing to assess their scores in terms of information rate, gambling intention and arousal. We have recently acquired hardware and software which were applied in the current study to initially test macro design manipulations and to check the lighting and color manipulations. *Resolver* Ballot, a survey instrument allows respondents to answer survey-type questions using a hand-held, wireless device to indicate responses on a number of dimensions. Responses are automatically tabulated into a data set for analysis. Questionnaire items are programmed into the software and appear on a screen. Respondents answer the scaled questions presented to them by punching the appropriate key on their hand held devices. The second software program is *Resolver* Votestream, which records respondent ratings of visuals at millisecond intervals as feelings toward visual stimuli change. This software permits assessment of on-line changes in reactions (e.g., to what extent do you believe that lights in the video you are watching are static (not flashing versus flashing). Respondents press the button “1” if they think they are seeing lights which are static (not flashing) and “3” if they think the lights are flashing at the time they are viewing the video. Responses are averaged across the sample of subjects and the output is a video recording of each video simulation over which a graph is laid indicating the changing average responses of the sample of viewers relating to static versus flashing lights over the time that the video runs. Using this technology, we were able to identify which segments of videos consumers may think incorporate non-flashing versus flashing lights (or bright versus monotone colors) and instruct our videographers to edit the video simulations as required.

Participants in the final study were 188 gamblers, paid \$30 for participation and recruited by posting signs near casinos, in malls, and at bars and restaurants in cities in Southern Ontario, Canada. The signs encouraged individuals who like to gamble to contact the researcher.



Participants were tested in small groups (3-10) in a mini theatre-style setting at the University of Guelph. Instructions to respondents during viewing of the casino simulations were to imagine themselves in the setting since they would later be asked how they would feel in such a setting. The videos were presented in a counterbalanced order following a Latin square design to alter order of presentation of the playground versus gambling macro designs and manipulation versions. Following each video, participants completed sets of 7-point scales measuring information rate, restoration, arousal and intention to gamble irresponsibly. Respondents perceived intention to gamble irresponsibly was gauged using a five-item, 7-point anchored by “totally disagree” and “totally agree.” Statements included, “I would have trouble quitting without placing one more bet at this place,” and “I would gamble/play more money than I intended at this place.” McKechnie’s (1977) eight-item, 7-point restoration scale required respondents to indicate their degree of agreement or disagreement with statements such as: “This place is a refuge from unwanted distractions” and “Spending time here gives me a break from my day to day routine.” A six-item scale measured arousal (Mehrabian and Russell, 1974). Respondents were asked to mark the spot on a -3 to +3 scale closer to the adjective anchor that better described their feelings about the casino simulation they had just viewed. Adjective descriptors included “calm” versus “excited” and “unaroused” versus “aroused”.

## Results

Initial results corroborate previous findings (Finlay et al., 2005). Gambling intention was higher when both colour and light manipulations were combined for the playground model ( $M = 3.77$ ) than for the gaming model ( $M = 3.24$ ),  $F(1,182) = 23.31$ ,  $p = .00$ , as was arousal (playground.model  $M = 4.88$  versus gaming model  $M = 4.49$ ),  $F(1,186) = 17.72$ ,  $p = .00$ ).

Restoration was higher for the playground model ( $M = 4.60$ ) than the gaming model ( $M = 3.91$ ,  $F(1,187) = 61.06$ ,  $p = .00$ ).

Related to the current research, flashing lights increased gambling intention and arousal for both macro casino designs (Gambling intention: Playground: static lights  $M = 3.61$ , flashing  $M = 4.14$ ; Gaming: static lights  $M = 2.94$ , flashing  $M = 3.61$ , difference (macro design),  $F(1,90) = 14.13$ ,  $p = .00$ ; difference (lighting manipulations)  $F(1,90) = 2.87$ ,  $p = .09$ ). Arousal and gambling intention increased with flashing lights for both macro designs (Arousal: Playground: low arousal  $M = 4.93$ , high arousal  $M = 5.19$ ; irresponsible gambling intention  $M = 4.16$ , high  $M = 4.90$ ; difference (macro design),  $F(1,95) = 17.05$ ,  $p = .00$ ; difference (lighting manipulation)  $F(1,94) = 6.75$ ,  $p = .01$ ). Neither of the interactions between macro design and lighting manipulation were significant for gambling intention nor arousal. Restoration decreased insignificantly for the playground design, and remained static for the gaming design.

Bright colors did not influence gambling intentions for the playground model monotone colors  $M = 3.60$ , bright colors  $M = 3.75$ ; difference ( $F < 1.00$ ), but decreased gambling intention for the gaming model. Gambling intention for the latter macro design with monotone colors was  $M = 3.49$ , and  $M = 2.82$  for bright colors, difference approached significance ( $F(1,89) = 3.35$ ,  $p = .07$ ). This difference drove a significant two-way interaction between macro design and the colour manipulation on gambling intention ( $F(1,89) = 7.08$ ,  $p = .01$ ). Arousal remained unchanged for the playground model ( $F < 1.00$ ) and directionally decreased for the gaming model ( $F(1, 89) = 3.70$ ,  $p = .06$ ). No differences in restoration were registered for either macro design as a function of the casino design using monotone versus bright colors (all  $F < 1.00$ ).

Summary and Discussion

The current program of research indicates that incremental information and arousal afforded by flashing lights in a casino setting should be avoided for both playground and gaming macro designs. Incremental anxiety induced by flashing lights appears to exaggerate poor decisions made by gamblers who may be chasing losses by betting more than planned, spending more money than planned or by engaging in unplanned additional games.

Bright colours appear to be more influential, perhaps more expected, and more likely to reduce negative gaming intentions in a gaming casino model. Monotone colours in a gaming setting may seem incongruent and sufficiently psychologically distressing to motivate gambling behaviour that was not planned. Neither a monotone nor a bright colour scheme affected feelings and behaviour in the playground casino. The design of playground-type casinos is traditionally inspired by a greater variety of colour schemes, sometimes monotone in nature, sometimes using brighter colors. The same is not true for a gaming design, which tends to rely on a bright color scheme. We had thought that a monotone scheme for the gaming model might motivate more serene feelings, increasing restoration and reducing the likelihood of gambling beyond planned levels. Instead, monotone colors stimulated gambling intentions, likely due to them being unexpected in a gaming setting.

As with past research, some design variations are appropriate for both playground and gaming designs, as with the case of the use of static rather than flashing lights, while other design changes are helpful to one or the other macro design. Monotone or bright colors can be used in a playground design, but a monotone color scheme should be avoided for a gaming-designed casino. Individuals making the decision to frequent a gambling institution may be advised through their counsellor-driven treatment plans to avoid gaming areas characterized by excessive flashing lights, regardless of its overall macro design. Gaming institutions

traditionally featuring a variety of bright colors will not enhance irresponsible gambling behaviour by enhancing color variation. Finally, casino designers should avoid the use of flashing lights which appears to stimulate emotions which are detrimental to gamblers with problem tendencies.

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### Author Note

The order of authors is alphabetical signaling the collaborative nature of the research.

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## **Session 4B (Mirage Bar)**

The Effect of Gender and Group-membership on Anti-smoking Beliefs,  
Susceptibility to Anti-smoking Messages, and Anti-smoking Activism.  
*Bhatnagar Namita, University of Manitoba*

THE EFFECT OF GENDER AND GROUP-MEMBERSHIP ON ANTI-SMOKING BELIEFS,  
SUSCEPTIBILITY TO ANTI-SMOKING MESSAGES, AND ANTI-SMOKING ACTIVISM

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Abstract

This research investigates the formation of anti-smoking beliefs, receptiveness to anti-smoking messages, perceived message susceptibility, and anti-smoking activist inclinations when consumers encounter smokers. Two studies were conducted. Study 1 (qualitative) explores various activist intentions and motivations. Variations on the basis of group-membership and gender are examined in study 2. Significant gender and group differences are found. Women worry about and are more open to information about harmful effects when they encounter smokers – regardless of their group membership. Men on the other hand become troubled when friends smoke – they show greater susceptibility to anti-smoking messages when situations become personally relevant.



In search of effective anti-drink and driving advertising themes: A comparison of four themes and their effects on high risk audience  
*Balabanis George\**, *Mitchell Vincent Wayne*, *Manson Charlotte*, *Katsikeas Constantine*  
*\*City University*

## Abstract

The paper examines the effects of different advertising themes on people more likely to engage in drink and driving (DD) behaviors. Drink and driving campaigns commonly rely on the following four themes (1) threat of arrest and legal consequences; (2) threat of harming oneself, (3) threat of harming others, and (4) the threat of social stigmatizing drunk drivers as irresponsible and dangerous. Using Protection Motivation Theory a set of hypotheses was formulated on the effectiveness of each theme to individuals with different levels of: (1) perception of DD threats; (2) engagement in drink and driving behavior; and (3) sensation seeking. A mixed experimental design was used in a sample of 200 drivers. Results showed that “harming oneself” and “harming others” themes were perceived to be the most persuasive and on average had the highest effect in changing intentions against DD. However, these themes were less effective to high risk audiences. Overall, milder appeals and emphasis on individual’s susceptibility to DD threats were found to be more effective for high risk audiences.

**IN SEARCH OF EFFECTIVE ANTI-DRINK AND DRIVING  
ADVERTISING THEMES: A COMPARISON OF FOUR  
COMMON THEMES AND THEIR EFFECTS TO HIGH  
RISK AUDIENCES**

There is an agreement that programs should be undertaken to prevent drink and driving behavior given its consequences (Institute of Alcohol Studies IAS, 2005). Figures show that in 2002, there were 20,000 casualties and 560 deaths from drink and driving (Department of Transport 2004). The main reason is that alcohol diminishes the ability of the brain to receive, process visual or auditory messages and slows down reaction time by 10% to 30% (IAS, 2005). Alcohol reduces drivers' ability to perform more than two tasks at the same, limits their peripheral and night vision and leads to overconfidence. Advertising has become an important tool to the war against drink and driving (DD) behavior. Elder et al (2004) in a meta-analytical study found that advertising campaigns are effective as reduce alcohol related crashes rate by a median rate of 13%.

The majority of anti-DD ads are based on various types of fear: fear of arrest and legal consequences of arrest; fear of harm to self, others, or property; and social stigmatizing drinking drivers as irresponsible and dangerous (Elder et al.2004). Evidence of the effectiveness of different "fear based" advertising themes is limited and controversial (Keller-Anand, 1999; Donovan *et al*, 1995). For example, DeJong and Atkin (1995) reported that the use strong fear appeals is counterproductive as can cause some people to ignore or discount the messages. On other hand Witte and Allen (2000) produce evidence that strong fear appeals are more effective than weak appeals in changing attitudes, intentions, and behaviors. It appears that an interactions between the message theme and characteristics of the recipient to explain these controversy

(Elder et al, 2004). Strong fear appeals may be more effective for people that do not see drink and driving important or relevant to them (Tay, 2002) or people who are already engaging in the desired behavior (Keller-Anand, 1999) or low sensation seekers (Fry and Dann, 2002). All of them are low risk audiences.

Although, Elder et al (2004) meta-analysis did not identify any difference in the effectiveness of campaigns emphasizing the legal consequences or the social/health consequences of DD; they concluded that more research is needed on assessing the relative effectiveness of various advertising themes and how they interact with different recipients. Thus, an important question is which anti-DD advertising themes are more effective and for what types of audiences. Of particular interest are the high-risk audiences (i.e., audiences that already engage in DD or those more likely to engage, in the future) as there is very little research in the field. This study will try to identify the most effective themes for different categories of high risk audiences.

## LITERATURE REVIEW AND HYPOTHESES

Wolburg (2001) qualitative research that was based on a number of theoretical frameworks explained why people engage in risky drinking behavior and show little regard of its many negative consequences. Relying on this research and using the Protection Motivation Theory (PMT; Rogers 1983) number of propositions are developed related to the effectiveness of different advertising themes. PMT assumes that four elements of a ad message cause corresponding cognitive mediation processes: (a) probability of incidence occurrence in an ad increases perceived susceptibility; (b) size of “noxiousness” portrayed in the ad increases perceived severity; (c) account of the effectiveness of the suggested response influences perceived response efficacy; and (d) descriptions of a person’s ability to undertake the suggested

response increases perceived self-efficacy. PMT also posits that when each of the above variables is at a high level, then protection motivation will reach its highest level, and the message will be accepted (i.e., change of attitudes, intentions and behavior will take place). Specifically, the impact of four anti-DD advertising themes on the cognitions that they attempt to influence as well as attitudes and intentions. In this case the impact on the following cognitions will be examined: (1) perceived severity of DD risks (i.e., car crash, legal consequences and social stigmatization risks) and (2) perceived susceptibility to these risks. As the chosen themes do not provide characterizations on the ability of a person's ability to control DD behavior, changes in self efficacy (one of the elements in PMT) were thought to be irrelevant. As self-efficacy proves very rigid difficult to change (Bandura 1997). only one level (pre test) of self efficacy was used. Response efficacy, which we proved irrelevant in this context, because refraining from DD (the main proposition) is 100% effective for avoiding the risks of DD. A recent review of the literature (Elder et al, 2004) identified four types of fear appeals to drink and driving campaigns: (1) threat of arrest and legal consequences; (2) threat of harming oneself, (3) threat of harming others, and (4) the threat of social stigmatizing drunk drivers as irresponsible and dangerous. On the basis of above we selected (after a review of existing ads and a pre-test of several ads we created for this purpose) the four ads that represent each of the above themes. All ads used had the same key message "Don't Drink and Drive!" Ad 1 (threat of arrest and legal consequences) depicted a policeman arresting a DD and provided facts on the number of people checked by the police every year as well as the penalties for DD offenders. Ad 2 (threat of harming oneself) depicted a gruesome scene from a fatal car crash where the driver was dead. Information was provided on the number of people dying every year in DD-related

accidents. Ad 3 (threat of harming others) is the picture of a disfigured victim of DD accident with information on the number of injuries caused by DD accidents every year.

Ad4 (the threat of social stigmatization) depicts disapproving middle-aged female and the emphasis was on the number of DD-related convictions every year and the feelings of friend and family. On the basis of the above advertising themes we expect that:

H1. Each advertising theme will change the respective (i.e., emphasized) cognitions of (a) perceived severity of the depicted threats and (b) perceived susceptibility to the depicted threat; (c) perceived persuasiveness of the ad (d) attitudes towards DD and (e) intentions towards DD.

Keller-Anand (1999) commented on existing theories related to the effectiveness fear based themes that fail to take into account individual's a priori resistance to such them. Witte (1992) suggested that fear-based messages will be processed only by those who recognise a risk and feel vulnerable to it (i.e., high severity and high susceptibility). The greater the perceived threat (severity and susceptibility) the more attention the message will get and the more involving the subsequent processing of the message will be (Witte, 1992). In the opposite case where the perception of threat is low, there will be no motivation for an individual to continue message processing and hence change cognitions (Wolburn 2001) that impact of ads to people where the perceived level of threat is low is minimal. Thus,

H2. The message will have a limited effect to people that do not feel personally susceptible to DD consequences and do not recognise the severity of DD threats will not accept the message (i.e., change severity and susceptibility cognitions)

Keller-Anand (1999) showed that strong fear appeals are effective to individuals who were already complying with the "adaptive" behavior (i.e., don't drink and drive); whereas low fear

appeals were found to be more effective to the unconverted (“drink drivers”). The main reason is that incongruence between message and behavior may lead to defensive avoidance (i.e., ignore the message or suppress cognitions related to message) or reactance (to what they perceive to be a manipulative message). Thus,

H3: Advertising message themes with strong feel appeal (seriously harming oneself or others in our case) will have lower effects (change of cognitions, attitudes and intentions) to those who engage in DD than those who don't.

Sensation seeking is found to be related to DD behavior (Jonah, Thiessen and Au-Yeung, 2001). High sensation seekers (HSSs) are prepared to undertake risky behaviors such as DD for the excitement and thrill of it. According to Fry and Dann (2002) HSSs will engage to biased cognitive processing and we will avoid or ignore anti-DD messages.

H4: Advertising message themes will have different level of effectiveness to high sensation seekers and low sensation seekers.

Rogers (1983) claims people may not change “maladaptive” behaviors (e.g., drink and drive) if the benefits of that behavior (e.g., thrill, social approval) are greater than the perceived severity of the danger (e.g., fatal accidents) and their perceived susceptibility to the danger (e.g., likelihood of causing an accident). Thus, increases in rewards will increase the probability of DD while increases in perceived threat (severity/susceptibility) decrease the probability of DD in the future (Prentice-Dunn & Rogers, 1986).

H5: A person's intentions not to DD will be a positive function of perceived (a) severity and susceptibility of the depicted threats and (b) the self-efficacy of controlling DD behavior; and these intentions will be a negative function of perceived (c) benefits of DD

## METHODOLOGY

A mixed pre-test/post-test experimental design was used to test the above hypothesis. 200 drivers that drink alcohol (occasionally or on a regular basis) were randomly selected and screened from the student population major British University. The age range of the sample was 18-25 with average driving experience of 3.6 years.. This sample was deemed appropriate as 52% of the convicted drunk drivers in Britain are under 33 with low driving experience (IAS, 2005). The four print ads described earlier were used to capture the focal themes of the study. Three of them were created by the authors and one ad (harming others) was taken from the USA and was never shown in Britain precluding any external effects. The ads together with other six we prepared were pre-tested in a sample of 10 experts on their match with the theme and persuasiveness. The ads with the highest match (judges' agreement) to the theme and the highest scores in persuasiveness were selected. We randomly assigned 50 subject to each treatment (print ad). Subjects had to fill in the main questionnaire before exposure to the ad. After exposure subjects had to provide additional information on the key variables (assessment of ad, cognitions, attitudes and intentions).

The following measures were used. Perceived threat (i.e., susceptibility and severity) was measured on a seven point (-3 to +3) semantic differential scales (very unlikely / very likely, insignificant / significant threat) on the following items: (a) get caught, (b) lose your driver's license, (c) receive a fine, (d) be arrested and jailed, (e) be labelled as dangerous by your peers, (f) be called socially irresponsible by your friends/family, (g) be responsible for a car crash, (g) injure yourself injure others that you do not know, (h) get killed, (i) kill other innocent people. Factor analyses for susceptibility and severity revealed two factors. Items (a) to (f) loaded to one factor labelled "severity of getting arrested" and "susceptibility to get arrested", respectively



( $\alpha=0.91$ ;  $\alpha=0.92$ ). Items (g) to (i) loaded in different factors labelled “severity of a car crash” and “susceptibility to cause a car crash”, respectively ( $\alpha=0.96$ ;  $\alpha=0.92$ ). Self-efficacy was measured on four 7-point bipolar items: How much control do you have over whether you drive or not after several drinks? (Little/ high control); for me, to keep away from driving after several drinks is (difficult/easy); if I want to I can easily avoid driving after having several drinks (unlikely/likely); how confident do you feel about your ability to drive after several drinks?(not at all/ very confident) ( $\alpha=0.86$ ). Intentions to DD were measure on a seven point Likert scale on the following items In the near future... I would not hesitate to drive after more than two alcoholic drinks; If the distance is short, I would not be concerned to drive while under the influence of alcohol; I would not hesitate to drive while drunk ( $\alpha=0.87$ ,  $\alpha=0.88$ ). Attitudes against DD were measured on 3 seven point bipolar items (good/bad, favourable/ unfavourable, positive/ negative) ( $\alpha=0.93$ ;  $\alpha= 0.89$ ). Persuasiveness of the ad was measured on 3 seven point bipolar items (not convincing/ convincing, unbelievable/ believable, not persuasive/ persuasive) ( $\alpha=0.91$ ). Past behaviour was assessed on the following yes/no questions: In the last 12 months have you driven after having: 1 or 2 alcoholic drinks (i.e., legal limit)? /3 alcoholic drinks?/ 4 alcoholic drinks?/ 5 alcoholic drinks/ 6 or more alcoholic drinks?. Perceived benefits were measured on a single item taken from Burns et al (1993). Social desirability was measured on a shortened 10 item version of the Marlow Crowe scale (Ray, 1984). Finally, Sensation seeking was measured on Zuckerman (1994) SSSV scale (i.e., Thrill and Adventure Seeking ,  $\alpha=0.93$ , Experience Seeking,  $\alpha=0.86$ ; Disinhibition,  $\alpha=0.85$  and Boredom Susceptibility, 0.83).

## HYPOTHESES TESTS

Analysis of variance (ANOVA) of the perceived persuasiveness of the different ads showed a statistically significant difference ( $F(3,196)=28.899, p=0.000$ ). Post hoc (Scheffe) pairwise comparisons indicated that harming others is perceived the most persuasive of all ads followed by the harm oneself ad. The social stigmatisation and legal consequences were perceived to be the least convincing ads of the four. However, despite these differences for the testing of hypothesis H1 (related to changes of cognitions) a paired t-test procedure was used. Results for the legal consequences theme showed a statistically significant increase in the perceived susceptibility of getting arrested ( $t=9.103$ ) and a change in the general attitudes towards drink and drive ( $t=-4.063$ ). On the other hand, the social stigmatisation theme had only a significant effect in changing attitudes towards DD ( $t=-4.530$ ). The harm oneself ad increased the perceived susceptibility of causing a car crash ( $t=3.923$ ) and changed the attitude towards DD ( $t=4.413$ ). Finally, the harming the others theme had very similar effects. It increased susceptibility to cause an accident ( $t=2.080$ ) and changed attitudes towards DD ( $t=2.873$ ). A repeated measures analysis of variance design was used to see if there were any differences across groups in the changes of attitudes towards DD. Results showed that there were no differences in the change of attitudes (Greenhouse-Geisser  $F(3,196)= 1.291, p=0.279$ ), but there were some differences in the changes of intention to DD (Greenhouse-Geisser  $F(3,195)=2.665, p=0.049$ ). In particular, post hoc pairwise test (Scheffe) revealed that the “harming others” followed by the “harming oneself” ads generated greater changes in intentions than the “social stigmatisation” and “legal consequence” ads.

*High risk groups.* To determine the high risk groups a two stage cluster analysis using the cubic criterion to determine the number of clusters was employed. Specifically hierarchical cluster analysis using the Wards method was used to establish the number of clusters. The centroids of

the identified cluster were used as seeds to K-means cluster analysis that was used to establish final cluster membership. This procedure was separately applied to the past behaviour items; the four perceived susceptibility and severity of threats and the four dimensions of the sensations seeking scale. Results identified five behavioural groups (1) “abstainers” (28.5%) who did not drink at all when drive; (2) “within the limit” (35%) who DD but stay within the legal limit; (3) “occasional minor offenders” (10%); (4) “customary minor offenders” (15%) and (5) “major offenders” (11.5%). Cluster analysis of the perceptions of threat (susceptibility and severity of getting arrested and causing a car accident) identified two groups: (1) the group with high threat perceptions (HTPs, 69.6%) with high scores in both susceptibility and severity scales and (2) those with low threat perceptions (LTPs, 20.4%). Finally two types of sensation seekers were identified: (1) low sensation seekers (LSS, 57.7%) with low score in all the sensation seeking dimension and (2) high sensation seekers (HSS, 42.3%). As expected, ANOVA revealed that “major offenders” and “customary minor offenders” intentions (not to DD) and attitudes against DD ( $F(4, 194)= 43.721, p=0.000$ ;  $F(4,195)=12.624, p=0.000$ ) were (in pre-test) and remained (post lower than the other 3 groups. Similarly, LTPs and HSS groups intentions and attitudes against DD respectively were and remained significantly lower than HTPs and LSSs. This is indicative that LTPs; HSSs; “major offenders” and “customary minor offenders” are the most resistant groups to all four appeals.

Two way ANOVA was undertaken to examine differences in the perceived persuasiveness of the four ads across between HTPs (hypothesis H2) . Results indicated an interaction effect for “type of message”×”threat group” [ $F(3,186)=2.210, p=0.068$ ]. Pairwise comparisons revealed that LTPs found the “harming others” and “harm oneself” themes less persuasive than HTPs. No other differences were observed for the other two themes. Repeated measures ANOVA

revealed no differences between HTPS and LTPs in the changes of cognitions (susceptibility and severity) across the four themes. Hypotheses H2 can partially be accepted as milder fear appeals are perceived more persuasive by LTPs, however no differences in the changes of cognitions were observed.

Two-way ANOVA was undertaken to examine differences in the perceived persuasiveness of the four ads across the five behavioural groups. Results indicated a statistically significant interaction effect for “type of message” × “behavioural group” [ $F(12,180)=2.210, p=0.013$ ]. Specifically, “abstainers” found the “harming others” theme more persuasive than the other groups. Compared to other groups, the “social stigmatisation” theme was found more persuasive by the “customary minor offenders”; whereas the “legal consequences” theme was more convincing for the “within the limit” group. An examination of the changes of cognitions using repeated measures ANOVA revealed that the “harming oneself” theme increased the perceived susceptibility to cause a car crash for the “minor customary offenders” and the “major offender groups” ( $F(4,45)=2.882, p=0.033$ ) more than the other groups. Whereas, compared to other groups, the “social stigmatisation” theme increased more the perceived severity of getting arrested consequences for the “minor customary offenders” and “major offenders” ( $F(4,45)=2.814, p=0.036$ ). No changes in intentions to DD were observed across the 5 groups. However, in comparison to other groups “minor customary offenders” and “major offenders” exhibited higher changes in the attitudes towards DD as a result of the “social stigmatisation” theme ( $F(4,45)=5.002, p=0.002$ ).

H3 can be partially accepted as strong fear appeals (like harming others) were more convincing to those who do not engage in DD, whereas offender groups found milder fear appeals (i.e.,

social stigmatization) more convincing. Similarly social stigmatization was more effective in changing attitudes and severity cognitions for the two offenders group. Unlike what was predicted in H6, a strong fear appeal (“harming others”) also change the perceived susceptibility of the two offenders groups.

Two way ANOVA was undertaken to examine differences in the perceived persuasiveness of the four ads between HSSs and LSSs (H4). Results showed a difference (for all four ads) between HSSs and LSSs but failed to uncover a significant interaction between “type of message” × “sensation seeker group”. LSSs found all the ads more persuasive than HSSs. Repeated measures ANOVA revealed that the “harming others” theme increases susceptibility to cause a car crash more for HSS than LSSs ( $F(1,46)=10.433$ ,  $p.0,002$ ). Hypothesis H4 can be accepted as HSSs resisted all ads and not a specific one. In a addition a strong fear appeal (“harming others” was effective in altering their perceived susceptibility to car crash threats.

Regression analysis (controlling for social desirability) in Table 1 provided support to most of the H5 propositions all types of perceived threat (both susceptibility and severity) was important deterrents to DD. Self- efficacy and perceived benefits did not have any impact. Standardised betas showed that susceptibility to the two risks (causing an accident and getting arrested) were slightly more important than the perceived severity of the same risks. Two way interactions between perceived threats and self efficacy were explored through hierarchical moderated regression analysis. Findings show that self-efficacy interacts with severity causing car crash and perceived susceptibility to cause an accident. As expected we have higher reduction to the intentions to DD when high self-efficacy is combined with high perceived threat (likelihood and susceptibility) to cause an accident.

Regression analyses were run separately for the different high risk groups and regression coefficients across groups were statistically compared. Tables are not reported due to shortage of space. The main findings were that susceptibility to get arrested or cause an accident were found to be more important (for changing intentions) to HSS than LSS whereas the perceived severity of car accidents were more important to LSS than HSS. Regarding HTPs and LTPs, analysis showed that HTPs are more responsive (in terms of intentions towards DD) to both susceptibility and severity of causing crash and that self-efficacy is more important to the HTPs than LTPs. Regarding the behavioural groups the following differences were identified: The perceived susceptibility to get arrested is more important deterrent for the “minor customary offenders” whereas the susceptibility to cause a car crash is more important to “major offenders”. The perceived severity of causing an accident is more important as a deterrent to the “abstainers”. The perceived severity of getting arrested consequences is more important to the “within the limit” and “occasional minor offenders”. No other differences were observed.

## DISCUSSION AND SUMMARY OF RESULTS

Of the four anti-DD advertising themes we tested two, “harming oneself”, and “harming others” were perceived to be the most persuasive and had the highest effect in changing intentions against DD. The same two themes also increased the perceptions of susceptibility to car crashes, whereas the “legal consequences” theme only increased the susceptibility of getting arrested. Both cognitions are instrumental to the change of DD intentions. However, when one checks the effects of these themes to high risk populations the picture is different. People that hold low threat perceptions on DD and the more likely to engage in that behavior as well as people who engage in one form or another to DD found the “harming others” and “harming oneself” themes

less persuasive. In particular, some of the milder-fear appeals (legal consequences and social stigmatization) were perceived more convincing and generated greater changes in DD intentions and attitudes for people with certain levels of engagement in DD than other groups. Thus a certain degree of reactance and defensive avoidance may occur when use strong fear appeal themes to high risk DD groups. However, the observed changes in the cognitions were not that clear-cut for those who engage in DD. For example, “harming others” a strong fear appeal theme was effective with the customary and major offenders groups and HSSs in changing their perceptions of susceptibility to causing car crashes; whereas a milder appeal (social stigmatization) increased the perceived severity of getting arrested in the same groups. It appears that is more the level of evoked fear that control responses to the different themes. Interestingly, the perceived susceptibility to the threat (which is influenced by “harming others”) are important determinants of intentions for the major and customary offenders and HSS. Whereas, severity of threats seem to be more important for the intentions groups that engage to DD in a lesser degree. It appears that emphasis on susceptibility (occurrence of threats) to be more effective for that groups than severity of risk, regardless the levels of self-efficacy. Policy authorities when they design their campaigns should take into account that it is not only the level of fear that affects message acceptance but additional factors and that milder appeals or emphasis on occurrence of threat (susceptibility) may be a more important deterrents to DD for the higher risk groups.

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Table 1

*Regression analysis*

<b>Dependent variable: Intentions towards DD</b>		
Susceptibility to get arrested	<b>-0.248</b>	0.003
Susceptibility to cause a car crash	<b>-0.200</b>	0.009
Severity of DD car accidents	<b>-0.189</b>	0.014
Severity of getting arrested consequences	<b>-0.186</b>	0.002
Perceived Benefits of DD	-0.104	0.100
Self efficacy	-0.021	0.732
Social Desirability	-0.072	0.179
<b>Adj R<sup>2</sup></b>	0.484	0.000

Tailoring Health Messages: Determinants of Motivation to Change

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## Abstract

Tailored communications have been effective in increasing both recall and readership of health information. The present research explores possible approaches to increase the effectiveness of message tailoring.

The Stages of Change Model (Prochaska and Di Clemente 1984) was used to segment the sample into four distinct groups. The behavioral determinants (Fishbein et al. 2001) for respondents in each group were then identified.

Significant differences between segments (precontemplative, contemplative, action and maintenance) provide insights into ways to move an individual from one stage to another.

## TAILORING HEALTH MESSAGES:

### DETERMINANTS OF MOTIVATION TO CHANGE

#### INTRODUCTION

Evidence from several studies indicates that tailored communications are significantly more effective in increasing recall, readership, and interest than non-tailored communications (Skinner et al. 1999, Brug et al. 1999).

Four theories dominate literature on message tailoring: the Theory of Reasoned Action and the Health Belief Model focus on behavioral prediction; the Social Cognitive Theory and the Stages of Change Model focus on behavioral change. Yet, the theories do share common constructs such as self-efficacy and outcome expectancies, whether termed attitudes or benefits and barriers.

Fishbein (Theory of Reasoned Action), Becker (Health Belief Model), Bandura (Social Cognitive Theory), Triandis (interpersonal behavior), and Kanfer gathered at a “theorists workshop” organized by the National Institute of Mental Health (Fishbein et al. 2001) and identified eight constructs to be considered in the behavioral analysis of health problems: intention, environmental constraints, skills, anticipated outcomes (or attitude), norms, self-standards, emotion, and self-efficacy.

The purpose of this research is to identify the profiles of individuals within each stage of change using the eight behavioral determinants identified by Fishbein and colleagues (2001).

The behavior chosen for this research is reducing fat consumption. Obesity is currently a major health problem in United States. Unlike many other current health issues, this problem has experienced a dramatic increase.

*Hypothesis:* Behavioral constructs outlined in the “theorist’s workshop” (Fishbein et al. 2001) will express different patterns across stages of change related to reducing fat consumption

## METHODOLOGY

### Sample and Procedures

A convenience sample of 183 respondents participated in the study. A pretest (N = 10) was conducted to develop the content for the final survey.

### Measures

*Stage of Change* was assessed using a staging algorithm (i.e. Prochaska, 1994) related to reducing fat consumption. Students responded to four self-report questions by indicating yes or no.

*Intention* was measured by asking respondents “Overall, all things considered, I intend to reduce my fat consumption in the next month.” using a 7-point probability scale anchored with extremely unlikely/extremely likely.

*Overall Attitude* was assessed by asking, “Overall, all things considered, my reducing my fat consumption in the next month is.” Two 7-point semantic differential scales anchored with extremely bad/extremely good and extremely unfavorable/extremely favorable were used.

*Affect* was assessed using a list of twelve emotional responses: fearful, surprised, nervous, active, anxious, happy, pleased, astonished, satisfied, elated, excited, aroused (Watson and Tellegen, 1985). A 5-point scale was used.

*Attitude* ( $\sum b_i e_i$ ) was measured by assessing the belief of the likelihood of some perceived outcome multiplied by the evaluation of that outcome. Respondents used a 7-point probability scale to express the belief and the evaluation of each outcome.

*Barriers* (environmental constraints and skill deficiencies) were assessed with a 5-point scale by asking, “When you are trying to reduce your fat consumption, how often do each of the following occur

*Normative Pressure* was measured by first multiplying a respondent’s belief that a particular referent thinks the respondent should or should not (7-point scale) reduce his/her fat consumption by the motivation to comply (7-point scale) with that referent. Products were then summed to attain a measure of normative influence. The referents kept from elicitation were friends, boyfriend/ girlfriend, family, diet groups (i.e. Weight Watchers), doctors, and athletic teams.

*Self-Standards discrepancies* were assessed using five 7-point scales anchored by two opposing characteristics of a person. The pairs of characteristics identified in the elicitation were lazy/motivated, careless/meticulous, strong-willed/weak-willed, satisfied/ unsatisfied, and unhealthy/healthy. Respondents were first asked to rate themselves on each scale. Next, they were asked to rate a college student who always watches his/her fat consumption. An absolute discrepancy score was determined by summing the absolute differences for each pair of scales.

*Self-Efficacy* was measured using a probability scale from zero to 100. Respondents rated their certainty that they can reduce their fat consumption under six conditions: when eating out, when I’m very busy, even if low-fat foods cost more, when I don’t have much time to cook, when told to do so by a doctor, and when others around me are eating fattening foods.

## RESULTS

After exploratory and confirmatory analysis to identify the determinants of each construct, we examined patterns across the stages of change. ANOVAs were conducted to test for differences among the four groups. The final samples included 50 in the precontemplative (P)



stage; 22 in the contemplative (C) stage; 68 in the action (A) stage; and 43 in the maintenance (M) stage.

Results indicate the existence of significant or near significant differences ( $p \leq .10$ ) in the behavioral determinants during the transition from one stage to the next. From (P) to (C), there are significant increases in intention, normative pressure, attitude, outcome expectancies ( $\Sigma b_i e_i$ ), and negative and positive affect. From (C) to (A), intention again increases significantly. Also in this transition, self-efficacy increases and normative pressure and negative affect decrease. From (A) to (M), there is a significant decrease in skill deficiencies accompanied by increases in normative pressure, outcome expectancies ( $\Sigma b_i e_i$ ), self-efficacy, and positive affect.

## CONCLUSION

As individuals move through the stages of change, their intention to change the behavior of interest also increases. Individuals within each stage have unique profiles. While external constraints and self-standards are consistent across the segments, the remaining behavioral determinants do express distinct patterns.

These different patterns across the stages of change segments suggest that strategies to increase intention using tailored communications should be different for each group. Typically, the messages used in the tailoring literature focus on the same determinants for all individuals. The profiles for each segment suggest that specific determinants should be targeted for certain segments.

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Intrapersonal Variation in Consumer Susceptibility to Normative Influence:  
Antecedents and Consequences  
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## Abstract

Based on a consumer sample, this paper establishes that susceptibility to normative influence varies within individuals. Across three consumption situations, consumers were more and less susceptible to the normative influence of reference groups and exhibited differences in the benefits desired from a brand. Tests of a comprehensive structural equation model reveal that reference group salience interacts with personal values and social identity complexity in effecting susceptibility to normative influence and thus desired brand benefits and choice.

INTRAPERSONAL VARIATION IN CONSUMER  
SUSCEPTIBILITY TO NORMATIVE INFLUENCE:  
ANTECEDENTS AND CONSEQUENCES

INTRODUCTION

It is generally acknowledged that the awareness that others will observe one's decision induces impression-management concerns that lead individuals to alter their consumption choices (e.g. Aaker, 1999; Belk, 1988; Cialdini & Goldstein, 2004). One of the consequences is that individual brand choice varies across situations (Bearden & Etzel, 1982; Ratner & Kahn, 2002; Schmitt & Schultz, 1995). A significant part of this variation has been attributed to individual differences in consumer susceptibility to normative influence, SNI (Bearden and Etzel, 1982; McGuire, 1968). Although several researchers suggest that individual susceptibility to normative influence should vary depending on what reference group is salient (Bearden, Netemeyer & Teel, 1989; McGuire, 1968; Terry & Hogg, 1996), and despite the considerable theoretical and practical implications were such an intra-personal variation to be confirmed, no empirical study could be found examining this proposition.

LITERATURE AND HYPOTHESES

Initial evidence for situational variation in SNI draws from McGuire's (1968) original conclusion that a person's relative influenceability in one situation has a significant positive relationship to his or her influenceability in a range of other social situations. Furthermore, when correlating SNI with consumer behavioral measures, the commonly used item battery explicitly identifies friends and relatives as "others" (Bearden, Netemeyer & Teel, 1989, p.478) hereby

acknowledging that individuals will try to relate the “products and brands” mentioned in the scale to specific product categories. Similarly, research on reference groups as sources of social norms suggests that this influence varies with different groups of “others” (Cialdini & Goldstein, 2004; Terry & Hogg, 1996). With general agreement that norms are situation-specific, that conformity to norms is tied to membership in specific reference groups, and that reference group salience varies accordingly (White, Terry & Hogg, 2002):

**H1:** An individual’s susceptibility to interpersonal influence will be greater for purchase or consumption situations in which a reference group is salient compared to when no reference group is salient.

Individual values, that is, the enduring beliefs that individuals hold about specific modes of conduct they believe are important, have been reported to guide the resolution of situations and to generally effect consumer behavior (Kahle, 1996). Specifically examining the role of individual values in influencing SNI, Batra, Homer and Kahle (2001) found that external values and fun/ excitement values were positively related with SNI while no significant relation was found between internal values and SNI. Because the motivational underpinnings of SNI are the desires to identify and comply with the norms of reference groups, the attractiveness or salience of those groups ought to moderate its relation with personal values (Rotter, 1967):

**H2a:** An individual’s susceptibility to interpersonal influence will be more strongly correlated with external values when a reference group is salient in contrast to when no reference group is salient.

**H2b:** An individual’s susceptibility to interpersonal influence will be less strongly correlated with internal values when a reference group is salient in contrast to when no reference group is salient.

With little evidence linking the influence of fun/ excitement values to reference group salience other than some evidence that people like to control their sources of fun (Kahle, 1996), we follow the argument made for internal values:

**H2c:** An individual's susceptibility to interpersonal influence will be less strongly correlated with fun/ excitement values when a reference group is salient in contrast to when no reference group is salient.

Social identity represents that part of an individual's self-concept that derives from his or her knowledge of membership in a social group (or groups) together with the value and emotional significance attached to that membership (Tajfel, 1982). Referring to an individual's subjective representation of the interrelationships among his or her multiple group identities, Roccas and Brewer (2002) introduce the concept of social identity complexity (SIC). SIC reflects the degree of overlap perceived to exist between groups to which a person simultaneously belongs. When the overlap of multiple ingroups is perceived to be high, the individual maintains a relatively simplified identity structure whereby memberships in different groups converge to form a single ingroup identification. When a person acknowledges and accepts that memberships in multiple ingroups are not fully convergent or overlapping, the associated identity structure is both more inclusive and more complex (Roccas & Brewer, 2002). Considering possible relationships to the values an individual holds, an internal value orientation should foster development of social identity complexity because people with an internal orientation take a more active role in structuring their internal self-perceptions. External people, on the other hand, rely more strongly on the influence of others to structure their social identity, thus taking a less active role in constructing the complexity. Therefore:

**H3a:** Social identity complexity will be positively correlated with internal values.

**H3b:** Social identity complexity will be negatively correlated with external values.

With fun/excitement values, the focus of creating the environment is internal, but the structure of self is not the final product of the structuring. Enjoyment of the environment is the goal. Thus, for self structuring activities such as the development of social identity complexity, we may expect people who value fun to behave more externally.

**H3c:** Social identity complexity will be negatively correlated with fun / excitement values.

SIC may further interact with situational factors to effect the salience of specific ingroup identities and consequently relationships between self and others. Roccas and Brewer (2002) argue that socialization experiences and the stable individual differences underlying social identity complexity can produce long-term effects that are likely to determine the chronic accessibility of complex representations of multiple social identities. Above and beyond these chronic variables, situational factors that effect salience of specific ingroup identities and cognitive capacity are also likely to be influenced by social identity complexity (Roccas & Brewer, 2002). Analogous to effects of self-complexity (Dixon & Baumeister, 1991), high SIC thus ought to have a buffering effect by helping individuals to confront threats to the status of any single ingroup:

**H4:** Individuals who have a less complex social identity (representation of the interrelations among their ingroups) will be more susceptible to interpersonal influence.

In the context of reference groups influence on brand choices, marketing researchers increasingly focus on the relationship between consumers and the benefits desired by them from a brand to predict choice (Keller, 2003). Among a number of basic dimensions social benefits



were found to be reliable predictors of brand choice (Sweeney & Soutar, 2001; Vazquez, del Rio & Iglesias, 2002). Similarly, personal values were found to effect what social benefits consumers desired with downstream effects on brand choice (Dibley & Baker, 2001). These empirical results are consistent with the notion that desired brand benefits play a role in choice because they add to the self-expressive and symbolic value of the brand for the buyer, and thus to that buyer's impression management efforts (Aaker, 1999):

**H5a:** Individual susceptibility to normative influence will be positively correlated with the social benefit desired in a brand.

Past research has also shown that social brand benefits are more important in situations in which the outcome is visible to others (Batra, Homer & Kahle, 2001; Bearden & Etzel, 1982) because purchase and consumption are at least partly motivated by a need for public self-presentation and impression management (Aaker, 1999) or for private enhancement of one's self-definition (Belk, 1988). Because some brand benefits pertain to socially visible aspects of a brand (e.g., how classy, trendy or fashionable it is widely perceived to be), the creation and impact of these beliefs ought to be greater in consumption occasions in which a reference group is salient, i.e., where impression management needs are higher (Schmitt & Schultz, 1995):

**H5b:** SNI will have a greater influence on social brand benefits in purchase or consumption situations in which a reference group is salient.

**H5c:** Social brand benefits will have a stronger effect on brand choice in purchase or consumption situations in which a reference group is salient.

## METHOD

Consumer choice of a bottle of wine was selected for examining the postulated relationships. This selection accounts for the recognition that consumer wine brand choice is

formed more on the basis of benefits as opposed to product attributes (Quester & Smart, 1998), utilizes past research on relevant consumption occasions and reference groups for this product (Quester & Smart, 1998), and recognizes the relevance of varieties of reference groups (Lickel, et al., 2000). Matching state demographics, 300 members from a consumer panel in a West coast U.S. state were selected and invited to participate in a survey (92.7% response rate). An electronic survey site was set up where information was collected in one general section and three reference group-specific scenarios with at least 24 hours to pass between scenarios.

*Individual values* were measured using the List of Values (Kahle, 1996). The adequacy of the three-factor (internal values, external values, and fun/ excitement values) measurement model was confirmed through confirmatory factor analysis ( $\chi^2(24) = 90.72, p < .001, GFI = .93, AGFI = .90, RMSEA = .077$ ). Bearden, Netemeyer and Teel's (1989) item battery was employed to measure both the informational and the normative dimensions of an individual's susceptibility to interpersonal influence. With the adequacy of the two-factor model supported through confirmatory factor analysis, only the measure of the normative component was used for further analyses. Measurement of *Social Identity Complexity* followed the procedure outlined by Roccas and Brewer (2002, p.100) and the assessment of *desired brand benefits* also followed past studies (Vazquez, del Rio & Iglesias, 2002; Sweeney & Soutar, 2001). The adequacy of the four-factor model was again established through confirmatory factor analysis ( $\chi^2(137) = 174.64, p < .001, GFI = .96, AGFI = .92, RMSEA = .052$ ). Respondent *choice* of a wine brand was established by respondents double-clicking on one of twelve brand color images.

## RESULTS

ANOVA results (Table 1) show that across individuals SNI significantly increases from “self-consumption”, to “hosting friends”, and “gift for employer”. Results of an additional t-test of variations of SNI within individuals with the self-consumption scenario as a baseline confirm that the observed intrapersonal variation is significantly different, and SNI increased intrapersonal from the “self” to the “host” and “gift” scenario (self – host:  $M_{diff} = -.31$ ,  $df = 228$ ,  $t = 4.69$ ,  $p < .001$ ; self – gift:  $M_{diff} = -.45$ ,  $df = 217$ ,  $t = 5.74$ ,  $p < .001$ ). H1 was accepted.

In order to confirm variation in desired brand benefits and choice of wine brands as a key prerequisite for subsequently testing downstream effects of SNI on desired brand benefits and choice, additional ANOVAs were conducted. Significant differences were found for all four brand benefits and for consumer choice of seven wine brands.

To test H2 through H5, a structural equation approach was employed. Following past procedures (Batra & Homer, 2004; Bearden, Netemeyer & Teel, 1989; Roccas & Brewer, 2002), aggregated measures were utilized for individual values, SNI, SIC, and desired benefits. Table 2 holds the results of the data pooled across scenarios with fit statistics indicating an acceptable fit:  $\chi^2 (148) = 299.96$ ,  $p < .001$ ,  $GFI = .93$ ,  $AGFI = .89$ ,  $RMSEA = .078$ . The results show a positive path from internal values -> SIC, no significant path from external values -> SIC, and a negative path from fun / excitement values -> SIC. Therefore, H3a and H3c were accepted while H3b had to be rejected. H4 was accepted because the corresponding numbers show a significant negative path from SIC -> SNI. With a positive path from SNI -> social benefit H5a was also accepted.

Postulated effects of reference group salience were then tested by estimating the model separately for each scenario (table 2, columns 3, 4 and 5). Fit statistics are acceptable for all three scenarios (“self”:  $\chi^2 (148) = 207.90$ ,  $p < .001$ ,  $GFI = .91$ ,  $AGFI = .87$ ,  $RMSEA = .072$ ; “host”:  $\chi^2 (148) = 228.75$ ,  $p < .001$ ,  $GFI = .90$ ,  $AGFI = .87$ ,  $RMSEA = .071$ ; “gift”:  $\chi^2 (148) = 257.44$ ,  $p <$

.001, *GFI* = .90, *AGFI* = .87, *RMSEA* = .081).

Compared to the “self” scenario, results indicate a stronger effect path from external values -> SNI for the “host” scenario but a weaker effect for the “gift” scenario, leading to a rejection of H2a. Path effects from internal values -> SNI were weaker for both the “host” and the “gift” scenario compared to the “self” scenario. H2b was accepted. Significant path effects from fun/ excitement values -> SNI were found for the “self” scenario and the “gift” scenario but not for the “hosting friends” scenario. H2c was accepted.

Results further show stronger path effects from SNI -> social benefit for the “host” and “gift” than for the “self” scenario, leading to an acceptance of H5b. Compared to the “self” scenario (2 brands), social benefits were significant predictors more frequently in both, the “host” (3 brands) and the “gift” scenario (5 brands). H5c was accepted.

## DISCUSSION

The results of our study suggest that individuals vary in their susceptibility to normative influence depending on reference group salience, personal values and social identity. As predicted, individual susceptibility to normative influence was greater in scenarios in which reference groups were salient. As a consequence, people sought different brand benefits, particularly more social benefit. In turn, desired brand benefits influenced their brand choice.

These findings are important for several reasons. First, they provide a new explanation to supplement earlier accounts of variation in individual behavior across situations (Batra, Homer & Kahle, 2001; Bearden & Etzel, 1982). Our results demonstrate that when consumers know what reference group will observe their behavior their susceptibility will adjust depending on this group’s salience. This finding is in line with past suggestions that SNI is a consumer state rather

than a trait (e.g., McGuire, 1968; Terry & Hogg, 1996; White, Terry & Hogg, 2002), with far-reaching implications for past studies treating SNI as an individual difference variable. Because the perceived norms of behaviorally relevant reference groups influence behavior only for individuals who identify strongly with this group, more attention needs to be given to the social context in which past studies were conducted. By demonstrating that consumers vary in their susceptibility and that this variation consequently affects the brand benefits they seek and the brands they choose, past results were confirmed suggesting that one-time assessments of SNI may not be powerful enough predictors for effects of higher impression management needs (Batra & Homer, 2004). By confirming that the salience of different reference groups induces variation in impression-management concerns, leading individuals to alter their choices, respective past suggestions could also be confirmed (Aaker, 1999; Ratner & Kahn, 2002). In addition individual social identity was found to be a useful concept for explaining the brand benefits desired by consumers. The social identity complexity construct introduced by Roccas and Brewer (2002) was found to be particularly suitable.

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Table 1

*Anova results (N=346)*

Variable	Consumption occasion			<i>F</i>	<i>p</i> <
	Self	Hosting friends	Gift for employer		
SNI	2.46 <sup>ab</sup>	2.79 <sup>a</sup>	2.95 <sup>b</sup>	8.98	.001
<i>Desired Brand Benefits</i>					
Quality	5.52 <sup>a</sup>	5.70 <sup>b</sup>	6.03 <sup>ab</sup>	16.36	.001
Price	5.43 <sup>a</sup>	5.25 <sup>b</sup>	4.46 <sup>ab</sup>	43.05	.001
Social	2.50 <sup>ab</sup>	3.74 <sup>ac</sup>	4.44 <sup>bc</sup>	115.10	.001
Emotional	5.29 <sup>a</sup>	5.14 <sup>b</sup>	4.73 <sup>ab</sup>	13.24	.001
<i>Wine Brand Choice</i>					
Chateauneuf-du Pape	.02 <sup>a</sup>	.02 <sup>b</sup>	.23 <sup>ab</sup>	91.85	.001
Robert Mondavi	.07 <sup>a</sup>	.14 <sup>b</sup>	.33 <sup>ab</sup>	33.27	.001
Columbia Crest	.13 <sup>ab</sup>	.04 <sup>a</sup>	.02 <sup>b</sup>	15.66	.001
Rosemount	.20 <sup>a</sup>	.16 <sup>b</sup>	.06 <sup>ab</sup>	11.71	.001
Errazuriz	.06 <sup>a</sup>	.07 <sup>b</sup>	.00 <sup>ab</sup>	6.99	.001
Chateau St. Michelle	.19	.23 <sup>a</sup>	.12 <sup>a</sup>	5.67	.004
Yellow Tail	.04 <sup>a</sup>	.02	.00 <sup>a</sup>	4.32	.014
Mouton Lafitte	.03	.02	.00	1.82	.163
King Estate	.10	.15	.12	1.65	.192
Kendall Jackson	.08	.05	.05	.818	.442
Ecco Domani	.06	.08	.04	1.78	.169
Bridgeview	.03	.02	.01	.545	.580

Table 2

*Observed effects (all coefficients significant with  $p < .05$ )*

Estimated Path	Pooled	Self	Host	Gift
External values -> SIC	-	-	-	-
Internal values -> SIC	.304	.307	.309	.295
Fun values -> SIC	-.178	-.164	-.183	-.191
External values -> SNI	.273	.272	.294	.264
Internal values -> SNI	-.293	-.402	-.273	-.219
Fun values -> SNI	-	.129	-	-.211
SIC -> SNI	-.116	-.110	-.144	-.099
SIC -> Quality	.123	-	.176	.248
SIC -> Price/ value-for-money	.073	-	.147	-
SIC -> Social benefit	-	-	-	-
SIC -> Emotional Benefit	.124	.438	.174	.133
SNI -> Quality	-	-.170	-.136	-
SNI -> Price/ value-for money	-.107	-	-	-
SNI -> Social Benefit	.500	.442	.517	.500
SNI -> Emotional Benefit	-	-	-	.121
External values -> Quality	-	-	.164	.105
External values -> Price/ value for money	.215	.217	.197	.236
External values -> Social Benefit	-	-	-	-
External values -> Emotional Benefit	-.119	-	-	-.212
Internal values -> Quality	-	-	-	-
Internal values -> Price/ value for money	-.144	-.133	-	-.255
Internal values -> Social Benefit	-	-.164	-.193	-
Internal values -> Emotional Benefit	-	-	-.126	.123
Fun values -> Quality	-	.134	-	-
Fun values -> Price/ value for money	-	.129	-	.157
Fun values -> Social Benefit	-	.141	-	-
Fun values -> Emotional Benefit	.210	.329	.122	.161
Chateauf-neuf-du Pape *	.12-.10+.18-.08	.12+.0+.0-.10	.0+.0+.08-.09	.0+.0+.13+.0
Mondavi *	.15-.32+.0+.0	.21-.31+.0+.0	.0-.30+.0+.0	.0-.27-.11+.0
King Estate *	-.10+.0+.07+.07	.0-.17+.0+.0	-	-.22+.15+.0+.0
Kendall Jackson *	-.07+.15+.08-.12	.0+.17+.10-.23	-.11+.11+.15+.0	.0+.12+.0-.13
Yellow Tail *	.0+.21-.06-.19	.0+.20+.0-.25	.10+.25+.0-.20	.0+.17+.0-.15
Columbia Crest *	.0+.17-.13+.0	-.13+.21-.10+.10	-	.15+.17-.17+.0
Ste. Michelle *	.0+.0+.0+.09	.0+.0+.0+.15	.0+.17-.08+.0	-
Errazuriz *	-	.0+.10+.0+.0	-	-.13-.17+.0+.19
Ecco Domani *	-.09+.08+.0+.0	-.14+.0+.0+.0	.0+.0+.0-.13	.0+.12+.11-.09
Mouton *	.0+.08+.0+.0	-	-	.10+.11-.12-.24
Rosemount *	.0+.0+.0+.08	-	-	.0+.08+.0+.0
Bridgeview *	.0+.0-.07+.0	-	.0+.0+.0-.08	.0-.09+.0+.0

## **Session 4C (Illusions Dance Club)**

System Sales: Managing Synergy Through Multiple Products

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**SYSTEM SALES: MANAGING SYNERGY THROUGH  
MULTIPLE PRODUCTS**

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## ABSTRACT

Firms are increasingly selling product systems. A product system consists of multiple related products that, when used together, produce superior results than when they are used individually. This research is motivated by consumer product industry experience where “system sales” is an underlying theme of marketing efforts to satisfy consumers’ multi-component needs and ultimately increase cross-category sales. For example, when marketers such as Procter & Gamble (P&G) advertise a “hair care system,” the joint usage of a shampoo, conditioner, and styling products generates a perceived synergy among the products. This perceived synergy ultimately influences consumers to expect increased results by the use of an entire system of products versus one individual product. The purpose of this research is to understand what conditions influence consumers to buy product systems, rather than purchase an individual product separately. Specifically, this research identifies key characteristics of these product systems, including type of product attributes, which drive purchases. In study 1, we consider same versus mixed brand systems and confirm that when synergy is salient in a product system, consumers are more likely to purchase a same brand system. In Study 2, we confirm the presence of a driver product within a same brand system. We argue that whether the product attributes are shared or unique across the products in a system affects preferences for a system and specifically, the driver product. We conclude with proposed future studies.

## SYSTEM SALES: MANAGING SYNERGY THROUGH MULTIPLE PRODUCTS

This research is motivated by the recent shift in marketing towards “system sales,” or an emphasis on selling product systems. Marketers such as P&G strive to increase profitability by selling multiple related products as a “system.” Kotler and Keller (2006) define product systems as a “group of diverse but related items that function in a compatible manner” (p. 381). These products are systematically consumed with an expectation of superior results compared to the results of an individual product. For example, skin care systems are popularized by a three-step process which includes three essential products, a cleanser, toner, and moisturizer, to achieve superior skin care. By using the products together, consumers believe that they are able to reap the benefits of the synergy created by these compatible products versus using each product separately.

Consumers often create their own systems of products, spanning multiple categories, based on their individual needs (Kim et al. 2000). However, most prior research has concentrated on single category purchase behavior (e.g. Harlam and Lodish 1995) with few exceptions (e.g. Russell and Peterson 2000). Although there has been some attention on product complements (e.g. Shocker et al 2004) and product substitutes (e.g. Lattin and McAlister 1985), the unanswered question remains - how product systems, as an alternative to a single category purchase, fulfill a consumer need. Shocker et al (2004) begin to look at how complementary products satisfy consumer needs, but fail to consider how consumers perceive synergy among multiple products. For instance, not only does each product perform its specified role (e.g. cleanser cleans, lotion moisturizers), but *when used together*, the products provide a benefit that could not be achieved by using the product in isolation. We first consider the role of branding in

preferences for product systems. For example, product systems can consist of mixed or same brand products. Next, we investigate the presence of a driver product in a system. Similar to a driver brand in a brand portfolio (e.g. Aaker 1996), a driver product is one which encompasses the value proposition that is central to the purchase decision and usage experience of a product system. In addition, the role of product attributes (shared vs. unique) has not been considered in the context of product systems. We examine preferences for a product system and driver products based on whether the product attributes are unique or shared among the products in a system.

This study addresses three key research questions: 1) Under what conditions do consumers buy same versus mixed brand system purchases? 2) What impact does a driver product have on preferences for product systems? 3) How do product attributes, shared or unique across the products, influence purchase decisions of product systems or driver products?

## CONCEPTUAL DEVELOPMENT

### Systems

A system is an ordered manner or process for obtaining an objective. Systems consist of an orderliness by virtue of being methodical and well-organized (von Bertalanffy 1968). In his research on general systems theory, von Bertalanffy (1968) argues that systems have a sense of order, indicating that each part has a specific function that must be performed in conjunction with other members. The goal of a system is to achieve a balance of the individuality of each member with the togetherness of the system as a whole (Prest and Protinsky 1993). Likewise, Aaker (1996) suggests that the goal of a brand system is to exploit commonalities to generate synergy. Thus, a manufacturer may pinpoint distinguishable characteristics of each brand (e.g. teeth whitening) to generate synergy. In a consumer product context, systems also contain

products that are used methodically by consumers based on each specific product function. The “togetherness” or “synergy” perceived by consumers of these systems ultimately contributes to perceived additional benefits (e.g. superior teeth whitening).

Systems have been studied in the industrial product field (Wilson et al. 1990). For example, “turnkey” systems may contain proprietary features that are included in the components. Moreover, “turnkey” systems typically consist of components that are designed to take into account the strengths and weaknesses of the other components (Wilson et al. 1990). Similarly, this research considers same brand and mixed brand systems. A same brand system may be perceived to deliver increased performance based on a proprietary technology. The decision to buy same or mixed brand systems is especially relevant to retailers. For example, should retailers advertise, promote, or shelve same brand systems together?

The question of how the study of product systems differs from other research must be addressed. There are several related areas of research that discuss similar concepts, such as goal-derived categories (Barsalou 1983), brand extensions (Aaker 1996), product bundles (Stremersch and Tellis 2002), or categorization (Rosch 1978). For example, prior research on product bundles has focused exclusively on the price that consumers are willing to pay for the bundle of products (e.g. Stremersch and Tellis 2002). However, unlike product bundles, this research investigates whether consumers *choose* to buy all products together versus considering a pre-assembled bundle. Indeed, consumers consider attributes beyond price (e.g. aesthetic attributes) when purchasing systems. Although systems can be sold as a bundle, bundles are not necessarily comprised of a system of products. For example, a bundle may contain a “bonus” product that may not be perceived to enhance overall performance. Brand extensions fail to consider how the products, together, are perceived to generate a synergy that cannot be captured when each



product is considered individually. Furthermore, categorization literature suggests that consumers prefer to group products together based on similarity (Tversky 1977). For instance, products in a toothbrush *category* are not equivalent to those in an oral care *system*. Through multiple empirical studies, we predict that consumers will prefer same brand systems to mixed brand systems based on perceived synergy created by proprietary technology. We then explore these same brand systems' product attributes. In particular, we consider whether shared or unique aesthetic product attributes influence preferences for a product system or more specifically, a driver product. First, we consider the role of perceived synergy in product systems.

## Synergy

Synergy comes from the Greek word “synergos,” which literally means to “co-operate.” Corning and Corning (1983) refer to synergy as “combined effects – the effects produced by the cooperative actions of two or more parts, elements, or individuals” (p. 12). Similarly, Aaker (1996, 2004) suggests that synergy can be generated in brand systems when each brand fulfills a unique and important role and contributes to the overall success of the system. In marketing, synergy plays a significant role among communication tools for integrated marketing communications. Chang and Thorson (2004) argue that television-web synergies attract more attention based on the unique features absent in the counterpart. Surprisingly, we have not considered how synergy may be created among products to create a system. Synergy may in fact highlight relational features, especially in same brand systems, making the perceived relationship among products more salient (Felcher et al. 2001). Von Bertalanffy (1977) argues that synergy is most important in closed systems where components are not interchangeable. In a marketing context, a closed system is comparable to a same brand (or manufacturer) system where the

individual products are not interchangeable. Indeed, when consumers perceive the products to possess proprietary features as a result of being made by the same brand, perceived synergy among the products is most relevant. In contrast, an open system is more dynamic and capable of adjusting to changes in the environment (Bertalanffy 1968; Cox and Paley 1997; Galvin and Brommel 1991). An open system resembles that of a mixed brand system where products are interchangeable. Based on the perception that same brand products have a proprietary technology that enables them to work better together, we predict that when synergy is salient, consumers are more likely to purchase a same brand product system. In the absence of synergy, consumers attempt to balance out the strengths and weaknesses of the products with different brands (Dhar and Simonson 1999). Therefore,

H1: The likelihood to purchase a same brand system increases when synergy among the products is salient compared to when the synergy is not salient.

## STUDY 1

Study 1 was conducted to test the relationship between perceived synergy and consumer preferences for a product system (H1). Three hundred and forty-nine undergraduate business majors at a major Southwestern university participated in a study for extra credit. A 2 cell (synergy vs. no synergy) between-subject design was used. Subjects evaluated three hypothetical-brand computer and digital camera systems, with each system consisting of four components. The computer system included a monitor, hard drive, keyboard, and mouse. The digital camera system included a digital camera, memory card, photo printer, and photo paper. Synergy was manipulated by a statement on performance: "Performance of the system has been shown to increase by 10% when all the individual components of one brand system are used

together.” The no synergy condition did not include this statement. Subjects were asked to put an “X” next to each product they were willing to buy for each system. If each product was selected for at least one brand system (e.g. all 4 products for one brand system), the response was recorded as a “same brand system”. If each type of product was selected from more than one brand, a “mixed brand system” was recorded. If the subject did not select at least one of each product, “no system” was recorded.

Logistic regression was used to test hypotheses 1. As predicted, when synergy was salient, likelihood to buy a same brand computer system increased ( $\chi^2[2]=15.79; p<.01$ ),  $M=50.6\%$  (same brand) vs.  $25.7\%$  (mixed brand). Similar results were obtained for digital cameras with an increased likelihood to buy a same brand system when synergy was salient ( $\chi^2[2]=26.29, p<.01$ ,  $M=50.3\%$  (same brand) vs.  $32.2\%$  (mixed brand). Study 1 results support the prediction (H1) that when synergy is salient in product systems, consumers prefer buying same brand systems.

#### KEY COMPONENTS OF SYNERGY: DRIVER PRODUCTS AND PRODUCT ATTRIBUTES

Study 1 examines the relationship between perceived synergy and preferences for a same or mixed brand system. We confirm that synergy is most important in same brand systems. Thus, in study 2 we examine the role of driver products in same brand systems. Specifically, we consider whether attributes are shared or unique among products is a contributing factor for preferences for a system and more specifically, a driver product.

#### Prototypes and Driver Products

Aaker (1996) describes a driver brand as one that drives the purchase decision; its identity represents what the consumer primarily expects to receive from the purchase. The driver

brand embodies the value proposition that is central to the purchase decision and usage experience, often a member of a brand portfolio. Similarly, categories contain members that may be more indicative of their respective group (Mervis and Rosch 1981). A category prototype is a member that possesses the set of features commonly associated with members of the category (e.g. Cohen and Basu 1987) and often reflect the redundancy structure of the category as a whole (Rosch 1978). Most prototypical members are the first and most frequently purchased items. In product systems, we call these prototype members *driver products*. These products drive the purchases of the system and are considered the most important in delivering the overall desired benefit. A product system contains a driver product which contains the features commonly associated with the specific usage context. For example, shampoo is the driver product for a hair care system. Shampoo is most commonly purchased among the other system members (conditioner, gel, hairspray). Thus, the other products are evaluated in relation to this prototype (shampoo) in how relevant the product is in the usage context and whether it contains similar aesthetic attributes. The driver product is considered the most important product within the system in attaining the desired benefit. Thus, preferences for driver products as members of product systems is a crucial component of this study.

We predict that when consumers only need a driver product (i.e. shampoo or toothpaste), they will prefer to purchase a product with shared (vs. unique) aesthetic product attributes from a system. The need for one individual product shifts focus to the prototype, or driver product, for the system. The shared aesthetic attribute among the products highlights that each product contains shared attributes to achieve a specific benefit (e.g. whitening). Conversely, when each product has a unique aesthetic attribute, consumers now must consider how each product works together to achieve the desired benefit. Thus, if a consumer only needs a driver product (e.g.

shampoo), preference for a product with similar aesthetic benefits (e.g. volumizing) reduces any losses from the other product attributes (e.g. volumizing + moisturizing + curl-enhancing = healthy hair). Veryzer Jr. and Hutchinson (1998) suggest that consumers may seek “unity” where all the elements look as though they belong together. The visual “matching” as a means of achieving unity requires a high level of relational coherence. The relationship, or perceived synergy, is not upheld unless each relevant part is appropriately designed or matched (Veryzer Jr. and Hutchinson 1998). A specific attribute, such as whitening for a dental care system, may in fact create a visual “matching” for consumers. This line of reasoning leads to the following hypotheses,

H2: When consumers only need a driver product, preference for a driver product that shares aesthetic attributes with other products in a system increases compared to when products contain unique aesthetic attributes.

H3: When consumers only need a secondary product, preference for the secondary product that shares aesthetic attributes with other products in a system increases compared to when the products contain unique aesthetic attributes.

However, when consumers need *all* products in a system (e.g. shampoo, conditioner, styling product), we predict that preference for a system containing products with unique aesthetic attributes will increase. In this instance, consumers have the opportunity to buy all the products (vs. only needing one driver product) and are more likely to process how all the products effectively work together to achieve the desired benefit. For example, for a oral care

system, consumers may now consider how germ-fighting, whitening ability, and breath freshening *all* contribute to a “healthy smile.” Therefore, we predict,

H4: When consumers need all products in a system, likelihood to buy the entire system increases when each product has a unique aesthetic attribute compared to when each product shares an aesthetic attribute.

## STUDY 2

An empirical study was conducted to test hypotheses 2-4. An initial pre-test confirmed the presence of driver products for three product systems, skin care, hair care, and dental care (see Table 1). Thirty-five undergraduate marketing majors at a major Southwestern university participated in a study for extra credit. Subjects were asked to provide importance ratings for three products across three systems on a scale from 1-7. As expected, a driver product was identified in each of the three systems,  $F(2,102)=20.87, p<.01$ . In addition, pairwise comparisons revealed that a secondary product exists in a system as rated second most important in obtaining healthy skin, hair, or smile ( $t=3.54, p=.001$  and  $t=2.91, p=.004$ ).

A 3 (need all 3 products vs. need driver only vs. need secondary only) x 2 (unique vs. shared attribute) x 3 (oral care, skin care, hair care) mixed design was used. The products in each system are functionally unique such as toothbrush, toothpaste, and mouthwash. Aesthetic attributes are operationalized as those that are intangible, such as whitening (oral care), deep cleaning (skin care), or moisturizing (hair care). Products within a system with unique aesthetic attributes each contain a different attribute. For example, in the unique attribute skin care system, the products included a deep clean cleanser, moisturizing toner, and shine control moisturizer. In the shared attribute conditions, each product contains the same attribute (e.g. deep

clean cleanser, deep clean toner, etc). Subjects are presented with three product systems, dental care, hair care, and skin care, each consisting of three products. In conditions 1 and 2, subjects are told that they need all three products: “You have determined that you need all three products.” In conditions 3 and 4, subjects are told that they only need the driver product: “You have determined that you only need cleanser” (for skin care conditions). In conditions 5 and 6, subjects are told that they only need a secondary product: “You have determined that you only need toner” (for skin care conditions). The subjects indicate their likelihood to buy the driver product and likelihood to buy all three products on a scale from 1-7 (1= not at all likely to 7=very likely).

Analysis of variance was used to test H2-H4. As predicted, likelihood to buy the driver/secondary product increases when the driver/secondary product was part of system of shared attributes compared to a system of unique attributes (H2 and H3),  $F(5,957)=21.21$ ,  $p=.014$ . Pairwise comparisons reveal significant differences for both the driver product (H2) ( $t=2.46$ ,  $p=.014$ ) and the secondary product (H3) ( $t=4.29$ ,  $p<.01$ ).

H4 was also supported. Overall, the likelihood to buy all three products from a system consisting of products with unique attributes increases compared to a system of products with shared attributes,  $F(5,957)=8.387$ ,  $p<.01$ . Pairwise comparisons reveal that when subjects were told that they need all three products, likelihood to buy all three products from a system containing products with unique, compared to shared, aesthetic attributes increases ( $t=-2.36$ ,  $p=0.18$ ).

## FUTURE RESEARCH

Based on the results from studies 1 and 2, we plan to conduct study 3 based on a further examination of the mediating effects of perceived synergy. In addition, we will explore the level of product necessity, the absence of a driver product, and individual consumer differences.



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Table 1

<b>System</b>	<b>Driver Product</b>	<b>Secondary Product</b>
Skin Care	Cleanser	Toner
Hair Care	Shampoo	Conditioner
Oral Care	Toothpaste	Toothbrush

The Polarization Effect of Perceived Entitativity on Family Brand Evaluations

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**THE POLARIZATION EFFECT OF PERCEIVED ENTITATIVITY  
ON FAMILY BRAND EVALUATIONS**

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# THE POLARIZATION EFFECT OF PERCEIVED ENTITATIVITY ON FAMILY BRAND EVALUATIONS

## EXTENDED ABSTRACT

This research examines the polarization effect of perceived entitativity on family brand evaluations when extension information is *lowly* accessible. Results indicate that both high and low entitative family brands were enhanced and diluted by positive and negative extension information respectively. However, as perceived entitativity induces polarization effect, a high (vs. low) entitative family brand was more significantly diluted by negative (dissimilar) extension information, whereas a low (vs. high) entitative family brand was more significantly enhanced by positive extension information.

### **Theoretical Background**

Entitativity is initially defined as the degree to which a social aggregate is perceived as “being entitative” or “having the nature of an entity” (Campbell 1958, p. 17). A high entitative group is a collection of persons perceived as being bonded together in a coherent unit. Crawford and colleagues (2002) proposes the model of group-level trait transference (GLTT) to discuss the influence of individual members on the group and other group members. In the GLTT model, perceived entitativity serves as a pre-determinant of the following three-stage information processing of trait abstraction (or trait inference), stereotyping (or group impression formation), and trait generalization (or trait transference).

At the first stage, motivated perceivers engage in on-line processing for both high and low entitative groups, where traits are abstracted from, and associated with, the behaviors of individual members. However, as the underlying essences of stereotype are not expected for low entitative groups, less effort is made to further process the abstracted traits for the next step of

stereotyping. The processing is more individuated or piecemeal represented (Brewer 1988; Fiske and Neuberg 1990). In contrast, as high entitative groups suggest the underlying essences of stereotype, the abstracted traits are further processed to form or revise group impression (stage 2) and transfer across group members (stage 3). For high entitative groups, the first stage processing of trait inference becomes a by-pass for the final stage processing of trait transference. However, no further processing is made for low entitative groups and the processing stops at the first stage of trait inference.

Similar to social groups, the attribute transference across brand extensions is more likely to occur for high entitative family brands and induces polarization effect on family brand evaluations. As perceivers make more extreme judgments and form more disproportional polarized impressions on high entitative groups (Thakkar 2001), given the same quality of brand extensions, high entitative family brands shall be more favorably evaluated than low entitative family brands. Therefore, high entitative family brands are more favorably evaluated than low entitative family brands (H1).

As a high entitative family brand is more favorably evaluated with higher quality, the perceived quality difference between high and low entitative family brands may lead to different expectation on the quality of new brand extension. Based on cue-diagnostics model (Skowronski and Carlston 1987), the perceived probability that a good quality family brand launches a good-quality new brand extension is significantly higher than that of a moderate or low quality family brand. In contrast, the probability that a moderate or low quality family brand launches a low-quality new brand extension is significantly higher than that of a high quality family brand. Under the circumstances, a good quality brand extension is relatively more unexpected for a low (vs. high) quality family brand and is more diagnostic for the evaluation of



low quality family brand. However, a bad quality brand extension is relatively more unexpected for a high (vs. low) quality family brand and is more diagnostic for the evaluation of high quality family brand. Therefore, the diagnostic cue of positive and negative extension information is more influential on the evaluations of moderate/low and high quality family brand respectively. A moderate/low quality family brand is more significantly enhanced by positive extension information, whereas a good quality family brand is more significantly diluted by negative extension information. Hence, high (vs. low) entitative family brands are more significantly diluted by negative extension information (H2). Moreover, low (vs. high) entitative family brands are more significantly enhanced by positive extension information (H3).

## **Experiments and Results**

Two hundred and forty three undergraduates were randomly assigned to conditions in a 2 (information valence: positive vs. negative) x 2 (categorical similarity: similar vs. dissimilar) x 2 (perceived entitativity: high vs. low) between-subjects factorial design under *low* accessibility situations. Participants were asked to read the semantic information and evaluated the entitativity and the quality of family brands, followed by the information about a newly launched extension. Again, they were asked to read and evaluate the information of the brand extension with the identical measures of family brand attitudes. Then, they were asked to complete two intervening tasks followed by re-evaluating family brands.

In conclusion, while both high and low entitative family brands were diluted, negative information of *dissimilar* brand extensions was more influential on the evaluation of high (vs. low) entitative family brand and induced more significant dilution effect. Therefore, hypothesis 2 (H2) was partially supported. Moreover, while both high and low entitative family brands were

enhanced, positive extension information was more influential on the evaluation of low (vs. high) entitative family brand and induced more significant enhancement effect. Therefore, hypothesis 3 (H3) was supported.

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How Does Brand Name—Logo Coherence Affect Brand Attitudes? An Investigation of Moderating Effects

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HOW DOES BRAND NAME—LOGO COHERENCE AFFECT BRAND ATTITUDES?  
AN INVESTIGATION OF MODERATING EFFECTS

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## Abstract

This research investigates the impact of brand name-logo coherence on consumer attitudes and the potential moderators of this effect. Experiment 1 investigates the impact of brand name-logo coherence on brand attitudes and consumer-level variables that may moderate this relationship (preference for consistency and self-brand connections). Experiment 2 assesses the impact of another moderator, perceived initial coherence between brand name and logo, on the relation between brand name-logo coherence and brand attitudes. Our two studies represent a step toward a comprehensive framework providing a better understanding of how coherent brand elements contribute to positive brand attitudes.

# HOW DOES BRAND NAME—LOGO COHERENCE AFFECT BRAND ATTITUDES?

## AN INVESTIGATION OF MODERATING EFFECTS

Brand names and logos are common means to communicate brand identity to consumers (Aaker, 1996; Henderson & Cote, 1998). Researchers have investigated different ways to increase the positive impact of brand names and logos on brand attitudes (Henderson & Cote, 1998; Janiszewski & Meyvis, 2001; Lowrey, Shrum, & Dubitsky, 2003; Sen, 1998; Yorkston & Menon, 2004). However, we still know relatively little about how the coherence between a brand name and a brand logo might affect brand attitudes, even though this relation has been recognized as an important research topic (Henderson & Cote, 1998; Henderson, Giese, & Cote, 2004; Klink, 2003). If the brand's different elements are incoherent, incongruity may occur at the brand association level, triggering for brand identity (Keller, 1993).

We investigate the impact of brand name-logo coherence on consumer attitudes toward brand actions, and the potential moderators of this effect. Our two studies represent a step toward a conceptual framework that may provide a better understanding of the role of coherent brand elements and how this coherence may contribute to positive brand attitudes.

The primary theoretical frameworks we rely on are consumer-based brand equity (Keller, 1993), preference for consistency (PFC; Cialdini, Trost, & Newsom, 1995) and self-brand connections (SBC; Escalas, 2004). Our main proposition is that consumers do respond favorably to brand actions that feature coherent logos with the brand, but this positive response is dependent on several boundary conditions. Specifically, we propose that:

H1: Attitudes toward a brand action that increases coherence between brand name and logo will be more positive than attitudes toward a brand action that decreases coherence between brand name and logo.

H2: Consumers with a high PFC will have more positive attitudes toward a brand action that increases coherence between brand name and logo than consumers with a low PFC.

H3: If SBC is strong (vs. weak), consumers with a high PFC will have more positive attitudes toward a brand action that increases coherence between brand name and logo than consumers with a low PFC.

H4: If perceived initial coherence between brand name and logo is low (vs. high), consumers with a high PFC will have more positive attitudes toward a brand action that increases coherence between brand name and logo than consumers with a low PFC.

A first experiment supported hypotheses 1 and 3 but not 2. Results suggest that the coherence between brand name and logo does positively affect brand attitudes and that this relationship is moderated by individual-level variables. An interesting aspect of our findings is that PFC alone did not moderate the link between a brand action and consumer attitudes toward this brand action. Instead, its effect was conditional on whether or not the consumer had a strong SBC with the brand. Results from a second experiment support hypothesis 4 and suggest that the impact of PFC on attitudes toward brand actions is conditional on perceived initial coherence between brand name and logo.

Our first two experiments enhance our understanding in an emerging new stream of research on brand name-logo relationships (Klink, 2003; Pieters & Wedel, 2004). Both studies established a strong effect of brand-logo coherence on consumer attitudes toward brand actions. Our results suggest that consumers indeed prefer brand logos that are coherent with the brand. Preference for consistency as a moderator did not have an effect on its own, but was conditional on either self-brand connection strength or perceived initial coherence between brand and logo. On a practical side, these findings imply that marketers may indeed improve brand attitudes by



choosing coherent logos for their brands. In the process of developing relevant brand actions, marketers should also be aware of individual differences between consumers as well as of consumer perceptions regarding the initial coherence between brands and logos.

Our findings are suggestive of the conclusion that other potential variables may extend the model and lead to a more complete picture of how brand-logo coherence shapes brand attitudes. As a next step, a series of experiments are projected aiming at testing the effect of additional moderators. These may include other factors such as logo stability over time and the social visibility of the brand. Specifically, we expect that brand name–logo congruence will be particularly important for brands that frequently (vs. rarely) change logos over time; and for brands that are highly (vs. weakly) visible in social interactions.

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Brands As Means For Achieving Consumer Goals--A New Perspective on  
Branding and Memory-based Choice  
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## **ABSTRACT**

It is currently believed that most, if not all, of consumer behavior is goal-directed (Huffman, Ratneshwar, and Mick 2000; Ratneshwar et al. 2001). Little research, however, has examined exactly how goals influence which brands are chosen. In this paper, we examine whether 1) some brands are associated with consumer goals as goal-attainment means and 2) when a goal is activated, these brands-as-means are more likely to be chosen. With respect to the first issue, we examine whether the brands associated with goals contain the following three properties, which should be observed based on the *Goal Systems Theory*. These three properties are a). when a goal is activated, the brands-as-means are also activated, b). consumers are strongly committed to own these brands and c). the affect associated with the attainment of a goal is transferred to the brands-as-means (experiments 1-3). With respect to the second issue, we examine whether the activation of goals activates only the brands-as-means or whether it also activates the relevant product category. If it also activates a relevant product category (experiment 4) then the most accessible brands in the product category may also be retrieved and considered. Finally, we test whether brands-as-means are more likely to be chosen (experiment 5). The results of all five studies provide strong support for the two issues. Interestingly, we also find that these two issues hold for both high-level and low-level goals. Our paper offers a new perspective on branding and memory-based choice.

It is currently believed that that most, if not all, of human behavior is goal directed (Bargh and Chartrand 1999; Aarts and Dijksterhuis 2000). For example, in consumer research, consumer goals have been found to influence what information we attend to (Huffman and Houston 1993), what product category we considered (Ratneshwar et al. 2001), and what choices we make (Bargh 2002; Garbarino and Johnson 2001). According to *goal systems theory* (Kruglanski et al. 2002; Shah, Friedman and Kruglanski 2002), goals and means to attain them are linked together as goal concepts. These goal concepts have both cognitive and motivational properties. First, they have cognitive properties in that goals can be activated in memory by priming and the activation of a particular goal also activates the means associated with it. Second, they have motivational properties. When a goal is activated, individuals are committed to using the means to achieve the goal, and the positive affect associated with achieving “the goal” is transferred to the means. The enhanced personal commitment and positive affect towards the means further motivate individuals to engage in the means.

Recent research has found that both activities (Shah and Kruglanski 2003) and individuals (Kruglanski et al. 2002; Fishbach, Shah and Kruglanski 2004) can be means within goal systems and they have both cognitive and motivational properties. However, although the importance of goals is well acknowledged in consumer behavior, to the best of our knowledge, no one has examined whether brands can be associated with consumer goals as means within goal systems and the implication of this on the memory-based brand choice. This paper fills this void. In this paper, we examine 1). whether some brands are associated with consumer goals as goal attainment means by testing both the cognitive and motivational properties discussed previously and 2). whether the brands-as-means are more likely to be chosen. To test this, we

rule out an alternative model where a relevant product category is always activated first and the accessible brands are screened (Nedungadi 1990).

## **HIGH-LEVEL AND LOW-LEVEL GOALS**

It is generally believed that consumers have hierarchically structured goals with high-level goals representing the consumers' *being* side of life and low-level goals representing their *having* side of life (Bagozzi and Dholakia 1999; Huffman et al. 2000)<sup>1</sup>. Although the high-level goals and the low-level goals differ in terms of the abstractness and temporal aspects, we believe that when a brand is associated with a goal as goal attainment means, similar effects should be observed regardless of whether the goal is at the high-level or the low-level in the goal hierarchy. In all five experiments, we tested our predictions with both high-level and low-level goals and except for experiment 3, we did not find any differences in any of the studies. Therefore, we do not specifically report this for each experiment.

## **OVERVIEW OF STUDIES**

We report the results of five studies that test the predictions. The first three studies test the first issue, and the last two studies test the second issue. Experiment 1 examines whether the activation of a goal automatically activates the brand-as-means. Experiments 2 and 3 test whether the activation of a goal increases personal commitment and explicit attitudes toward the brand-as-means and whether the type of affect from the goal attainment for these goals transfers to these brands. Finally, experiments 4 and 5 examine whether brands-as-means are more likely to be chosen and how this may occur. Experiment 4 examines whether the activation of a goal



activates only the brand-as-means or whether it also activates the relevant product category. If the latter should occur, then brand choice may also be influenced by the most accessible brands in the product category as suggested by Nedungadi (1990). Finally, experiment 5 tests whether the brand-as-means is more likely to be chosen in both high and low motivation and opportunity conditions in a memory-based scenario.

## OVERVIEW OF METHODOLOGIES

All five experiments had two phases. In the first or *Goal and Brand Generation* phase, the participants listed a high-level (or a low-level goal) and the brand that they would use as a means to achieving the goal (i.e. *brands-as-means*). The participants were then asked to identify another brand from the same product category that others might use to achieve the same goal. Since this brand was not the one that the participants would use themselves, it serves as a *control brand*. A 40 minute filler task then followed to reduce participants' suspicion of connections between tasks and also reduce the temporarily enhanced accessibility of the goals and the brands. During the filler task, the experimenter went to a room next door to modify the computer program which was used in the second phase with each participant's own goals, the brands-as-means and the control brands.

The second phase is the *Test Phase* where participants were asked to respond to the dependent variables after their own goal or a control word (i.e. house, planet) is primed. In four (except experiment 3) of the five experiments, either the goal or the control word was primed on each trial. The dependent variables in the test phase were: response latencies (experiment 1 and experiment 4); commitment and explicit attitudes (experiment 2); the type of affect (experiment 3) and choice (experiment 5).

All of the participants in the experiments were undergraduate business students at a large North American university. They received course credit for their participation.

### **EXPERIMENT 1: GOAL ACTIVATES BRAND-AS-MEANS**

The purpose of experiment 1 is to examine whether the activation of a goal will automatically activate the brand-as-means. Eighty undergraduate students participated in this experiment. The participants' response latencies are measured by using a sequential priming procedure<sup>3</sup> where the dependent variable is the response latency. During this *Test Phase (Phase II)*, the participants were primed with either their own goal or a control word, and then judged the target letter strings as either words or non-words as quickly as possible (i.e. lexical decision). The letter strings include their own brand-as-means, the control brand, other English words and an equal number of non-words.

At the beginning of each trial, a fixation point (+) appeared at the center of the screen for 300ms. The participants were told to focus their attention on this sign. The fixation point was followed by a 400ms pause and after that, a prime word appeared in white for 50ms, and then backward masked by xxxxxxxx (at least equal in length to the prime) for 100ms. The mask was then replaced by the target which was in red letters to distinguish the target from both the prime and the mask. The resulting SOA is 150ms which ensures that if differences in response times are obtained between the goal and control primes for the brand-as-means target are significantly different, activating the goal automatically activates the brand-as-means. Out of the 160 experimental trials presented, 20 trials were critical.

*Results.* A 2 (Prime: Goal, Control Word) X 2 (Target: the Brand-as-Means, the Control Brand) within-subject ANOVA was conducted on participants' response latencies. A main effect

of Prime was obtained ( $p < .01$ ), which is qualified by the predicted Prime and Target interaction ( $p < .05$ ). As expected, the participants responded faster to the brand-as-means when their goal was primed compared to when a control word (i.e. house, plant) was primed ( $p < .05$ ), but there is no difference in their response to the control brand regardless of the prime ( $p > .1$ ). Moreover, after the control prime, the participants responded just as fast to the brand-as-means as to the control brand ( $p > .1$ ). These results indicate that a goal could automatically activate the brand-as-means, supporting the cognitive properties of the goal concepts.

## **EXPERIMENT 2: COMMITMENT AND ATTITUDES**

The purpose of experiment 2 is to determine whether the activation of a goal will enhance commitment and explicit attitudes toward the brand-as-means. One hundred and twenty-one undergraduate students participated in this experiment. Here we view commitment conceptually as the *consumers' commitment to want or own the brand* and it is measured with six scales. This measure is consistent with the commitment measure in the goal systems theory (Kruglanski et al. 2002), however, different than the typical conceptualization of commitment in consumer behavior as assessing consumers' continued relationship with a particular brand (Fournier 1998).

*Test Phase (Phase II): Commitment and Attitudes.* As in experiment 1, the participants' goal or a control word (i.e. house, planet) was primed. After the prime, the participants were asked to report their commitment and explicit attitudes towards the brand-as-means and the control brand. The six items used to measure brand commitment and two items for brand attitudes (bad/good; unfavorable/favorable) formed highly reliable (coefficient  $\alpha$ 's of 0.9 and 0.9, respectively) measures of commitment and attitudes. These two measures were analyzed separately with 2 (Prime: Goal, Control) X 2 (Brand: Brand-as-Means, Control Brand) mixed

ANOVAs. For the commitment measure, main effects of Prime and Brand were obtained ( $p < .01$ ), which are qualified by the predicted Prime and Brand interaction ( $p < .01$ ). As expected, participants were much more determined to own the brand-as-means than to own the control brand after their goal was primed ( $p < .05$ ), but there is no difference in their determination to own the control brand regardless of prime ( $p > .1$ ) and after the control prime, there is no difference in the commitment to own the brand-as-means and the control brand ( $p > .1$ ).

Interestingly, no main effects or interaction were observed on attitudes, which indicates that the priming of a goal did not change consumers' attitudes towards the brands-as-means.

The results of experiment 2 are quite interesting in two ways. First, these results indicate that the activation of a goal enhances consumers' commitment to the brand-as-means, but not to the control brand, supporting the motivational properties of goal concepts. Second, these results indicate that commitment to own the brand-as-means (i.e. *wanting of it*) is more sensitive to the goal activation than their explicit attitudes towards the same brand (i.e. *liking of it*). Consumers may strongly want a brand without liking it to the same degree.

### **EXPERIMENT 3: AFFECT TRANSFER TO THE BRAND-AS-MEANS**

The purpose of experiment 3 is to examine whether the type of affect associated with goal attainment transfers to the brand-as-means. In other words, does the type of affect which occurs with goal attainment predict the type of affect associated with the brand-as-means? Seventy-seven undergraduate students participated in this experiment. In this experiment, the participants reported two brands-as-means for each goal. To test this, a series of multiple regressions was used to test the predictions.

*Test Phase (Phase II): Affect Transfer.* Participants first reported the strength of the association between their goal and the brand-as-means by answering two questions: (1) to what extent they regard the brand as a useful means to attain the goal and (2) to what extent the brand comes to mind when thinking of the goal. After responding to these questions, the participants were asked to imagine that they had attained the goal and report the amount of different types of affect they would experience, and then the amount of the different types of affect towards the brands-as-means. Two types of positive affect were measured with respect to the goals and brands: happy and relax, which are two types of affect commonly examined in goal research (Bosmans and Baumgartner 2005; Higgins 1998).

*Results.* In these analyses, the amount of the different types of affect towards the goal, the association between the goal and the brand-as-means and their interaction were regressed on the participants' affect (happy and relax separately) towards the brands. As expected, the results indicate a significant effect on the amount of the type of affect from goal attainment ( $p < .05$ ) on the amount of the same type of affect associated with the brand-as-means after controlling for the strength of the association between the goal and their interaction. In addition, only one type of affect was transferred from the goal to the brand-as-means. Interestingly, different types of affect were transferred with high-level goals and low-level goals. Specifically, happy (a promotion affect) was transferred from a high-level goal to the brands-as-means, whereas relax (a prevention affect) was transferred from a low-level goal to the brands-as-means. These findings are consistent with recent research (Zhang and Mitchell 2004), which indicates that high-level goals are more compatible with a promotion focus while low-level goals are more compatible with a prevention focus.

To summarize, the first three studies find that when a goal is activated, both the cognitive (i.e. activation) and the motivational (i.e. personal commitment and affect) are transferred to the brands-as-means. These findings provide compelling evidence for the first objective that some brands are associated with consumer goals as brands-as-means. It should be noted that although the control brand is also semantically associated with the same goal, it is not participants' own means to achieve the goal. Consequently, we find that only the brand-as-means is an integral part of the goal system, and the goal concept properties are only observed with respect to the brand-as-means, not the control brand. The next two studies will test the second objective that the brand-as-means is more likely to be chosen in a memory-based choice scenario.

#### **EXPERIMENT 4: GOAL AND BRAND-AS-MEANS: A DIRECT LINK**

The purpose of experiment 4 is to test whether the activation of a goal will directly activate both the brand-as-means and the relevant product category. If the related product category is not activated, then we can rule out an alternative model where the product category is activated first and then one of the most accessible brands in this product category is chosen (Nedungadi 1990).

Eighty-eight undergraduate students participated in this experiment. In order to test this latter model, the participants were asked to report the product category for each of the brands-as-means.

*Test Phase (Phase 2): Response Latencies.* A sequential priming task is used which is similar to the one used in experiment 1, however, instead of responding to a control brand, they responded to the relevant product category of the brand-as-means.

*Results.* A 2 (Prime: Goal, Control Word) X 2 (Target: the Brand-as-Means, Relevant Product Category) with-subject ANOVA was conducted on participants' response latencies. The main effects of Prime and Target were obtained ( $p < .01$ ), which are qualified by the predicted Prime and Brand interaction ( $p < .01$ ). As found in experiment 1, the participants responded faster to the brand-as-means when the goal was primed than when the control word was primed ( $p < .01$ ), however, there was no difference in the responses to the relevant product category ( $p > .1$ ). More importantly, the responses to the brand-as-means were significantly faster than to the relevant product category when the goal is primed ( $p < .01$ ). This indicates that activating the goals automatically activates the brand-as-means, but not the relevant product category.

### **EXPERIMENT 5: MEMORY-BASED BRAND CHOICE**

The purpose of experiment 5 is to examine whether the activation of a goal will result in the choice of the brand-as-means in a memory-based scenario. Seventy four undergraduate students participated in the study.

*Test Phase( Phase 2): Brand Choices.* Again, the participants' own goal or a control word (i.e. house, planet) were subliminally primed. After the prime, the participants were asked to imagine that they were going to buy a brand from the relevant product category of the brand-as-means and had to decide which brand they would like to choose. To identify any potential differences in choices which might occur, high and low motivation and opportunity were manipulated at choice.

*Results.* A logistic regression was estimated on the participants' brand choice. If the brand-as-means was chosen, it was coded as "1", if another brand from the product category was chosen, it was coded as "0". The Prime, Level of Motivation and Opportunity and their

interaction are as independent variables. Only a main effect of Prime was observed ( $p < .05$ ), indicating that when the goal was primed, participants were more likely to select the brand-as-means over all other brands in the same product category. On average, 66.03% of the participants chose the brand-as-means when the goal was primed, but only 30.95% chose it with the control prime. These differences are highly significant ( $p < .01$ ), strongly supporting the second prediction.

## **DISCUSSION**

Taken together, these studies provide compelling evidence for the two predictions we made. In general, our paper makes four contributions. First, it provides a new perspective on branding. To the best of our knowledge, our paper is the first paper to systematically examine whether brands can be means within consumer goal systems. For these brands, their accessibility and the consumers' commitment, type of affect and choice are all affected by the activation of the relevant goal.

Secondly, they suggest a new perspective on memory-based choice. Our findings indicate the activation of a goal does not need to always activate a relevant product category. Instead, the activation of a goal can automatically activates the brand-as-means and this brand is more likely to be chosen.

Thirdly, this research extends the consumer literature on automaticity. For the past decade, research in social psychology has painted a compelling picture in automaticity and unconscious processes (Bargh and Chartrand 1999; Dijksterhuis et al. 2005), however, empirical evidence of automaticity is still in the infant stage in consumer behavior. In four of the five



experiments presented here, the goal is automatically activated, and it had substantial changes on consumers' reactions to the brand-as-means.

Finally, this research distinguishes between two types of associations between a goal and a brand: the brand-as-means (goal concept association) vs. the control brand (mere semantic association). We find that semantically linking to a consumer goal is not enough; a brand has to be the consumer's personal means to achieve the goal in order to be greatly influenced by the consumer goal.

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**9:20am – 10:35am: Session 5 (Special Sessions)**

**Session 5A (Card Room)**

**Affective and Cognitive Processes in Self-Control**

*Chair: Anat Keinan, Columbia University*

*Discussant: Tom Meyvis, New York University*

A Bite to Whet the Reward Appetite: Influence of Sampling on Appetitive Behaviors

*Monica Wadhwa, Stanford University*

*Baba Shiv, Stanford University*

*Stephen Nowlis, Arizona State University*

Repenting Hyperopia: An Analysis of Self-Control Regrets

*Ran Kivetz, Columbia University*

*Anat Keinan, Columbia University*

It is In the Mindset! The Effect of Processing Specificity on Consumer Impatience

*Selin A. Malkoc, The University of North Carolina - Chapel Hill*

*Gal Zauberman, The University of North Carolina - Chapel Hill*

*James R. Bettman, Duke University*

## **SPECIAL TOPIC SESSION PROPOSAL**

Society for Consumer Psychology Conference - February 9-13, 2006

Session Title: **Affective and Cognitive Processes in Self-Control**

Papers to be presented:

### **1. A Bite to Whet the Reward Appetite: Influence of Sampling on Appetitive Behaviors**

Monica Wadhwa\*, Stanford University

Baba Shiv, Stanford University

Stephen Nowlis, Arizona State University

### **2. Repenting Hyperopia: An Analysis of Self-Control Regrets**

Ran Kivetz, Columbia University

Anat Keinan\*, Columbia University

### **3. It is In the Mindset! The Effect of Processing Specificity on Consumer Impatience**

Selin A. Malkoc\*, The University of North Carolina - Chapel Hill

Gal Zauberman, The University of North Carolina - Chapel Hill

James R. Bettman, Duke University

Session Chair and Contact Person:

Anat Keinan

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## Discussion Leader

Tom Meyvis, New York University

*All presenters above as well as the discussion leader have agreed to serve if the proposal is accepted.*

### **Session Proposal: Affective and Cognitive Processes in Self-Control**

Research extending over four decades in psychology and economics, and more recently in marketing, has examined self-control and will power (Ainslie 1975; Baumeister 2002; Herrnstein and Prelec 1992, Hoch and Loewenstein 1991; Mischel 1974; O'Guinn and Faber 1989; Mukhopadhyay and Johar 2005; Wertenbroch 1998). In recent years there has been a growing interest in the affective and cognitive processes that enable and determine self-control. MetCalfe and Mischel (1999) proposed a 2-system model, and illustrated how the interaction between a cool, cognitive system, and a hot, emotional system can enable individuals to overcome temptations and delay gratifications. Shiv and Fedorikhin (1999) examined the interplay of affect and cognition in consumer decision making, and demonstrated the effect of task-induced affect and cognitions arising from more deliberative processing on consumers' self-control.

The purpose of this session is to present work that adds to this growing body of research in the psychology and consumer research literature. The three presentations highlight the role of affective rewards, consumers' regret, guilt, wistful feelings of missing out, temporal perspective, and processing specificity, which taken together offer insights into the affective and cognitive processes in consumers' self-control. In addition, the three papers explore the role of affect and

cognition in a variety of self-control dilemmas and domains including, eating, working, studying, spending money, and intertemporal choice (time discounting).

In the first paper, Wadhwa, Shiv, and Nowlis propose that presenting a reward cue high in affective quality can lead to activation of a general reward system making individuals seek anything rewarding. The authors show that affective quality of an external cue such a quaff of Hawaiian punch or a bite of milk chocolate can trigger a general reward system, the appetitive potentiation effects of which can carry over to the subsequent task leading individuals to seek anything rewarding.

In the second paper, Kivetz and Keinan propose that supposedly farsighted (“hyperopic”) choices of virtue over vice evoke increasing regret over time. The authors argue that the passage of time differentially impacts the affective antecedents of self-control regrets. Accordingly, they demonstrate that greater temporal perspective attenuates affective *indulgence guilt* but sustains and even accentuates wistful feelings of *missing out* on the pleasures of life. The authors also show that reversals in self-control regrets affect subsequent, real choices. Whereas short-term regret motivates consumers to choose virtue, long-term regret impels them to select indulgence.

The third paper, by Malkoc, Zauberan and Bettman proposes that processing specificity can affect consumer impatience. The authors show that shifts in abstractness of processing (e.g. focusing on the big picture or on the details) moderate the degree of present bias. Specifically, they show that consumers who think more concretely are more prone to hyperbolic-like discounting compared to those who think abstractly and that this pattern of results can be obtained even when information processing specificity is manipulated using an unrelated task.

The papers presented in this session are unique in their conceptual treatment of consumer self-control. Overall, the session will provide new insights into the key factors that affect

consumer self-control in a variety of domains. The session has both theoretical and practical implications in that it presents new theories regarding the conditions in which consumers succeed or fail at self-control; such consumer failures have particularly detrimental societal implications. All three papers include considerable empirical evidence. We expect the session to appeal to broad segments of the SCP constituency, including members interested in decision-making, consumer self-control, time-inconsistency, and cognitive and affective processing. In addition to attracting researchers interested in the session theme, we expect further interest from those who work within the application areas represented. Tom Meyvis, who published research on affective and cognitive processes, will integrate the papers and lead a discussion about the research ideas presented and the general session theme.



## SHORT ABSTRACTS

### **A Bite to Whet the Reward Appetite: Influence of Sampling on Appetitive Behaviors**

Monica Wadhwa, Baba Shiv, and Stephen Nowlis

The French have a saying "*L'appetit vient en mangeant*" or appetite comes with eating. Consistent with this French expression, this research proposes that sampling a morsel of food or a quaff of drink high in affective quality can not only enhance subsequent consumption of a drink (Pepsi) but is likely to prompt activation of a general reward system making individuals seek anything rewarding. Moreover, we show that the effect of reward cues is stronger for individuals overactive on the Behavioral Activation Scale. Further, the results confirm that the effect of reward cues on future consumption is greatly attenuated if the reward drive is satiated before the consumption of the drink.

## **Repenting Hyperopia: An Analysis of Self-Control Regrets**

Ran Kivetz and Anat Keinan

This article demonstrates that supposedly farsighted (“hyperopic”) choices of virtue over vice evoke increasing regret over time. We argue that the passage of time differentially impacts the affective antecedents of self-control regrets. Accordingly, we demonstrate that greater temporal perspective attenuates affective *indulgence guilt* but sustains and even accentuates wistful feelings of *missing out* on the pleasures of life. We also show that reversals in self-control regrets affect subsequent, real choices. Whereas short-term regret motivates consumers to choose virtue, long-term regret impels them to select indulgence. We rule out alternative explanations and discuss the theoretical implications for self-control.

## **It is In the Mindset!**

### **The Effect of Processing Specificity on Consumer Impatience**

Selin A. Malkoc, Gal Zauberaman, and James R. Bettman

Consumers constantly make decisions about when to consume a product and what costs to incur to obtain sooner consumption. Prior research has demonstrated that consumers show decreasing levels of impatience as the delay of consumption gets longer. In this work, we examine cognitive underpinnings of such present-biased preferences. We propose that shifts in the abstractness of processing (focusing on the big picture versus the details) would moderate the degree of present bias. The results of two studies show that the mindset (concrete versus abstract) evoked in previous and unrelated decisions moderates how present-biased consumers are.

## LONG ABSTRACTS

### **A Bite to Whet the Reward Appetite: Influence of Sampling on Appetitive Behaviors**

Monica Wadhwa, Baba Shiv, and Stephen Nowlis

Sampling programs are an important element of the promotion mix, particularly in the food and beverages categories. Sampling has many benefits including the ability to change a product's image or introducing a new product in the market. However, a dilemma retailers commonly face is that though sampling is an effective marketing tool, sampling food and beverage items at retail outlets can also make the consumer less hungry or thirsty, which could potentially reduce sale of items in these categories and thereby shrink the size of the market basket. This research argues that sampling a food item or a drink, rather than satiating the consumer can actually work as a reward cue and potentiate appetite for more drink or food as effectively as an increase in physiological needs of hunger or thirst. In other words, one bite of food or a quaff of drink can lead to intensification of hunger or thirst in an individual who moments ago was not thinking of dinner or consuming a drink. As the French expression puts it, "l'appetite vient en mangeant" loosely translated as appetite comes with eating. If this is true then consumers ought to buy more food and/or beverage items after sampling a food item or a drink in the store environment.

The above thesis is in line with research conducted on drive states and reward cues. For example Cornell et al (1989) in their study find that human subjects who were fed to satiety, if asked to take a bite of either pizza or ice cream subsequently chose to eat more of the foods they had just eaten. Their study therefore proposes that eating a food item can increase the subsequent consumption of the same food item. Further, in Winkielman and Berridge's research presenting individuals with smiling faces led to an increase in consumption of lemon-lime beverage. In

other words, smiling faces acted as a reward cue thereby activating a general reward system leading to an increase in subsequent consumption of the drink. Moreover, a body of research in alcohol addiction show presenting an individual with a conditioned reward cue can lead to activation of a general reward system causing individuals to seek anything rewarding. For example, Kambouropoulos and Staiger (2001) in their study show that presenting individuals with a reward cue such as a Beer can and a beer glass led to not only an increase in urge to drink but activated a general reward system making them more engaged in appetitive behaviors such as making money in a subsequent task.

Drawing upon research on reward cues and drive states, we propose that sampling a morsel of food or a quaff of a drink high in affective quality is likely to trigger a general reward system that will not only increase consumption of a drink in the subsequent task but will make individuals seek anything rewarding. Moreover, we predict that this effect would be stronger for individuals high on reward seeking behavior. In other words, individuals overactive on the Behavioral Activation Scale (BAS) should be more sensitive to the reward cues than those low on the BAS.

To test the above mentioned hypotheses, we randomly assigned subjects to either a reward cue condition or a control condition. In the reward cue condition participants sampled Hawaiian punch (presented to participants in the guise of a new sports drink) while those in the control condition consumed nothing. Subsequent to sampling the drink, participants moved to an adjoining room where they evaluated several rewarding and non rewarding items in both food and non food categories. Participants then viewed a documentary purportedly part of a main study conducted for TiVo. They were served Pepsi while they watched the video. To disguise the purpose of the study, subjects were told that TiVo had given free Pepsi to be served to them.

Consistent with our expectations experiment 1 results indicate that a brief taste of Hawaiian Punch not only enhanced subsequent consumption of Pepsi but also prompted the activation of a general reward system. To elaborate, subjects who had tasted Hawaiian Punch consumed significantly more amount of Pepsi than those in the control condition. Further, subjects in the reward cue condition evaluated the rewarding items such as an exquisite spa, vacation in Bora Bora, \$5 off on batteries etc significantly higher in the subsequent task of product evaluations than those in the control condition. These effects were moderated by the personality variable, Behavioral Activation System, such that individuals high on BAS were more sensitive to external incentive stimulus (Hawaiian Punch) than those low on the BAS.

Our proposition thus far is that presenting a reward cue high in affective quality can lead to activation of a general reward system making individuals seek anything rewarding. If this is true, then satiating the reward drive prior to the consumption of Pepsi ought to attenuate the effects found in experiment 1. This proposition was supported in experiment 2. Consistent with our proposition, participants in the high affective quality cue (milk chocolate) condition consumed significantly more amount of Pepsi than those in the low affective quality cue (soy chocolate condition) who were not different from control condition in the pattern of drinking. This effect was moderated by reward satiation. In other words, subjects in the high affective quality – non reward satiation condition consumed significantly more amount of Pepsi than those in the high affective quality - reward satiation condition. Thus, presenting a dollar bill satiated the reward drive thereby reducing the drive to seek anything rewarding in the subsequent task.

In sum, our findings suggest that affective quality of an external cue such as a quaff of Hawaiian Punch or a bite of milk chocolate can trigger a general reward system, the appetitive potentiation effects of which can carry over to the subsequent task leading individuals to seek

anything rewarding. Our findings have important implications for the marketers. These results suggest that sampling a food item or drink in a grocery store is not only likely to increase the purchase of food and beverage items but also other rewarding items such as items on sale.

## **Repenting Hyperopia: An Analysis of Self-Control Regrets**

Ran Kivetz and Anat Keinan

“The trouble with resisting temptation is it may never come your way again.”

*Korman's Law*

“There is not any memory with less satisfaction than the memory of some temptation we resisted.”

*James Branch Cabell*

Our religions, mythologies, and fables admonish us to overcome temptation, exercise self-discipline, and heed the future (see Adam and Eve, Odysseus, and the Ant and the Grasshopper). Consumer researchers, too, offer helpful strategies for increasing willpower and avoiding indulgence (e.g., Hoch & Loewenstein 1991; Mukhopadhyay & Johar 2005; Wertenbroch 1998). The seemingly universal espousal of prudence and farsightedness as noble goals is reflected in the vast literature on self-control. This body of research is premised on the notion that people are short-sighted (myopic) and easily tempted by hedonic “sins,” such as overbuying (oniomania), splurging on tasty but unhealthy food, and indulging in luxuries (e.g., Baumeister 2002; Herrnstein & Prelec 1992; O’Guinn & Faber 1989). Importantly, this literature suggests that people not only yield to temptation they had originally planned to resist, but also subsequently reverse their preference and regret their myopic behavior (Elster 1979; Schelling 1992).

While yielding to temptation can certainly be harmful, this article argues that overcontrol and excessive farsightedness (“hyperopia”) can also have negative long-term consequences for consumers. In particular, we propose that with the passage of time, choices of virtue over vice (e.g., work over pleasure) evoke increasing regret. Accordingly, we demonstrate that --- in both retrospective and prospective evaluations of past and current self-control dilemmas (respectively)



--- increasing the temporal separation between the actual decision and its assessment enhances the regret (or anticipatory regret) of righteous choices.

We explain this finding building on research on self-control and on affect (Kahneman 1995; Kivetz & Simonson 2002; Loewenstein 1996; Metcalfe & Mischel 1999; Schwarz & Clore 1996) and argue that greater temporal perspective allows consumers to escape the influence of affective *indulgence guilt* and causes them to experience a wistful feeling of *missing out* on the pleasures of life. More specifically, scholars of affect have distinguished between emotions and other affective feelings (e.g., Schwarz & Clore 1996). Whereas emotions are characterized by high intensity, a sharp rise time, and limited duration, other affective feelings and moods have low intensity, arise gradually, and may last for extended periods. A related distinction has been made by researchers of self-control and intertemporal choice, who argue that “hot,” emotional dimensions are discounted more steeply over time than are more “cool,” cognitive dimensions (Loewenstein 1996; Metcalfe & Mischel 1999). Further, Kahneman (1995) contrasted between “hot” and “wistful” feelings. According to Kahneman, hot emotions such as guilt and shame are more intense and short-lived than wistful, contemplative feelings such as nostalgia. That is, hot emotions are predicted to dominate in short-term perspectives (e.g., evaluations of the recent past), whereas wistful feelings are expected to dominate in long-term perspectives (e.g., assessments of the distant past). Gilovich, Medvec, and Kahneman (1998) found empirical support for these predictions.

We predict that the guilt of choosing vice will decay over time more rapidly than the wistful feeling of missing out on pleasure due to choosing virtue. Whereas guilt is an acute, hot emotion, missing out is a colder, contemplative feeling. Therefore, affective indulgence guilt is expected to predominate in the temporal proximity of the relevant self-control choice, but

subsequently diminish over time. In contrast, as Kahneman argues, long-term perspectives give rise to wistful feelings whose realization may even grow over time. Further, a broader perspective invites a more global assessment of life and past choices. The desired experiences and memories that are evoked by a global assessment of life are more likely to involve pleasure than necessity, a bias which favors feelings of missing out over emotions of indulgence guilt. Thus, wistful feelings of missing out on the pleasures of life are predicted to persist, and even increase over time, thereby predominating when a righteous choice is evaluated from a broad (long-term) temporal perspective.

Consistent with our conceptualization, we show that the intensifying regret about past hyperopia is mediated by the decay of indulgence guilt and the persistence and often increase of feelings of missing out. A key test provides converging evidence for the underlying role of guilt and missing out and demonstrates that priming cognitive rather than affective processing attenuates the temporal variation in self-control regrets.

The temporal reversal of self-control regrets (regretting myopia in the short-run vs. hyperopia in the long-run) is shown to influence immediate preferences. Whereas short-term regret motivates consumers to consume necessities and choose virtuous options, long-term regret impels consumers to select luxury and indulgence. This effect occurs when consumers anticipate regret of a real impending choice or regret a past decision that is seemingly unrelated to a current real choice.

The affective antecedents and behavioral consequences of self-control regrets are explored using a variety of real choices and regrets, with participants that represented a wide range of demographic characteristics including age, gender, and income (e.g., students and alumni; airport travelers; park visitors). In addition to testing our conceptualization, the reported

experiments examine alternative explanations, involving such factors as errors of commission versus omission and levels of construal.

## **It is In the Mindset!**

### **The Effect of Processing Specificity on Consumer Impatience**

Selin A. Malkoc, Gal Zauberan, and James R. Bettman

Consumers often face decisions that involve costs and benefits that are distributed over time. For instance, in considering delivery options or consumption times, consumers trade off sooner consumption with elevated costs. Extensive research in the intertemporal choice literature examined such decisions and found that consumers are not only highly impulsive, but also show a decreasing pattern of impatience as time horizon gets longer (e.g., Thaler 1981). Decreasing impatience (i.e., present bias or hyperbolic discounting) refers to the phenomenon where from a distance consumers think that they will be patient. However, when the time of action gets closer, tolerance for waiting declines and they behave impatiently. This inconsistency leads to self control problems like overspending and overeating, even when consumers have the best intentions.

Although there is ample evidence documenting present-biased preferences, relatively little is known about its underlying mechanism. Explanations offered for present-biased preferences include both affective (Loewenstein 1996; Rachlin and Raineri 1992) and cognitive processes (Malkoc and Zauberan 2005; Zauberan and Lynch 2005). These accounts, however, focused on the responses that are triggered by the focal outcome. Specifically, existing research explored changes in outcome-specific feelings (i.e., deprivation) or cognitions (i.e., representational proximity) as the driving force behind consumers' propensity to value shorter temporal deviations more than longer ones.

In the current work, we suggest that previous tasks can change the general type and level of processing and that such a change might be sufficient to explain dynamic inconsistencies in

consumers' preferences. Building upon ideas from the psychology of verbal processing (e.g., Paivio 1971) and temporal construal (Trope and Liberman 2003), we argue that when consumers are in a concrete processing mode, their information processing is more myopic and context dependent, leading to present-biased preferences. When the processing mode is more abstract, however, consumers' preferences show more consistency, leading to less present bias. Two studies that manipulated processing level provide support for this prediction.

Based on research showing that abstract thinking is facilitated when evaluating non-comparable options (Johnson 1984; Malkoc et al., 2005), Experiment 1 (N = 108) manipulated mindset abstractness with a comparison task that presented the options either on alignable (comparable) or non-alignable (non-comparable) attributes. Participants were first provided with two camera options presented on seven attributes (either alignable or non-alignable) and were asked to compare these two cameras. Next they were told to imagine shipping the camera and were asked how much they would need to save to delay its receipt by 3 and 10 days. As expected, we found a 2-way interaction between the time horizon and alignability ( $F(1, 106) = 5.653, p < .05$ ), demonstrating greater present bias when participants evaluated alignable, compared to non-alignable options.

To further test our hypothesis, in Experiment 2 (N = 180), we manipulated abstraction with a totally unrelated task. In the first part, participants wrote their thoughts about U.S. immigration policy regarding Cubans. Participants were directed to think either about the big picture implications of this policy (abstract condition) or about a concrete exemplar (Elián González). Next, presented as a separate study, participants completed a gift certificate study where they delayed the redemption date of a \$100 [www.amazon.com](http://www.amazon.com) gift certificate by 3 or 12 months. As expected, the analyses showed a significant 2-way interaction between abstractness of mindset

and time horizon ( $F(1, 170) = 5.26, p < .05$ ), demonstrating less present bias when participants thought about the broad implications of an issue compared to when they thought about a specific exemplar of this issue.

In sum, the current work demonstrates that changes in the specificity (concreteness) vs. abstractness of processing have systematic effects on present-biased preferences. Specifically, we show that when in abstract mind sets, consumers act less present-biased compared to when they think more concretely. These results suggest that the extent to which consumers show differential impatience (or lack of self control) over different the time horizons depends on the abstractness of their mindset, which can be influenced via prior and unrelated experiences.

## **Session 5B (Mirage Bar)**

### **Unbearable Weight of the Weight: Subversive Biases in Food Consumption Decisions**

*Chairs: Wan Fang, University of Manitoba*

*Raghunathan Rajagopal, The University of Texas at Austin*

The Influence of the 'Unhealthy = Tasty Intuition' on Food Consumption Decisions

*Rajagopal Raghunathan, The University of Texas at Austin*

*Rebecca Walker, The University of Texas at Austin*

*Wayne Hoyer, The University of Texas at Austin*

Controllability and Positive Stereotypes on Obesity Stigmatization

*Wan Fang, University of Manitoba*

*Sridhar Samu, University of Manitoba*

*Namita Bhatnagar, University of Manitoba*

Relationship between Elaboration on Potential Outcomes and Deleterious Consumption: The Case of Obesity, Healthy Lifestyle, and Self-Control

*Gergana Yordanova, University of Pittsburgh*

*Jeff Inman, University of Pittsburgh*

*John Hulland, University of Pittsburgh*

Effect of Anti-Obesity Media on Body Image and Antifat Attitudes

*Laura Jakul, University of Manitoba*

*Norah Vincent, University of Manitoba*

**SESSION PROPOSAL**  
**THE UNBEARABLE WEIGHT OF THE “WEIGHT”:**  
**THE ROLE OF CONTROLLABILITY IN CONSUMER OBESITY AND OBESITY**  
**STIGMATIZATION**

In American society, it is not an exaggeration to say that individuals who are obese are doomed to a life full of stigma. Obesity stigmatization starts as early as 2-5 years of age (Turnbull, Heaslip and McLeod, 2000) and research evidence suggests that obese children experience more social difficulties than their average-weight peers. Specifically, obese children are viewed as less likeable and as less desirable friends than average-weight children (Maddox, Back and Liederman, 1969); they are described by their peers as ugly, stupid, dishonest, and lazy (Stafforo, 1967); they receive frequent weight-related teasing, are the focus of weight-related jokes and are called derogatory names (Neumark-Sztainer, Story and Faibish, 1998); and they are victimized, date less, and are less satisfied with their dating status compared to their peers (Pearce, Boergers and Prinstein, 2002). For adults, obesity stigmatization is prevalent in every aspect of their lives including employment, insurance coverage, health care, college admissions, legal decisions, and social interactions (Klesges et al., 1990; Register and Williams, 1990; Allon, 1982; Maroney and Golub, 1992; Miller et al., 1995; Pingitore et al., 1994).

Compared to other social stigmas related to racial membership, religious affiliation and sexual preference, the stigma of being obese may be the most debilitating (Allon, 1987). That is, obese individuals do not experience an in-group favorability bias—individuals who are overweight and normal weight are equally likely to endorse anti-fat attitudes (Crandall, 1994; Crandall and Biernat, 1990), and obese individuals tend to blame themselves for their failure to control their weight and for the social prejudice they encounter (Crocker, Cornwell and Major, 1993). Ironically, as victims of social stigmatization and prejudice, obese individuals swallow their bitterness and internalize the obesity stigma society has imposed on them and therefore experience lowered self-esteem and diminished self-concept. In contrast, members of many other stigmatized groups have self-esteem that is equal to or higher than that of the non-stigmatized group and they attribute their stigmatization to the prejudice of out-group members (Klaczynski, Gould and Mudry, 2004).

Because obese consumers are trapped in a self-fulfilling prophecy, it seems important for consumer researchers and public policy makers to find out what causes and intensifies obesity stigmatization and what measures could be taken to ameliorate the conditions of obese consumers. In this special session, three presentations set out on a journey to find out the answers to these questions and each presentation provides different policy implications.

The first presentation (Wan, Samu and Bhatnagar) examined how the way in which obesity is attributed affects obesity stigmatization. While previous research examined the impact of perceived external and internal causes on obesity stigmatization (e.g., Bell and Morgan, 2000; Tiggerman and Aneshury, 2000; Klaczynski et al., 2004), Wan and colleagues went one step further by examining the differential impact of attributions of obesity: external causes (e.g., medical causes of obesity), internal causes (e.g., lack of impulse control, personal responsibility for obesity) and social causes (e.g., family and environmental influences) on both the positive and negative stereotypes of obesity. They found that an external attribution has a dual impact—it increases both positive stereotyping of obesity and obesity stigmatization. They also found that that a social attribution reduced obesity stigmatization only for overweight respondents, not for



normal weight respondents. In addition, they reported that positive stereotypes of the obese helped to reduce stigmatization attitudes and behaviors. The presentation of Wan et al. will have important implications for media and social marketing professionals as to how to portray obesity in order to initiate positive stereotypes of obesity and mitigate obesity stigmatization.

The second presentation (Yordanova, Inman and Hurland) brings the issue of personal control back to the spotlight. It tackles very important aspects of obesity stigmatization: what is it about obese individuals that makes them obese in the first place, and should obese individuals be held accountable for their physical state? This question invites widely divergent responses and most recent views seem to be that obesity could be determined by genetic and medical conditions (Sim 1989; Bouchard et al., 1990; Price et al., 1987; Stunkard et al., 1986); holding obese individuals accountable for their physical state serves to exacerbate (instead of improve) obesity stigmatization (e.g., Miller, 1999), and obesity treatment should deemphasize the goals of weight loss and instead focus on health improvements (e.g., Lyons and Miller, 1999; Barlow et al., 1995; Miller, 1999; Tremblay, 1991). Nevertheless, the findings of Yordanova et al. seem to suggest that there is a trait-based difference between obese and non-obese individuals in terms of their processing strategies. Specifically, obese individuals have a lower tendency to engage in future/outcome-oriented thinking compared to non-obese individuals.

Their presentation will re-orient obesity researchers to the ways in which obesity arises and what can be done to ameliorate the situations of the obese. For example, in obesity treatment programs, setting short-term, realistic goals might help obese consumers to adopt healthier life styles by implementing a healthy diet and moderate exercise. In addition, their presentation will also enrich our understanding of the unique information processing styles that obese consumers may adopt. For example, obese consumers may engage in process-oriented thinking (vs. outcome-oriented thinking); or they may adopt affect-driven processing when it comes to food and may seek immediate gratification (e.g., McFarlane, Polivy and McCabe, 1999); or they may over-emphasize food and eating related behaviors such that their cognitive capacity is depleted when it is needed to exert control (Vohs and Faber, 2004).

The third presentation by Jakul and Vincent will outline the impact of exposure to anti-obesity media on body image disturbance and antifat attitudes. In particular, the influence of personal responsibility for weight, a message often included in anti-obesity media will be discussed. Previous research has examined the effect of messages suggesting that weight is controllable on perceptions of others (e.g. Dejong, 1980). However, the impact of messages about the controllability of weight has not been studied in terms of how they affect body image disturbance. This study was one of the first of its kind to evaluate the impact of obesity media and to assess the effect of such media on self-perceptions. Jakul and Vincent found that reading newspaper articles about obesity improved antifat attitudes except when the message that weight is controllable was included. They also found that that high drive for thinness is a pre-existing characteristic that improves body image disturbance, negative eating attitudes, worry and food avoidance, and that those who initially perceived themselves as underweight were more likely to have improvements in body image disturbance after exposure to health-related media. These results have important implications for the ways in which obesity media should be presented to the public. Specifically, they suggest that obesity media should promote a healthier message about weight, indicating that an appropriate weight is one that the body adopts as a result of a healthy lifestyle, and with the help of a health professional, not a weight that is promoted by the media (Weight Realities Division of the Society for Nutrition Education, 2003).

The last presentation (Raghuathan, Walker and Hoyer) complemented previous presentations by examining one of the biggest alleged cause of obesity—over-consumption of unhealthy food. Their investigation is timely because of this well-documented dilemma-- consumers continue to partake large quantities of unhealthy food despite the negative consequences of doing (e.g., Balasubramanian and Cole, 2002; Kozup, Creyer, and Burton, 2003; Seiders and Petty, 2004). Previous findings demonstrated that people over-consume unhealthy food either because they are unaware of the negative consequences of doing so (presumably because of poor marketing and/or presentation of nutritional information) or because they lack the will power to resist such foods. However, Raghuathan et al. provided an alternative explanation--in addition to these factors, a more subtle force may be at work: consumers may over-consume foods that they perceive to be unhealthy because they assume that such food will taste better. They conducted three experiments to test their theory and the findings attested to the robustness and generality of the influence of the Unhealthy = Tasty intuition. In addition to be one of the first studies to examine the role of food related perceptions or heuristics in food consumption, Raghuathan et al's presentation has important policy implications. Rising level of obesity in North American society can be partially attributed to the perceptions of unhealthy food=tastiness. Food related heuristics like this can cause consumers' over-consumption of unhealthy food and their constant struggle to solve the trade-off between healthiness and tastiness. Both factors pose severe challenges to control the amount and quality of food intake. Then, it remains an interesting question for future researchers what causes this perceived correlation of unhealthy food and tastiness. Our knowledge of the antecedents of the unhealthy food-tastiness heuristic can help design effective public campaign promoting the linkage between healthy food and tastiness and encouraging a healthier eating and life style.

We expect this special session about obesity to appeal to a significant portion of the ACR membership with its important and timely topic. In particular, we hope to draw people who are interested in research on gender issues, public policy/social issues, self control/self-regulation and discuss ways to improve the conditions of obese consumers.

-----**SHORT ABSTRACTS**-----

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**Ways out of Self-Fulfilling Prophecy Trap:  
The Role of Perceived Controllability and Positive Stereotypes in Reducing Obesity  
Stigmatization**

Fang Wan, University of Manitoba  
Sridhar Samu, University of Manitoba  
Namita Bhatnagar, University of Manitoba

While previous research examined the impact of perceived external and internal causes on obesity stigmatization (e.g., Bell and Morgan 2000; Tiggerman and Aneshury 2000; Klaczynski et al. 2004), this study examines the differential impact of attributions of obesity (i.e., external/genetic causes; internal causes/lack of impulse control; social causes/family and environment influence) on both the positive and negative stereotypes of obese group and obesity stigmatization. We found that an external attribution had a dual impact—it increased both positive stereotyping of obesity and obesity stigmatization; a social attribution reduced obesity stigmatization only for overweight respondents, not for normal weight respondents; positive stereotypes reduced obesity stigmatization.

**Relationship between Elaboration on Potential Outcomes and Deleterious Consumption:  
The Case of Obesity, Healthy Lifestyle, and Self-Control**

Gergana Yordanova, University of Pittsburgh

Jeff Inman, University of Pittsburgh

John Hulland, University of Pittsburgh

This research examines the relationship between individuals' tendency to elaborate on potential future outcomes and obesity, healthy lifestyle, and self-control. The process of elaboration on potential outcomes captures the degree to which individuals both generate positive and/or negative consequences of their behavior and evaluate the likelihood and importance of these consequences. In two studies, we show that obese individuals – when compared to non-obese individuals – have a lower tendency to consider potential future outcomes. Furthermore, a person's tendency to elaborate on potential outcomes predicts the extent to which they engage in self-control behaviors, as well as the frequency with which they consume healthy food, drink alcohol, smoke, and exercise.

***Effect of anti-obesity media on body image and antifat attitudes***

Laura A. Jakul, University of Manitoba

Norah Vincent, University of Manitoba

This research examines whether exposure to anti-obesity media contributes to body image disturbance and antifat attitudes, and whether attributing obesity to internal factors leads to more negative evaluations of body image and more antifat attitudes. Results showed that reading newspaper articles about obesity improved antifat attitudes except when the message that weight is controllable was included. Results also demonstrated that high drive for thinness is a pre-existing characteristic that improves body image disturbance, negative eating attitudes, worry and food avoidance, and that those who initially perceived themselves as underweight were more likely to have improvements in body image disturbance after exposure to health-related media.

***The Influence of the 'Unhealthy = Tasty Intuition' on Food Consumption Decisions***

Raj Raghunathan, The University of Texas at Austin

Rebecca Walker, The University of Texas at Austin

Wayne Hoyer, The University of Texas at Austin

Understanding the effects of food consumption habits on health has emerged as a topic of great significance for policy makers in recent years, particularly in the US, where obesity is prevalent (Hedley et al., 2004). The question of why consumers continue to partake of large quantities of unhealthy food despite the negative consequences of doing so has piqued the interest of academics as well (e.g., Balasubramanian and Cole, 2002; Kozup, Creyer, and Burton, 2003; Seiders and Petty, 2004). Previous findings in this area are consistent with the idea that people over-consume unhealthy food either because they are unaware of the negative consequences of doing so (presumably because of poor marketing and/or presentation of nutritional information) or because they lack the will power to resist such foods. In what we believe is the first rigorous empirical demonstration of its type, our findings indicate that, in addition to these factors, a more subtle force may be at work: consumers may over-consume foods that they perceive to be unhealthy because they assume that such food will taste better.

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***Ways out of Self-Fulfilling Prophecy Trap:  
The Role of Perceived Controllability and Positive Stereotypes in Reducing Obesity  
Stigmatization***

**Fang Wan, Sridhar Samu and Namita Bhatnagar**

**Obesity Stigma: A Trap in Self-Fulfilling Prophecy**

Despite the fact that half of North American adults are heavy and 1 out of 4 are considered obese, being obese remains one of the most devastating stigmas to possess (Hebl and Mannix, 2003; Allon, 1987). Obesity stigmatization has been documented in every aspect of one's life such as employment, insurance coverage, health care, college admissions, legal decisions, and social interactions (Klesges et al., 1990; Register & Williams, 1990; Allon, 1982; Maroney and Golub, 1992; Miller et al 1995; Pingitore et al., 1994).

In contrast to other social stigmas, the stigma of being obese may be the most debilitating (Allon, 1987). Members of many other stigmatized groups have self-esteem equal to or higher than that of the non-stigmatized and they attribute the stigmatization to the prejudice of out-group members (Klacznski, Goold and Mudry, 2004). However, both overweight and normal weight people are equally likely to be anti-fat (Crandall 1994; Crandall and Biernat, 1990), and obese individuals tend to attribute the social prejudice they encounter to themselves (i.e., their weight; their failure to control their weight) (Crocker, Cornwell and Major, 1993). Furthermore, anti-fat attitudes, lack of in group bias, and attributional style can lead to depression, self blame, lowered self esteem, social distress and other negative psychological states (e.g., Crandall 1994; Crandall and Biernat 1990; Myers & Rosen 1999). They can also result in isolation, inability to express emotions and avoidance of social interactions (Hughes and Degher, 1993). It seems that obese consumers are trapped in a self-fulfilling prophecy in that they victimize themselves by embracing and internalizing the stigma that society imposes on them (Crocker and Major, 1989). Because obese consumers are trapped in a self-fulfilling prophecy, it seems important to find out ways to alleviate obesity stigmatization. This paper proposes that framing of causes of obesity differently will reduce negative stereotypes of obesity (e.g., lack of will power, laziness) and increase empathy and positive stereotypes of obesity (e.g., fun, humorous, warm); positive stereotypes will in turn negatively affect anti-obesity attitudes and behaviors.

*Obesity-Related Attributions and Obesity Stigmatization Reduction*

One of the propelling forces of obesity stigmatization is controllability of obesity or controllability of weight (Weiner, 2000; Crandall et al., 2000; DeJong, 1980). An attribution-value model of stigma proposes that the disparaging perception of obese group is predicated on the assumption that weight is controllable, and therefore, individuals who are obese are at fault for their condition (Crandall et al., 2001). In a way, perceived controllability of weight transforms obesity as a physical stigma into obesity as a character stigma (DeJong, 1980; Goffman, 1963). A current cultural assumption is that people can remain lean if they will merely exercise and maintain self-control of their dietary intake (Brownwell, 1991). Under this assumption, those who are overweight are stereotypically perceived as having defects of will power, character and responsibility (e.g., DeJong, 1980; Larkins & Pines, 1979). Prejudice and stigmatization of obese people can be further intensified and exacerbated by marketing and media messages promoting the desire for thinness and promoting low weight/size as the criterion for social success (Blaine and DiBlasi, 2002).

Previous researchers distinguished two types of attributions about obesity—external causes and internal causes—and examined their impact on obesity stigmatization. For example, when obesity is attributed to internal causes such as lack of impulse control, or personal shortcomings, obese people are more stigmatized and negatively stereotyped (Tiggerman and Aneshury, 2000; Klaczynski, 2004); obese group members would consequently experience more depression and self-blame (Stradmeijer et al., 2000; Pierce & Wardle, 1997). When medical conditions were provided as the cause of obesity (external control), obese groups were blamed less for their condition (Bell and Morgan, 2000). However, what remained unsettled in previous research findings is whether external attributions about obesity will also affect positive attitudes toward obesity. Bell and Morgan (2000) did not find that beliefs about external causes of obesity affected likings of obese group. However, Grosko (2000) found that external attributions about obesity resulted in more positive attitudes toward obesity and less negative reactions toward obesity such as anger, disgust and pity.

Therefore, in this study, we examine the differential impact of different obesity attributions—external control (e.g., genetic and medical causes of obesity), internal control (e.g., lack of impulse control, personal responsibility for obesity) and social control (e.g., family and environmental influence) on both the positive and negative stereotypes of obesity. Based on prior research findings, we would expect that internal attributions of obesity (in terms of internal control) will result in more negative stereotypes and less positive stereotypes about the obese, and more anti-obesity attitudes and behaviors. In contrast, external attributions of obesity (in terms of external and social control) will result in less negative stereotypes and more positive stereotypes of obese group, and less anti-obesity attitudes and behaviors. In addition, there has been very limited research on positive stereotypes associated with obese people. Given the fact that obese individuals are negatively portrayed in the media (Greenberg et al., 2003; Fouts and Burggraf, 2000), cultivating and portraying positive stereotypes of obese people as jovial, friendly, and willing to help others should lead to greater social acceptance of the obese and may help to shift attention away from their physical attributes and body size onto their personality (Puhl and Brownell, 2003). Hence, these positive stereotypes should lead to less anti-obesity attitudes and behaviors.

A door-to-door drop off survey was administered to residents of a southern Canadian city with a population of 600,000 people. From a listing of all the streets, 45 streets and 10 houses per street were randomly chosen. Of 450 surveys distributed, 305 were filled out, resulting in a response rate of approximately 68%. Amos 4.0 was employed to estimate the structural relationships between key variables. Results found that employing an external attribution has a dual impact—it increases both positive stereotyping of obesity and obesity stigmatization; a social frame reduced obesity stigmatization only for overweight respondents, not for normal weight respondents. In addition, we found that positive stereotypes about obese people helped to reduce obesity stigmatization attitudes and behaviors. These research findings have important implications for public policy makers as well as media and social marketing professionals as to how to portray causes of obesity in order to generate positive stereotypes about obesity and mitigate obesity stigmatization.

***Relationship between Elaboration on Potential Outcomes and Deleterious Consumption: The Case of Obesity, Healthy Lifestyle, and Self-Control***  
**Gergana Yordanova, Jeff Inman and John Hulland**

It is widely accepted that the extent to which people consider the future implications of their behaviors can have significant implications for their choices and for their future outcomes. Many psychological theories of motivation have advanced the idea that people's actions are greatly affected by their beliefs about the probable outcomes of those actions. According to these theories, people motivate themselves and guide their actions anticipatorily by the outcomes they expect to result from given courses of behavior (for a review see e.g., Bandura 1997).

In this paper we examine the relationship between individuals' tendencies to elaborate on potential future outcomes and their obesity, healthy lifestyle, and self-control. We conceptualize the process of consequences consideration as a construct that encompasses four related dimensions: (1) the extent to which people generate potential consequences, (2) the extent to which they focus on the positive consequences, (3) the extent to which they focus on the negative consequences, and (4) the extent to which people evaluate the importance and likelihood of the consequences they generate. In a series of studies (total  $n = 887$ ) we have developed the Elaboration on Potential Outcomes (EPO) scale that assesses all four of these dimensions. Having established the scale in earlier work as both reliable and valid, we conduct two studies here that investigate its relationships with obesity, health consciousness, and self-control.

### **Study 1**

Surprisingly little work has been done to investigate whether obese populations have characteristic thought patterns that are different from those of non-obese individuals (Friedman and Brownell 1995). Research has suggested that people of normal weight might use aversive thoughts to regulate eating behavior, while obese people might not be able to self-monitor in this manner (Krieshok and Karpoowitz 1988). Furthermore, Heatherton and Baumeister (1991) argued that binge eating occurs as a result of a narrowed focus on immediate sensations and removal of long-range concerns and implications from awareness. These findings imply that people who think about future implications, negative long-term results, and desired positive goals might be less likely to be obese, since they exercise self-control, refrain from overeating, and engage in diet related behaviors.

We predict that obese people consider potential positive and negative consequences to a smaller extent than non-obese people, and therefore should score lower on the EPO scale. To test this possibility, we collected data from obese and non-obese individuals and compared their responses. Subjects were 54 obese (body mass index (BMI) of 30 or more) and 46 non-obese hospital and university staff members. As expected, obese participants scored significantly lower than non-obese participants on all four dimensions of the EPO scale. These findings confirm our predictions that obese people are less inclined than non-obese people to generate and evaluate potential positive and negative consequences.

### **Study 2**

Study 1 shows that obese individuals have a lower tendency to elaborate on potential decision outcomes than non-obese individuals. One explanation for this finding may be that non-obese individuals are more likely than obese individuals to exercise self-control, and as a result lead a healthier lifestyle. To test this hypothesis, we conducted Study 2 to examine whether elaboration on potential outcomes is related to self-control, as well as different aspects of a healthy lifestyle.

We administered the EPO scale to 260 adults ranging in age from 20 to 67 years. We also measured an individual's tendency to apply self-control (Rosenbaum, 1980) and a number of questions measuring various aspects of a healthy lifestyle (including frequency of consuming

fruit and vegetables, salty snacks, sweets, alcohol, and cigarettes, and frequency of engaging in physical activity). Results from a series of regressions confirmed that a person's tendency to elaborate on potential outcomes predicts the extent to which they engage in self-control behaviors, as well as the frequency with which they consume healthy food, drink alcohol, smoke, and exercise. The EPO scale had predictive ability above and beyond other measures such as impulsiveness, tendency to focus on the immediate versus the long-term consequences, risk aversion, and optimism.

The findings from these two studies point to the potential positive effects of considering the consequences of one's decisions. Considering potential negative consequences and desired outcomes might prevent people from engaging in deleterious behaviors like binge eating, drinking, and smoking and encourage them to engage in desired behaviors like eating healthy and dieting. Thus considering the consequences on the part of consumers might prevent negative and dangerous consequences such as obesity.

### *Effect of anti-obesity media on body image and antifat attitudes*

#### *Laura A. Jakul and Norah Vincent*

Body image disturbance is prevalent in Western culture, and stems from many factors including low self-esteem, the disparity between one's physical appearance and social standards of beauty, peer influence, family environment, teasing about physical appearance as a child, and media exposure (Polivy & Herman, 2002). The impact of the media has been extensively studied as a potential risk factor for body image disturbance, particularly the role of exposure to ultra-thin females in the media (e.g. Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). Widespread exposure to the media has many potential ramifications because the media carries messages about the social norms regarding the importance of physical appearance, the role of physical appearance as a central component of femininity, the stigma surrounding obesity, and the thin ideal (Striegel-Moore & Franko, 2002; Tiggemann, 2002). Research supports the connection between greater exposure to media espousing the thin ideal and greater body image disturbance.

In contrast to the attention thin-ideal media has received in the research literature, obesity media has been largely overlooked. This is surprising because the number of anti-obesity media messages is rapidly increasing (International Food Information Council, May, 2004), and stigma toward obesity is prominent in the media (Hebl & Mannix, 2003). Furthermore, one study showed that exposure to television media in which obesity was punished led to increased body image disturbance (Harrison, 2001). Despite this, the impact of anti-obesity media on body image disturbance and antifat attitudes has not been comprehensively evaluated using a popular form of media such as newspaper advertisements.

Several theories have been developed to explain the impact of the media on body image disturbance including appearance schematicity, social learning theory, social comparison theory, and self-discrepancy theory. Although not a theory of body image dissatisfaction, Weiner's (2000) Attribution theory can be used to understand the impact of making internal attributions about excess weight and obesity. According to Weiner's theory of causal attributions, following a success or failure, a search is undertaken to find the cause of the outcome (Weiner, 2000; Weiner, Perry & Magnusson, 1988). Beliefs about the cause of an outcome affect perceptions of responsibility, which in turn, produce feelings and also affect behaviour. Specifically, if exposure to anti-obesity media leads some individuals to feel dissatisfied with their body, and they make

an internal attribution for their weight or shape, they may blame themselves and experience greater body image disturbance. Additionally, it is reasonable to expect that individuals who judge themselves harshly may also be more critical of individuals who are obese for failing to control their weight. Therefore, it was anticipated that individuals who experience more body image disturbance may also endorse more antifat attitudes.

The present research examined whether exposure to anti-obesity media contributes to body image disturbance and antifat attitudes, and whether attributing obesity to internal factors, an event often provoked by anti-obesity media, leads to more negative evaluations of body image and more antifat attitudes. Participants were randomly assigned to read either an anti-obesity message (condition 1), an anti-obesity message that also espoused the controllability of weight (condition 2), or a health-anxiety placebo message (condition 3). Participants were assessed on measures of body image disturbance and anti-obesity attitudes before and after the experimental manipulation, as well as at one-week follow-up. Using four multivariate analysis of covariance procedures, results showed that reading newspaper articles about obesity improved antifat attitudes except when the message that weight is controllable was included. Results also demonstrated that high drive for thinness is a pre-existing characteristic that tends to improve body image disturbance, negative eating attitudes, worry and food avoidance, after exposure to health-related media. In addition, those who initially perceived themselves as underweight were more likely to have improvements in body image disturbance after exposure to health-related media.

Downward social comparison processes may help to explain these findings. When participants read the articles about obesity, they may have felt somewhat relieved that they were not obese and may therefore have improved their perceptions about themselves. Indeed, research in other health domains has found that downward social comparison is often employed to improve mood (e.g. Affleck, Tennen, Urrows, Higgins, & Abeles, 2000). However, exposure to media suggesting that weight is controllable attenuated the positive effect of downward social comparison, which was observed when participants were exposed to information about obesity or about a health problem unrelated to weight. Reading about the controllability of weight may have reminded participants that, if they did not implement the weight control strategies described in the obesity plus controllability of weight article, they may risk weight gain. The reminder of personal responsibility for preventing the negative outcome of weight gain may have extinguished the positive effects of downward social comparison.

The results of the present study have implications for the ways in which obesity media should be presented to the public. The results indicate that obesity media may help to improve body image and antifat attitudes when there is no message that weight is controllable. Media concerning obesity could therefore potentially be improved by promoting a healthier message about weight, emphasizing that not all people can fall into a predetermined weight range defined by the Body Mass Index, and that an appropriate weight is one that the body adopts as a result of a healthy lifestyle, and with the help of a health professional (Weight Realities Division of the Society for Nutrition Education, 2003). In order to capitalize on the possible positive impact of anti-obesity media, this healthy message about weight should be used in relation to body image regardless of the size of the target population, instead of promoting the idea that weight is entirely controllable.

### **The influence of the ‘unhealthy = tasty intuition’ on food consumption decisions**

Rajagopal Raghunathan, Rebecca Walker and Wayne Hoyer



Understanding the effects of food consumption habits on health has emerged as a topic of great significance for policy makers in recent years, particularly in the US, where obesity is prevalent (Hedley et al., 2004). The question of why consumers continue to partake of large quantities of unhealthy food despite the negative consequences of doing so has piqued the interest of academics as well (e.g., Balasubramanian and Cole, 2002; Kozup, Creyer, and Burton, 2003; Seiders and Petty, 2004). Previous findings in this area are consistent with the idea that people over-consume unhealthy food either because they are unaware of the negative consequences of doing so (presumably because of poor marketing and/or presentation of nutritional information) or because they lack the will power to resist such foods. In what we believe is the first rigorous empirical demonstration of its type, our findings indicate that, in addition to these factors, a more subtle force may be at work: consumers may over-consume foods that they perceive to be unhealthy because they assume that such food will taste better.

Based on the idea that people assume an inverse relationship between tastiness and healthiness—an assumption that we term the Unhealthy = Tasty intuition—we hypothesize that when information pertaining to assessing the healthiness of food items is provided, foods perceived to be less healthy will be: (1) inferred to taste better, (2) enjoyed more during actual consumption, and (3) preferred in a choice task when a hedonic goal is more (vs. less) salient. Results from three controlled experiments confirmed our expectations. Participants in Experiment 1 inferred that the less healthy an item, the better its taste. Participants in Experiment 2 derived greater actual enjoyment from consuming food that was portrayed as less healthy than did participants who consumed the same food but were told that it was a relatively healthy item. Finally, participants in Experiment 3 exhibited a tendency to choose an entrée portrayed as more unhealthy when they were prone to seeking hedonic (enjoyment) goals.

Our findings attest to the robustness and generality of the influence of the Unhealthy = Tasty intuition. Our predictions were confirmed across three different types of food products, three types of judgment tasks (inferences, enjoyment, and choice), and two conceptually different types of unhealthiness manipulations.

Perhaps our most significant theoretical contribution, which also points to the robustness of the influence of the Unhealthy = Tasty intuition, stems from our finding that the effects of the intuition are obtained both among consumers who report believing that healthiness and tastiness are negatively correlated and, albeit to a lesser degree, even among those who do not report such a belief. This finding indicates that the influence of the intuition may lie outside of the awareness of consumers making judgments about what to consume. This finding raises the disturbing possibility that consumers may be unaware of *why* they seek and over-consume food that is perceived to be or portrayed as unhealthy. Without such awareness, controlling one's consumption patterns becomes that much more difficult.

## **REFERENCES**

Due to space limitations, references will be made available upon request.

## **Session 5C (Illusions Dance Club)**

### **Categories in Context: How Categories and Categorization Impact Consumer Choices**

*Chair: Ülkümen and Vicki G. Morwitz, New York University*

Motivated Assimilation and Contrast in Category-Based Decision Making

*Cait Poyner, University of South Carolina*

*Diehl Kristin, University of Southern California*

The Role of Positioning in Building Evolutionary Bridges for Revolutionary Products

*Steve Hoeffler, Malhotra Claudia K. University of North Carolina – Chapel Hill*

*Moreau Page C. University of Colorado, Boulder*

Broad Mind-Sets to Broad Baskets: The Effect of Manipulating Category Width on Preferences for New Products

*Gülden Ülkümen, Morwitz Vicki, Chakravarti Amitav, New York University*

### *Description of the Proposed Session*

The world that a decision maker encounters comprises of a vast collection of objects and events that can be infinitely partitioned and generalized. Indeed, decision makers either adopt or encounter different categorizations of their stimulus world all the time. These partitionings can be a function of innate individual level tendencies such as category width (Pettigrew 1951), motivational factors driving the decision maker, or simply externally imposed constraints of the decision environment. Two questions are of seminal importance in this domain: (a) how do consumers use their knowledge of categories to make inferences about options in a choice set and to make purchase decisions, and (b) what are the consequences of manipulating the characteristics of these internally generated or externally imposed categories on perception and decision-making? The purpose of this session is to present recent research on categorization and consumer decision making that help answer these two questions. Together these papers demonstrate the scope of categorization effects on consumer choice and the consequences of these effects for product decisions, posit and provide evidence for different psychological processes underlying these effects, and outline the limiting conditions for these effects. Decisions to adopt a new product, the willingness to pay for it, and the cognitions concomitant to these decisions are as malleable as the underlying categorization process. We also provide evidence for different psychological processes underlying these effects, and outline the limiting conditions.

In this special session, we have three papers that address different aspects, and provide distinct perspectives on the impact of categories and categorization on consumer choice and consumers' perceptions about new products. In all three papers, the nature of categories is manipulated and the research examines the effect of these manipulations on a variety of outcomes. Specifically, the three papers employ different approaches for manipulating

categorization: by using differentially organized choice sets, cueing category labels in ads or by exposing consumers to environments of varying detail. In the first two papers the nature of externally-provided categories is manipulated, while in the third paper the nature of internally generated categories is manipulated. These papers demonstrate the effect of categorization on consumers' processing strategy and on a multitude of decision outcomes such as attitudes (i.e., overall evaluations, perceived innovativeness), purchase intentions, willingness to pay, and choice.

In the first paper, Poynor and Diehl manipulate the structure of externally-provided categories (taxonomic or goal-based organization of choice alternatives), and examine the effects of this manipulation on consumers' processing strategies, attribute weights and product choice. They find that while taxonomic groupings promote contrast effects, goal-based groupings prompt consumers to assimilate alternatives to one another in order to make a choice. Subsequent choice in taxonomic groupings favors the option judged best on the most important attribute, while in goal-derived groupings, maximal attribute values are less important to the decision maker. Also, their results suggest that while, in general, categorical organization facilitates decision-making over uncategorized sets, taxonomic and goal-based categorization structures differ in the effort required during consideration set formation and ultimately, overall evaluations of choice difficulty.

The second paper by Steve Hoeffler, Page Moreau, and Claudia Kubowicz examines how consumer preference for a new product is influenced by the nature in which the firm suggests to consumers it should be categorized. The firms can provide cues in their ads as to how a radically new product should be categorized by the consumers. This paper examines (1) whether or not the product should be positioned as a member of a known, familiar category and (2) whether the

product's radical (e.g., non-prototypical) features or their less radical (e.g., more prototypical) features should be highlighted in the ad. They find that positioning a new product within a familiar category and highlighting less radical features yields higher preferences than does positioning the same product as a pioneer in a new category with radical features. Perceived innovativeness fully mediates the impact of the different positioning strategies on evaluation.

The third paper by Ülkümen, Morwitz, and Chakravarti demonstrates that a decision maker's proclivity to broadly or narrowly categorize the universe of stimuli that they encounter (i.e., category width) has important consequences for both basic cognitive behaviors and more substantive consumption decisions including new product adoption. This research introduces two manipulations of category width that consistently and reliably alter participants' categorizing behavior, their risk perceptions, and their preferences for new products. They show that compared to narrow categorizers, broad categorizers are more willing to accept the risk associated with including an uncertain object into a category, have more favorable attitudes and greater intentions to buy new products, and are willing to pay 2.5 times more for a basket of new products. The results further show that category width manipulations work mainly by altering the value consumers place on similarities and differences between new and existing products, rather than directly influencing similarity perceptions.

Although the papers in this session adopt very different perspectives, their findings converge on a number of dimensions. First, all three papers demonstrate that both internally generated and externally provided categories may lead to context effects by differentially promoting assimilation and contrast within these categories. Different contexts can prompt consumers to test for similarity or dissimilarity among alternatives, affect how innovative the consumers perceive a really new product to be, and alter the value consumers place on similarities

and differences. All three papers also suggest that such categories can generate assimilation as well as contrast effects, even given identical stimuli or underlying assortment sets. Finally, all three papers challenge past conceptualizations of categories as uniformly innocuous and beneficial, finding instead that certain categorizations may inhibit consumers' ability to maintain stable preferences and choice criteria, or may unduly complicate the decision-making process. We believe that bringing these papers together will spark discussion regarding novel applications of category research. The session also demonstrates that categorization-related effects have important consequences for consumer researchers, and for firms marketing new products.

### ***Audience***

The potential SCP audience for this session is quite broad. This session will be of interest to researchers in the following areas: categorization, similarity judgments, analogical reasoning, new product adoption, and decision making. In addition, it will be of interest to practitioners interested in factors influencing new product adoption, and to public policy officials concerned with unintended influences of survey measurement.

### ***Level of Completeness***

For all three papers, the theorizing has been completed, and analyses of all experiments are complete. The first paper involves two experiments, the second paper involves three experiments and the third paper involves four experiments. Since all three papers are completed or close to completion, we expect this to be an interesting and high quality session.

### ***Discussion Leader***

Art Markman will be the discussion leader for this session. Art is an expert on similarity perceptions, analogical reasoning, categorization, and decision-making. His numerous articles have appeared in leading psychology, consumer behavior, and marketing journals. Art thus has a unique perspective for discussing these papers and leading a discussion about an appropriate

research agenda for continued work in this area. During the discussion, Art will also discuss some of his current research on psychological influences on perceptual classification, and their implications for consumer behavior research.

### ***Plan for the Session***

Our goal for the session is to give each presenter sufficient time to clearly present his or her findings, to encourage audience interaction with the presenters, and to facilitate a discussion about future research on categorization and consumer choice. We plan to allocate the session time in the following manner. Each paper will be presented for 20 minutes. We will leave 15 minutes at the end of the session for a general audience discussion lead by Art Markman.

### ***Summary***

In sum, while all of the research addresses how categories and categorization influence consumer choice, each provides different conceptual contributions. We believe that by uniting researchers from varying backgrounds, we will not only appeal to a broad cross-section of SCP members, but also make an important contribution to theory. By highlighting the commonalities in research questions and interests among these areas, we hope to provide significant insights and the foundation for a future research agenda.

### Abstracts

#### **The Role of Positioning in Building Evolutionary Bridges for Revolutionary Products**

Steve Hoeffler, Page Moreau, and Claudia Kubowicz

For a company introducing a really new product (RNP), one of the most important decisions is how to position it most effectively in the marketplace. Despite its ubiquitous coverage in marketing texts, cases, and courses, the basic tenets of product positioning espoused in teaching materials have received only limited research attention in the academic marketing journals. Scholars agree that product positioning is the “act of designing the company’s offer and

image so that it occupies a distinct and valued place in the target consumer's mind" (e.g., Kerin and Perterson 2004, p. 159; Wilkie 1994, p. 296). This definition emphasizes the importance of a brand or product's distinctiveness, and in the context of an RNP, appears to endorse a strategy which introduces the new product as the creator of an entirely new category.

In a recent *Harvard Business Review* article, however, Keller, Sternthal, and Tybout (2002) warn against too much attention placed on differentiation in product positioning, particularly if a product's positioning on its points of differentiation (POD) comes at the expense of its points of parity (POPs). In *Strategic Brand Management*, Keller notes that "a starting point in defining a competitive frame of reference...is to determine category membership" because "membership indicates the products or sets of products with which a brand competes" (p. 138). In this research, we use two types of category manipulations (e.g., labels and features) to examine their independent and joint effects on consumers' preferences for innovations.

In three experiments, we manipulate (1) whether or not the product is positioned as a member of a familiar category and (2) whether the product's radical (e.g., non-prototypical) features or their less radical (e.g., more prototypical) features are highlighted in the ad. We consistently find an interaction between these two factors such that positioning a new product within a familiar category and highlighting less radical features yields higher preferences than does positioning the same product as a pioneer in a new category with radical features.

### **Motivated Assimilation and Contrast in Category-Based Decision Making**

Cait Poynor and Kristin Diehl

This research investigates how providing different external categorical structures (taxonomic or goal-based) impacts consumer choice. Particularly, we compare the processing strategies adopted in taxonomic groupings, which are organized around shared attributes of the



alternatives, to strategies adopted in “goal-derived” groupings (Medin and Barsalou 1981) which are organized around shared benefits or occasions of use (Desai and Ratneshwar 2003, Pechmann, Ratneshwar and Shocker 2003).

We argue that when individuals encounter an assortment organized in taxonomic groupings, perceptual or structural similarities are made highly salient. Therefore, consumers adopt an information processing strategy which enables them to differentiate among alternatives. That is, consumers will adopt a contrast-focused processing strategy when choosing from taxonomic groups. We also hypothesize that items with more extreme attribute values, being easier to differentiate from others in their category, will be more favored in choice when viewed in taxonomic groups. Conversely, when the identical assortment is organized into goal-derived groupings, the common functions or benefits of items are made highly salient and perceptual or attribute-level similarities are less salient. Therefore, consumers adopt an information processing strategy which enables them to find other bases of similarity on which items may be compared. As each base of comparison is identified, we suggest that items being considered will tend to be assimilated to one another.

Explicit and implicit measures from two experiments demonstrate that processing taxonomic groupings creates contrast effects among alternatives, while processing goal-based groupings prompts consumers to assimilate alternatives to one another. This pattern is seen both with respect to local (inter-item) and global (assortment-wide) perceptions of similarity and variety. In addition, we find preliminary support for our prediction that items with more extreme attribute values are more favored when viewed in taxonomic than in goal-derived sets,

particularly on vector attributes. Future research will consider additional downstream consequences, including differential effects on price sensitivity.

### **Broad Mind-Sets to Broad Baskets: The Effect of Manipulating Category Width on Preferences for New Products**

Gülden Ülkümen, Vicki Morwitz, and Amitav Chakravarti

Through four experiments, this paper demonstrates that a decision maker's proclivity to broadly or narrowly categorize the universe of stimuli that they encounter (i.e., category width) has important consequences for both basic cognitive behaviors and more substantive consumption decisions such as new product adoption. We introduce two manipulations of category width (CW) that consistently and reliably alter participants' categorizing behavior and their preferences for new products. Our first method is primarily a manipulation of the finegrained nature of an unrelated context, which precedes the target decision task. As a second method of manipulating CW, we utilize a procedural priming task in order to sensitize participants to either similarities or differences between objects. We find that compared to narrow categorizers, broad categorizers have more favorable attitudes and greater intentions to buy new products, and are willing to pay 2.5 times more for a basket of new products. We further show that the effect of the CW manipulations is mediated by risk perceptions, where those manipulated to have a broad CW were more concerned about the risks of not purchasing a desirable product than those manipulated to have a narrow CW, and it was the difference in these risk perceptions that led to differences in willingness to buy new products. Finally we find that the category width manipulations work mainly by altering the value consumers place on similarities and differences between new and existing products. Although narrow and broad categorizers did not differ in their similarity judgments, dissimilarity was viewed negatively by narrow categorizers and positively by broad categorizers.



Perceptual Processing of Product Design Information: Implications for Brand Categorization"

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**Short Abstract:**

The authors propose a theoretical framework for the perceptual processing of information picked up from product design elements (such as product form) and its influence on consumers' conceptual knowledge and categorization of brands. The proposed theory of consumer knowledge and brand categorization draws from the ecological approach to visual perception, principles of object recognition by components in perceptual psychology, and the emerging perception-based theory of cognition as a perceptual symbol system. The authors describe three bases of brand categorization derived from product design information, provide examples of each, review empirical findings, and discuss implications for consumer research and new product design.

## **Perceptual Processing of Product Design Information: Implications for Brand Categorization**

Despite the increasing importance of aesthetic elements of product design in making products and brands more appealing than others, few marketing or consumer researchers have integrated product design into a more general marketing-theoretical framework (for exceptions, see: Bloch, 1995; Veryzer, 1993; Wagner 2000). Product design often plays a primary role in creating the identity and value of brands, e.g., the characteristic styling of Alessi kitchen equipment or the typical shape of a Piaggio Vespa motor scooter, which have become defining elements of the entire brand. Recent research suggests that there are at least three central relationships between design and brands (Kreuzbauer and Malter 2005). First, designs that are aesthetically appealing lead to positive brand evaluations. Second, design facilitates product and brand categorization and also influences consumer beliefs about the product and brand (Bitner, 1992; Bettman, 1979; Berkowitz, 1987). Recognition of a new product as belonging to a certain brand category is strongly influenced by brand-typical design attributes. Third, design elements communicate information about the specific functions of a product and how people can physically interact with and use the product or specific brand.

In this way, design elements constitute essential parts of brand concepts, which are stored in long-term consumer memory. Some of these elements are so familiar and accessible (e.g., the shape of the Coke bottle) that when perceived they immediately cue recall of masses of knowledge about the particular brand. Thus design, which we define as the form or shape of a product, to a great extent influences the process of brand concept development, that various product signals become transformed into a clear and unmistakable brand construct in consumer memory. One of the primary functions of this conceptual understanding of a brand is that it facilitates a consumer's identification of a new product as a member of a particular brand

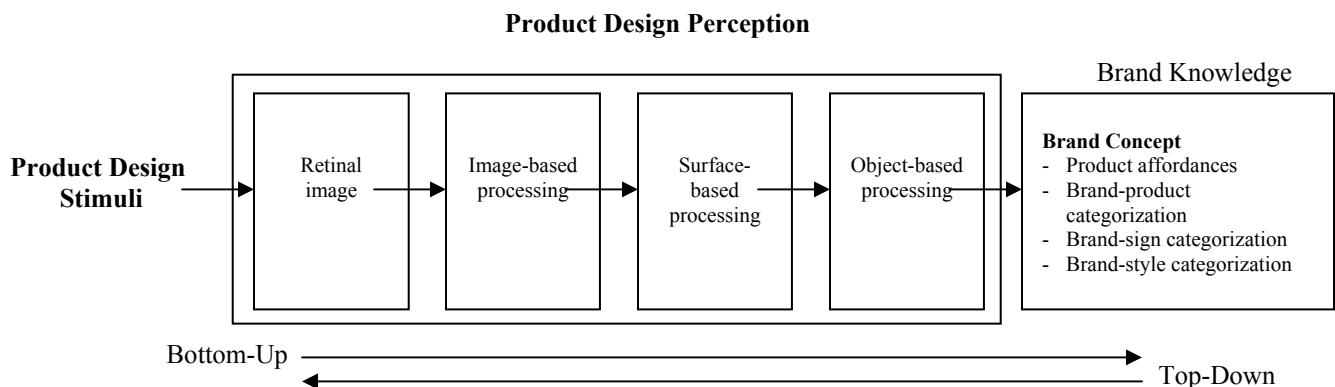
category. In this paper, we examine consumer information processes that transform product design information into a brand concept, based on a perceptual theory of how specific elements of product design play a key role in the process of brand categorization (i.e. determining whether product X is member of brand Y).

Most brand research based on an information processing approach focuses on a presumed hierarchical relational structure of brand knowledge (e.g., Keller 1998). We believe a proper understanding of how product design becomes embedded in brand knowledge also requires consideration of perceptual processes. In the present context this means how product design information is “picked up” by human sensory systems and integrated into a consumer’s conceptual understanding (knowledge) of a brand. More specifically, we propose a general theoretical framework of consumer information processing from product design elements and its effects on brand categorization. We focus on the process by which product design signals are visually perceived and become mentally represented and organized as brand concepts within consumer memory (see Figure 1). We further discuss the subsequent influence of product design information on brand categorization. The proposed framework can be used to study possible consumer response to a range of new design alternatives or extensions of existing brands.

### **A Framework for Product Design Information Processing**

According to cognitive science and most academic brand literature, brands can be considered cognitive constructs relating to a certain company's product offerings (e.g., Keller, 1993; Meffert, 1998; Aaker, 1996). Thus, product and brand knowledge stored in long-term memory constitutes a mental *concept* (Anderson, 2000; Barsalou, 1992a; 1999). In general, a concept is the knowledge and accompanying processes that allow an individual to mentally represent an entity or event adequately (Barsalou, 1999). For instance, a person's concept of *car* is their

mental representation of this specific entity. Yet the car concept is not a simple picture in the mind of one or more perceived cars, but rather an organized unit of a *general car* - derived from several prior car experiences - which enables the individual to identify other objects with similar attributes to cars (Barsalou, 1999; Mandler 1992). Consequently, concepts determine whether or not a new object or event belongs to a certain *category*, whereby a category is a set of related entities from any ontological type (e.g., *robins, sweaters, weddings, plans*) in the human brain (Barsalou, 1993; 1999; Lakoff 1987). Thus, a concept is the organized set of attributes, features, rules and relations which represent an entity or event, e.g., the concept that for car might, in part, include the features *4-wheels, sheet metal, consumes diesel fuel or gasoline*. But concepts, and hence rules, for category membership may vary from context to context (Barsalou, 1983). For example, the car concept constructed on a different occasion might include the features *4-wheels, synthetics, consumes diesel fuel or gasoline or electricity*.



**Figure 1: Framework for product design information processing (adapted from Palmer, 1999; Gibson 1979)**

As the framework in Figure 1 shows, to gain a proper understanding of how product design stimuli affect the development of specific brand concepts and thus produce various brand categorization effects, we must consider aspects of both (1) perception and (2) knowledge representation and organization. Prior scholars of brand knowledge representation and



organization (e.g., Keller, 1993; Sujan, 1985; Zaltman, 1997; Lawson, 1998) have applied some findings from cognitive psychology but have paid little attention to product perception in general (cf. Veryzer, 1993; Veryzer and Hutchinson, 1998) and largely neglected the role of design in brand perception (e.g., Keller, 1998; Mowen and Minor, 1998). While general *gestalt* principles (e.g., Wertheimer, 1912; 1924; Köhler, 1947) were articulated in the early 20<sup>th</sup> century, these and more recent theories of visual perception and object perception from perceptual psychology (e.g., Marr, 1982; Biederman, 1987; Hoffman and Richards, 1984; Goldstein, 1997; Palmer, 1990; Treisman, 1969; 1993) have not been integrated into theories of consumer information processing or brand concept development. In contrast, our research specifically examines the role of perceptual processing of product design information in brand categorization.

How do consumers process perceptual information such as product design elements? Within product design perception, a process of *selective attention* focuses consumers' information processing on information relevant to a particular goal (Barsalou, 1992a). As shown in Figure 1, the process of perception passes through several stages (retinal image, image-based stage, surface-based stage, object-based stage). Whenever stimuli are considered relevant, attention is selectively focused on them and concepts are developed and stored in memory. In parallel to this bottom-up process, an existing concept, in a top-down manner, influences the attention to and perception of particular stimuli. Consequently, both bottom-up processes and top-down processes influence product and brand perception. Thus, product and brand perception is, to a large extent, controlled by previously stored brand knowledge, as it determines the consumer's 'interest' and, thus the attention that provides guidance in perceiving specific product stimuli. Therefore, with the exception of the retinal brand impression, a consumer's attentional

processes operate at each individual stage of product and brand perception where processing capacity is allocated to certain product stimuli (cf. Bettman 1979; Mowen and Minor 1998).

### *Perceptual Psychology and the Processes of Product Design Perception*

As suggested by theories in perceptual psychology (e.g., Biederman, 1987; Marr, 1982; Palmer, 1999; Treisman, 1993) brand design perception follows a process of four stages. The first describes a 2-D *retinal image* which is a first impression of visual product stimuli that are projected to the viewpoint of the observer's eyes. A retinal image is perceived without the consumer's attention, and the information is unstructured and 'uninterpreted' (Julesz, 1984; Treisman, 1993). In the second stage, the 2-D retinal brand impression is further processed, so that elements such as lines and edges are detected and "sharpened" (*image-based stage*). Further in the *surface-based stage*, general surface and spatial information is recovered. True 3-D processing first occurs in the final stage, called the *object-based stage*, since the brand perception process does not end with the mere representation of all the visible surfaces. Instead, it is assumed that during perception surface information is related to general stored knowledge about the intrinsic nature of the 3-D object (Palmer, 1999). An example would be aspects of products that are occluded from the current viewpoint (e.g., the backs or undersides of a camera, TV, car, bottle, etc.). Thus, by simply perceiving the curved surfaces of a bottle, the observer is able to make clear predictions regarding the probable appearance and properties of the back of the bottle. Therefore, hidden assumptions about the nature of the visual world are also required to enable the inclusion of information about unseen surfaces or parts of surfaces.

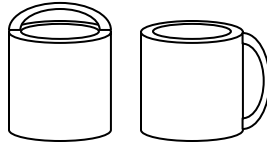
There is also a growing consensus in recent research (e.g., Baylis and Driver 1995a, 1995b; Bennett and Hoffman, 1987; Biederman, 1987; Biederman and Cooper, 1991; Hoffman and Richards, 1984; Hoffman and Singh, 1997; Marr, 1977; 1982; Marr and Nishihara, 1978;

Palmer, 1975; 1977; Tversky and Hemenway, 1984) that representing the functions of an object involves dividing the object's shape into its parts, leading perceptual psychologists to seek ways to recover the part structure of an object. Once a set of parts has been identified, higher-level parts can then be constructed by grouping together the more general parts. Biederman (1987) introduced a recognition-by-components (RBC) theory of object perception and recognition whereby objects can be specified as a spatial arrangement of so-called "primitive," or primary, volumetric components, which he called *geometric icons*, or *geons*. The idea behind geons is analogous to speech perception, in which all kinds of words can be coded using a relatively small set of primitive elements, i.e., phonemes (Marslen-Wilson, 1980). In visual perception, the primitive elements (geons) are a modest number of simple geometric components such as cylinders, blocks, wedges, and cones (Marslen-Wilson, 1980). A major assumption of RBC theory is that the mental representation of an expected object (including products) is a volumetric structural description composed of geons. Depending on the size and type of geon, as well as the relationships between several geons (see Figure 2), any kind of object can be represented by the human conceptual system. For example, a geon can be a generalized cylinder (or cone), that is, a volume constructed by sweeping a 2-D shape around an axis (Binford, 1971; Marr, 1982; Biederman, 1987). To determine how a geon-object structure is constructed, one needs a set of rules for designing geons and the relations among them required for constructing a huge number of object representations. For a detailed description of "geon-rules" and other examples of simple object representations, see Biederman (1987) or Palmer (1999).

#### *Organization of Product Design Knowledge and Brand Concept Development*

Of past research on brand knowledge organization (e.g., Keller, 1993; Sujian, 1985) perhaps the best-known framework is Keller's (1998), which distinguishes between two main dimensions:

brand recognition and types of brand associations. Although both dimensions may potentially include aspects of design, neither Keller's model nor other traditional theories of brand knowledge structure (e.g., Meyers-Levy and Tybout, 1989; Sujan and Dekleva, 1987; Mitchell and Dacin, 1996; Olson, 1978; Grunert, 1996) explains how or which types of visual design attributes enable brand recognition or lead to specific brand associations.



**Figure 2: Examples of different object structures composed of the same primitive geons.**

A cognitive theory better able to account for visual knowledge representation is Barsalou's (1999) theory of *perceptual symbol systems* (PSS). In this view, knowledge represented in the human brain is based on an organized set (so-called frames) of *perceptual symbols*, which Barsalou defines as records of the neural activation that arises during perception. Perceptual symbols are neural representations in sensory-motor systems that function either consciously or subconsciously and are also schematic (Barsalou, 1999). Through selective attention, a consumer perceives information and stores in long-term memory a record of the neural state at the time of perception. For example, if selective attention focuses on product design elements, the neurons representing these parts are selected, and a record of their activation is stored (Kreuzbauer and Malter, 2005). Note that perceptual symbols are componential and not holistic (Barsalou, 1999), that is, an object such as a laptop computer is not stored as a whole image but composed of several perceptual symbols that represent design parts (overall shape, monitor, keyboard, touch pad, etc.). Perceptual symbols are further organized within mental frames or schemata, which explain the underlying stability and yet flexible organizational structure of knowledge (for a more detailed description of frames, see Barsalou, 1992a, 1992b).

An important function of a perceptual symbol system is its capacity for constructing mental simulations as a basic cognitive process. That is, related perceptual symbols become organized within a frame, which then functions as a *simulator*, allowing the cognitive system to construct specific mental simulations of an entity or event in its absence (Barsalou, 1999). Thus, a person's mental frame for *computer* can be used to mentally simulate several types of computers based on exemplars that have been previously experienced. Since perceptual symbols are componential, a person is also able to combine different frames and produce novel mixed simulations.

Simulating conceptual combinations that blend various shape and brand concepts produces specific brand categorization effects. We propose three major ways in which product design influences brand categorization through perception: (1) the perception of product affordances; (2) brand-product categorization; and (3) brand-sign categorization. The following sections describe and integrate these three bases of brand categorization into the general framework for processing product design information.

### **Bases of Brand Categorization**

*Product Affordances.* The functional properties of some products are so closely aligned with visually observable characteristics (e.g., product size or shape) that the actions the product affords to the observer, i.e., how the observer can interact with the object or what they do with it, can be directly perceived, or "picked up" by the observer's visual system (Gibson, 1979; see also Brunswik 1952). Examples of such product affordances are the handle of a mixer which affords "grasping" by the observer's hand, or a chair which affords "sitting on" by the observer's body (given its shape and possible movements). During perception of product design elements, affordances may be determined in the surface-based as well as object-based stages. For example,

a smooth texture and surface or an appropriate geon-organization of a handle can afford "grasping" (see Figure 3a). These affordances then become embedded within a particular brand concept. Although these types of products may project certain unambiguous affordances, the essential functional properties of some other products, e.g. mobile phones or computers may be more abstract and cannot be directly perceived. These require additional information from an external source (e.g., product manual, advertising, direct experience of product use) to identify and comprehend the product's 'innate' meaning and functionality. For instance, a consumer can directly perceive that a mobile phone handset affords grasping and carrying, but would need additional input in order to understand its function as a communication and computing device or as a camera.

*Brand-Product Categorization.* Brand-product categorization represents the 'generic' product-brand relationship. Any brand concept consists of both brand-level design information and also information about the generic product category. For example, the Mercedes brand concept contains both brand design knowledge about Mercedes car models and generic knowledge about the general concept of *car*. Brand-product categorization is chiefly determined by geon-structures in the object-stage process. The link between geon-structures and knowledge organization has been experimentally tested by Kreuzbauer and Malter (2005) who showed how motorbike sub-categories (street and off-road motorbikes) can be represented through flexible geon-structures composed of combinations of perceptual symbols in product frames.

*Brand-Sign Categorization.* In addition to purely generic product information, branded products also convey information that is characteristic of a particular brand, such as the lights and grill design typical of a BMW car front. As suggested by semiotics and cognitive semiotics (e.g., Mick 1986; Nöth 1990; Peirce 1931-1958; Kreuzbauer 2002) brand-sign categorization can be

more specifically divided into *brand-symbolic* categorization processes and *brand-iconic* categorization processes. The former occurs when abstract product design elements do not refer to any major external knowledge units except those within the brand concept, e.g. the Volkswagen logo which does not communicate any inherent meaning by itself but simply represents the Volkswagen corporation. In contrast, brand-iconic categorization derives from design elements that originally refer to non-brand specific concepts, for instance the typical front perspective of a BMW car ("BMW-face") that resembles a predator. Such design characteristics may facilitate analogical transfer of meaning from attributes of the predator-concept such as aggressiveness, dominance, and speed to the entire BMW brand concept and hence to all members of the BMW brand category.

During perception and processing of product design, surface-based processing can lead to brand-sign categorization. Once a product's surface has been perceived by the consumer it becomes embedded within the brand concept, which then facilitates brand-sign categorization processes. Surfaces often determine brand-iconic categorization, since they frequently relate to additional non-brand specific knowledge units. For example the surface of a hypothetical "Philips Alessi" mixer (soft and long radii, non parallel; see Figure 3a) suggests an organic body because it shares characteristics with the surfaces of human bodies. Thus, "organic" becomes part of the "Philips Alessi" brand concept. In contrast, there are product surfaces that are so particular to certain brands that reference to other concepts becomes non-specific, e.g., the distinctive characteristic line (surface edge) of the body of a BMW automobile (see Figure 3b). Brand-sign categorization processes are also determined by geon-structures. For example a geon-structure of a Volvo station wagon has a particular form and becomes embedded within the Volvo brand

concept. In order to be perceived as a member of the Volvo brand another automobile would need to consist of a similar geon-structure.



Figure 3a: Philips Alessi surface (soft and long radii; non-parallel)



Figure 3b: BMW surface (abrupt step)

### **Future Research Directions and Product Design Implications**

The proposed framework is a first step toward better understanding how the perception of product design elements influences consumer development of brand concepts and use of brand categorization processes. Future testing of the framework is needed to better understand the relationships and boundary conditions between specific product design characteristics and brand categorization. The proposed linkage between product design and brand categorization also has important implications for product designers seeking to effectively communicate intended product and brand meanings to targeted consumers.



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**10:45am – 12:00 noon Session 6 (Competitive Paper Sessions)**

**Session 6A (Card Room)**

**The Yin and Yang of Consumer Emotions**

Doing Better but Feeling Worse: Looking for the “Best” Job Undermines Satisfaction

*Iyengar Sheena, Wells Rachael E., Columbia University*

*Schwartz Barry, Swarthmore College*

“Success is getting what you want. Happiness is wanting what you get.”

—Attributed to Dale Carnegie circa 1944

Half a century ago, Simon (1955, 1956, 1957) introduced an important distinction between “maximizing” and “satisficing” as choice making strategies. To maximize is to seek the best, requiring an exhaustive search of all possibilities. To satisfice is to seek “good enough,” searching until an option is encountered that crosses the threshold of acceptability. For example, compare the strategies of a maximizer versus a satisficer selecting a TV show from one of 400 cable channels. The maximizer would channel-surf, exploring *all* the channels, spending so much time deciding on a show that little time would be left for viewing. The satisficer would most likely channel surf until he/she encounters the first acceptable show, put down the remote, and actually watch the show. Simon based his distinction on the idea that the limited information processing capacities of organisms made maximizing impossible. In the modern world of almost unimaginable choice, this distinction is even more pertinent (see Iyengar & Lepper, 2000; Schwartz, 2004a; Schwartz, 2004b).

Expanding upon Simon’s classic theory, recent studies by Schwartz, Ward, Monterosso, Lyubomirsky, White, and Lehman (2002) comparing the decision making processes of maximizers and satisficers revealed that those exhibiting maximizing tendencies, like the channel surfer described above, were less satisfied with their decision outcomes than their satisficing counterparts. Researchers asked participants about recent purchasing decisions and used a “maximization scale” to measure individual differences in maximizing tendencies. Their findings suggested that the experiences of maximizers differed from those of satisficers both during the decision making process and when evaluating their final decision outcome. Specifically, while they were involved in the decision making process, maximizers were more

likely to engage in an exhaustive search of all available options and compare their decisions to those of others (Schwartz et al., 2002). Even though maximizers invested more time and effort during the decision process and explored more options than satisficers—presumably in order to achieve greater satisfaction—they nonetheless felt worse about the outcome that they achieved. Results show that maximizing tendencies were positively correlated with regret, depression, and decision difficulty, and negatively correlated with happiness, life satisfaction, optimism, and satisfaction with decision outcomes (Schwartz et al., 2002).

Such differences in the subjective choice making experiences between maximizers and satisficers are attributed to the fact that maximizers create a more onerous choice making process for themselves. Initially, maximizers focus on increasing their choice sets by exploring multiple options, presumably because expanded choice sets allow for greater possibilities to seek out and find the elusive “best.” Yet, as the number of options proliferates, cognitive limitations prevent decision makers from evaluating and comparing all options (Iyengar & Lepper, 2000; Iyengar & Jiang, 2004; Miller, 1956). Identifying the “best” becomes increasingly difficult, compelling maximizers to rely on external (often social) rather than internal standards to evaluate and select outcomes (Lyubomirsky & Ross, 1997). In addition, the inevitability of tradeoffs among attractive options intensifies the sting of passing up one attractive alternative when choosing a more attractive one, and increases expectations about the quality and utility of the chosen alternative.

But, do the very strategies that render maximizers less happy with their decision outcomes also enable them to achieve better objective decision outcomes? Perhaps there is utility associated with the strategic pursuit of real and imagined options, and the careful observation of others’ choice making experiences- utility that may be reflected in the form of more effective

deliberations and objectively better outcomes. Unlike prior investigations of the relationship between maximizing tendencies and decision outcomes, the current investigation examines the effects of maximizing tendencies on both the objective outcome associated with the decision as well as the subjective experience of the decision maker throughout the process.

Thus, expanding upon this nascent literature, the present study allows us to test the hypotheses that during the choice search and selection process, maximizers will invest more heavily in gathering information from external sources (thereby incurring search costs and perhaps prioritizing externally valued criteria) and will fixate more on realized and unrealized options (thereby incurring opportunity costs), both of which together will contribute to more successful decision outcomes, yet also result in greater negative affect and reduced subjective well being.

We chose to test these predictions within the consequential domain of graduating college students' job search processes, which allowed us to examine the influence of maximizing tendencies on both actual and perceived decision outcomes, and afforded us the opportunity to examine reactions to the decision process as decisions were being made. Regardless of the finite number of offers made to job seekers, during the search process itself maximizers face both the search costs and the raised expectations associated with contemplating an almost limitless set of employment possibilities. To determine how a maximizing orientation affects both the *affective* experiences and the *objective* outcomes of the job search process, we measured the maximizing tendencies of participants from multiple institutions during the fall of their final year and subsequently followed them throughout their job search. Specifically, the longitudinal questionnaire study measured both how well applicants actually did and how well they thought they did. This methodology allowed us to test the following predictions: that compared to satisficers, maximizers would desire more options, plan to apply for more jobs, rely more on

social comparison and other external sources of information, obtain jobs with higher expected returns (i.e., salary), but also experience greater negative affect than satisficers throughout the process and at the conclusion of their job search.

## Method

### *Participants*

Graduating students (predominantly undergraduate seniors) were recruited from 11 colleges and universities that varied in geographical region, university rank, and school size. Females comprised 69.7% of the sample. The median age of participants was 21 (range: 20 to 57), and 64% of participants were Caucasian, 26% Asian, and 10% Other. Participants majored in the social sciences (36%), arts/humanities (25%), engineering (16%), natural sciences and math (11%), and business (15%). At T1, 548 participants responded, followed by response rates of 69.5% and 56% at T2 and T3 respectively. Five \$200 prizes were raffled off amongst participants who completed all three surveys.

### *Procedures*

Career services from eleven participating institutions directed students who were just beginning their job searches in November, 2001 (T1) to our survey website. T1 participants were notified via email of our follow up online surveys in February, 2002 as they were completing applications, interviewing, and getting offers (T2), and in May 2002 as they were accepting offers (T3). While it is difficult to calculate the percentage of students who, upon encountering the online advertisement, chose to participate in the survey, consultations with career services staff provided us with numerical estimates of the total number of students who utilized career services in their job search within the given academic year. Since the advertisement was available only to those students who were affiliated with career services between the months of

September and November (approximately 25%), we calculated that response rates ranged from 17.4% to 53.2% across a sampling of participating institutions.

### *Measures*

*Maximizing tendencies.* At T1, participants completed 11 maximization items drawn from Schwartz et al. (2002), each of which were rated on a scale from 1 (Strongly Disagree) to 9 (Strongly Agree) ( $\alpha = 0.6$ ). Two sample items are: “When I am in the car listening to the radio, I often check other stations to see if something better is playing, even if I am relatively satisfied with what I'm listening to” and “When shopping, I have a hard time finding clothes that I really love.” Individual item scores were averaged to create a composite maximizing score. Overall, men ( $N = 166$ ,  $M = 5.48$ ) and women ( $N = 382$ ,  $M = 5.10$ ) from our sample population showed significantly higher maximizing tendencies than those in a recent national adult sample (men:  $N = 3261$ ,  $M = 4.9$ ,  $t = 7.03$ ,  $p < 0.0001$ ; women:  $N = 4692$ ,  $M = 4.77$ ,  $t = 6.28$ ,  $p < 0.0001$ ), a difference which may be at least partly attributable to the age difference between the two samples, as maximization tendencies have found to be negatively correlated with age (Kliger & Schwartz, 2005).

*Option fixation.* We used three measures to examine option fixation. At T1, we measured the number of options that participants pursued: “For approximately how many jobs do you anticipate applying?” Participants provided responses in numerical form. Note that the number of anticipated applications ranged from 1 to 1000, exhibiting extreme right skewness (skew = 7.5) and kurtosis (69.0), and was therefore log-transformed. At T2, we measured participants’ fixation on unrealized options on a scale from 1 (Strongly disagree) to 9 (Strongly agree): “I often fantasize about jobs that are quite different from the actual job(s) that I am pursuing.” At T3, we measured participants’ regret with their choice set size on a scale from 1



(Not at all) to 9 (To a large extent): “I wish I had pursued more options in my job search process.”

*Reliance on external influences.* We created a single composite measure of five items ( $\alpha = 0.70$ ) to test reliance on external influences. At T1 participants were asked: “How much have you been using the services offered by the career services office at your school during the job search?”, “To what extent have you consulted experts' ranking such as "top companies/schools," "best departments," "fastest growing fields," etc.?", “How much do you seek advice from your family regarding the job search (i.e., input, suggestions, etc.)?”, and “To what extent do you compare your own job search process and results to those of your peers?” The question regarding peer comparison was repeated at T2. Participants responded on a scale from 1 (Very little) to 9 (Very much).

*Job market performance.* Participants were asked how many interviews they had received at T2 and T3, how many job offers they had received at T3, and their annual salary (in dollars per year/hour) when they accepted a full-time job offer at T3. In the case of jobs with hourly wages, we determined how many hours per week participants were required to work and converted this information into an estimated annual salary.

*Negative affect.* Participants' negative affect with the job search process was measured at all three time periods. At T1 and T2, participants were asked, “To what extent does each of the following describe how you are generally feeling about the job search process?”, rating each of seven emotions from 1 (Not at all) to 9 (Extremely) (T1  $\alpha = 0.86$ ; T2  $\alpha = 0.89$ ): “pessimistic,” “stressed,” “tired,” “anxious,” “worried,” “overwhelmed,” and “depressed.” At T3, the same question was repeated; however, for those who had accepted job offers, it was modified to read: “To what extent does each of the following describe how you are feeling about the offer you

accepted and your upcoming new job?" and three emotions were added (T3  $\alpha = 0.92$ ): "regretful," "disappointed," and "frustrated." Composite measures for T1, T2 and T3 were constructed.

*Outcome satisfaction.* We measured participants' satisfaction with their accepted job offers by averaging their responses (on a scale from 1 (Not at all) to 9 (Very satisfied) / (Very confident)) on two items: (a) "How satisfied are you with the offer you have accepted?" and (b) "How confident are you that you made the right choice about where to work next year?" ( $\alpha = 0.79, p < 0.0001$ ).

*Demographics and Other Control Variables.* We gathered information on age, sex, ethnicity, family income-level, university-affiliation and rank (as measured by U.S. News and World Report, "Best National Universities," 2001), geographic location, and information on academic standing, including major, overall GPA, and job-related activities (i.e., current stage in the job search process).

## Results

### *Main Effects for Maximizing Tendencies*

As illustrated in Table 3, maximizing tendencies were observed to be positively correlated with increased option fixation, greater reliance on external influences, improved job market performance, and more negative affective experiences. At T1, those with greater maximizing tendencies anticipated applying for more jobs ( $\beta = 0.13, t(537) = 2.35, p < 0.05$ ), however this effect was attenuated amongst those attending high ranked universities ( $\beta = -0.50, t(537) = -2.33, p < 0.05$ ). Among students in top-15 ranked universities, the median for both maximizers and satisficers was 30, while in lower ranked universities, the median was 20 for maximizers and 10 for satisficers. At T2, those with greater maximizing tendencies fantasized more about jobs that they were not pursuing ( $\beta = 0.23, t(372) = 4.48, p < 0.001$ ), such that every one-unit increase in maximizing was associated with a 0.59 increase in this measure. At T3 those with greater maximizing tendencies reported that they "wished that they had pursued still

more options” ( $\beta = 0.18, t(263) = 2.96, p < 0.01$ ), such that every one-unit increase in maximizing was associated with a 0.40 increase in this measure. Additionally, those with greater maximizing tendencies were more reliant on external influences during T1 and T2 of the job search process ( $\beta = 0.17, t(366) = 3.63, p < 0.001$ ).

Indeed, job seekers with greater maximizing tendencies were offered an average of \$7,430 more in salary than their satisficing counterparts ( $\beta = 0.20, t(115) = 2.83, p < 0.01$ ), such that every one-unit increase in the maximizing composite score was associated with a \$2630 increase in the annual salary obtained. Based on a median split of the maximizing scale, the mean salary of maximizing job seekers was \$44,515 while that of satisficing job seekers was \$37,085. This difference in salary between maximizing and satisficing job seekers was unaccounted for by the number of interviews or job offers received, as maximizing tendencies did not prove to be a significant predictor of either number of interviews (T2 poisson regression  $\beta = 0.09, X^2 = 1.43, ns$ ; T3 poisson  $\beta = 0.05, X^2 = 0.55, ns$ ) or offers attained (T3 poisson regression  $\beta = 0.09, X^2 = 1.80, ns$ ).

Greater maximizing tendencies were also associated with experiences of greater negative affect at all three times of the job search process (T1:  $\beta = 0.26, t(535) = 6.32, p < 0.001$ ; T2:  $\beta = 0.18, t(365) = 3.56, p < 0.001$ ; T3:  $\beta = 0.16, t(257) = 2.98, p < 0.01$ ). Those with greater maximizing tendencies also reported less satisfaction with their accepted job offers even when controlling for annual salary achieved ( $\beta = -0.28, t(115) = -2.92, p < 0.01$ ), such that every one-unit increase in maximizing was associated with a 0.43 decrease in reported satisfaction.

#### *Mediators of Maximizing Tendencies*

As illustrated in Table 1, results suggest that the relationship of maximizing tendencies with job market performance and negative affective experience was mediated by a combination

of reliance on external influences and option fixation. Reliance on external influences ( $\beta = 0.27$ ,  $t(115) = 3.41$ ,  $p < 0.01$ ) acted as a partial mediator of the effect of maximizing ( $\beta = 0.15$ ,  $t = 2.19$ ,  $p < 0.05$ ) on job market performance. The positive correlational relationship between maximizing and negative affect was observed to be partially mediated at T2 by logged anticipated applications ( $\beta = 0.21$ ,  $t(365) = 4.14$ ,  $p < 0.001$ ) and fixation on unrealized options ( $\beta = 0.25$ ,  $t(365) = 5.15$ ,  $p < 0.001$ ), and fully mediated at T3 by fixation on unrealized options ( $\beta = 0.10$ ,  $t(257) = 1.81$ ,  $p < 0.10$ ), regret with choice set size ( $\beta = 0.21$ ,  $t(257) = 3.82$ ,  $p < 0.001$ ), and reliance on external influence ( $\beta = 0.18$ ,  $t(257) = 3.01$ ,  $p < 0.01$ ). In fact, the relationship between maximizing tendencies and outcome satisfaction was also fully mediated by fixation on unrealized options ( $\beta = -0.27$ ,  $t(115) = -2.81$ ,  $p < 0.01$ ) and regret with choice set size ( $\beta = -0.34$ ,  $t(257) = -3.80$ ,  $p < 0.001$ ). Even when T1 negative affective experience is included as a control in the regression models, similar results emerge.

#### Discussion

Maximizers do better financially in their job search but feel worse. In their quest for placement after graduation, those with greater maximizing tendencies not only pursue and fixate on realized and unrealized options to a greater degree, but they also rely on more external sources of information than do more satisficing job seekers. These efforts result in higher payoffs; maximizers earn starting salaries that are 20% higher than those of satisficers. Yet, despite their relative success, they are less satisfied with the outcomes of their job search, and more “pessimistic,” “stressed,” “tired,” “anxious,” “worried,” “overwhelmed,” and “depressed” throughout the process. Why?

We suggest that maximizers may be less satisfied and experience greater negative affect with their resulting jobs because their pursuit of the elusive “best” induces them to consider a

large number of possibilities, thereby increasing their potential for regret and/or anticipated regret, engendering unrealistically high expectations, and creating mounting opportunity costs. Such effects may be integral to identifying maximizing as a goal, and may detract from the satisfaction that maximizers ultimately derive from their decisions.

Although we treat maximizing tendencies as a global individual difference measure, it may well be that maximizing strategies to find the “best” are simply a set of learned behaviors or search strategies designed specifically for decision making tasks, and not necessarily even *all* decision making tasks. In fact, mediation analyses demonstrate that individual differences in maximizing tendencies are explained by differences in option fixation and reliance on external sources of information. Nonetheless, whether global or specific, maximizing tendencies seem to cast a long shadow on people’s evaluations of their decision and search outcomes.

Psychologists and economists alike have assumed the provision of choice to be beneficial, as it allows decision makers more opportunities for preference matching, and more generally enables utility maximization. However, the present investigation is part of a growing body of literature that posits that decision makers’ appraisals of their decision outcomes may have less to do with their ability to preference match or increase the expected value of their decision outcomes than it does with the decision makers’ social values (Iyengar & Lepper, 1999), mispredicted expectations during the decision process (Frederick & Loewenstein, 1999; Kahnmen, 1999; Loewenstein & Schkade, 1999; Wilson, 2002; Wilson & Gilbert, 2003), and the affect experienced during the decision process itself (Botti & Iyengar, 2004). Maximizers, then, epitomize the type of decision maker who may overestimate the affective benefits that result from pursuing the best objective outcome, and underestimate the affective costs of a process that involves evaluating as many options as possible and fixating on choices that may be non-

existent. Even when they get what they want, maximizers may not always want what they get. Individual decision makers as well as policy makers are thus confronted by a dilemma: if the subjective well being of the decision maker and the objective value of the decision outcome are at odds, which should be prioritized? What should people do when “doing better” makes them feel worse?

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Table 1: *Regression Analyses Betas*

	1	2	3	4	5	6	7
	Logged Anticipated Applications	Fixation on Unrealized Options	Regret with Choice Set Size	Reliance on External Influences	Salary - Initial Model	Salary-Mediator Model	Negative Affect (T1) - Initial Model
<b>1. Control Variables</b>							
Female sex (0-M; 1-F)	0.03	0.00	0.04	-0.07	-0.16*	-0.11	0.04
Top 15-ranked university	0.73**	0.01	0.02	0.05	0.29**	0.27**	0.11*
Age	0.11*	-0.00	0.13*	-0.17**	0.06	0.10	-0.05
Business major	0.25**	-0.06	0.05	0.33**	0.11	0.03	0.08
Social sciences major	0.24**	-0.08	0.02	0.18	-0.00	0.02	0.08
Science/math major	0.03	-0.16*	-0.05	-0.01	0.08	0.06	-0.01
Engineering major	0.21**	-0.12	-0.06	0.11	0.32 <sup>+</sup>	0.36*	0.06
Education major	-0.01	-0.04	0.00	-0.04	-	-0.20	-0.03
Arts/humanities major	0.12	-0.08	0.08	-0.04	-0.28 <sup>+</sup>	0.20**	0.08
Cumulative GPA		-0.09	-0.18**	0.02	0.19*	0.15*	-
S had already accepted an offer by point of DV measurement	-0.09*	-0.01	-0.18**	0.21**			-0.19**
Salary (in \$10K)							
<b>2. Maximizing Variables</b>							
Maximizing score	0.13*	0.23**	0.18**	0.17**	0.20**	0.15*	0.26**
Maximizing score*Top-15 ranked university	-0.50*						
<b>3. Proposed Mediators</b>							
Logged anticipated applications						-	
Fixation on unrealized options						-	
Regret with choice set size						-	
Reliance on external influence						0.27**	
<b>Full Model R<sup>2</sup></b>	0.14	0.08	0.14	0.28	0.49	0.54	0.13
<b>Δ R<sup>2</sup> vs. Control Model</b>	0.01	0.05	0.03	0.03	0.04	0.09	0.07
<b>Δ R<sup>2</sup> vs. Previous Model of Same DV</b>						0.05	
<b>Model F-Ratio</b>	7.06	2.60	3.34	11.28	10.22	11.29	6.98
<b>Degrees of freedom</b>	537	372	263	366	115	115	535



Table 1: *Regression Analyses Betas*

	9	10	11	12	13	14	13	14
	Negative Affect T2-Initial Model	Negative Affect T2-Mediator Model	Negative Affect T2-Ctrl for Neg. Affect T1	Negative Affect T3 – Initial Model	Negative Affect T3 – Mediator Model	Negative Affect T3 – Ctrl for Neg. Affect T1	Outcome Satisfaction – Initial Model	Outcome Satisfaction – Mediator Model
<b>1. Control Variables:</b>								
Female sex (0-M; 1-F)	-0.01	-0.01	-0.02	-0.04	-0.04	-0.07	0.05	0.08
Top 15-ranked university	0.09 <sup>+</sup>	0.01	0.01	-0.03	-0.05	-0.08	-0.05	-0.04
Age	-0.10*	-0.13**	-0.06	0.00	-0.00	0.01	-0.08	-0.10
Business major	-0.00	-0.02	-0.02	0.05	-0.02	0.02	-0.08	-0.20
Social sciences major	0.02	0.00	-0.01	0.12	0.09	0.08	-0.04	-0.17
Science/math major	0.01	0.06	0.06	-0.08	-0.04	-0.02	0.09	0.02
Engineering major	0.05	0.05	0.05	0.07	0.09	0.09	0.04	-0.14
Education major	0.05	0.05	0.03	0.09	0.10 <sup>+</sup>	0.06	-	-
Arts/humanities major	0.04	0.04	0.01	0.06	0.07	0.06	-0.02	-0.02
Cumulative GPA	-0.03	0.01	0.01	-0.08	-0.02	-0.00	0.20*	0.02
S had already accepted an offer by point of DV measurement	-0.31**	-0.30**	-0.24**	-0.53**	-0.53**	-0.52**	-	-
Salary (in \$10K)							0.12	0.22 <sup>+</sup>
<b>2. Maximizing Variables</b>								
Maximizing score	0.18**	0.11*	0.01	0.16**	0.06	0.03	-0.28**	-0.14
Maximizing score*Top-15 ranked university								
<b>3. Proposed Mediators</b>								
Logged anticipated applications		0.21**	0.04					
Fixation on unrealized options		0.25**	0.15**		0.10 <sup>+</sup>	0.04		-0.27**
Regret with choice set size					0.21**	0.16**		-0.34**
Reliance on external influence					0.18**	0.11*		
Negative Affect T1			0.59**			0.31**		
<b>Full Model R<sup>2</sup></b>	0.14	0.24	0.52	0.35	0.42	0.50	0.16	0.34
<b>Δ R<sup>2</sup> vs. Control Model</b>	0.03	0.13	0.41	0.02	0.09	0.17	0.07	0.25
<b>Δ R<sup>2</sup> vs. Previous Model of Same DV</b>		0.10	0.28		0.07	0.08		0.18
<b>Model F-Ratio</b>	4.70	8.07	25.75	11.18	11.85	15.16	1.75	4.05
<b>Degrees of freedom</b>	365	365	365	257	257	257	115	115

<sup>+</sup> p < 0.10, \* p < 0.05, \*\* p < 0.01

Who Chose the Forgone Alternative: The Effects of Social Comparison on  
Regret

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## Abstract

We argue that regret is likely to be impacted not just by forgone alternatives, but also by social comparison to other individuals. We present three studies demonstrating that the effect of comparison to forgone alternatives is impacted by *who* chose the forgone alternative for both single comparisons and simultaneous comparisons. Cognitive responses examined in Study 1 indicate that integrative and other-focused thoughts are integral to this process. Study 2 examines the impact of simultaneous social comparisons with close others and strangers. Finally in Study 3 the boundary effect of individual differences in attention to social comparison information is found to moderate the effect of social context on regret.

## WHO CHOSE THE FORGONE ALTERNATIVE?:

### THE EFFECT OF SOCIAL COMPARISON ON REGRET

Regret occurs when a forgone alternative is perceived to be better than the selected option (Tsiros 1998). Past research on regret has not examined the nature of the relationship between the decision-maker and the person getting the forgone alternative. This social comparison is the focus of our research. We argue that the social comparison emanating from the relationship between the decision maker and the chooser of the forgone alternative moderates the regret experienced by the decision maker. Incorporating the effect of social comparison on regret may provide theoretical insights that are concealed by assuming that the identity of the person choosing the forgone alternative is inconsequential.

Empirical research shows that regret is experienced if the option selected is worse than forgone alternatives (Tsiros and Mittal 2000). We argue that this experience is moderated by the closeness between the decision maker and the chooser of the forgone alternative. Group identity research finds that when individuals are in a group setting, they may consider the outcome experienced by the group as a collective (Brewer and Weber 1994). Tesser and Campbell (1982) find that when the object of comparison is of low relevance to one's self-definition, individuals reflect upon the outcomes of close others through association and compare their outcome to the outcome of distant others (those who are not physically or psychologically close). Beach et al. (1998) show that pleasantness is greater when a close other outperformed oneself in an irrelevant task than when a stranger outperformed oneself. We argue that regret should be similarly affected by the person who chose the forgone alternative.

In study 1, we assess the effect of who chose the forgone alternative on regret by assigning participants to one of four experimental conditions varying on closeness to other and

outcome. The results of this study indicate that when a downward comparison is made to a forgone alternative, regret is greater for those who are comparing to a significant other than for those who are comparing to a stranger. In contrast, when an upward comparison is made to a forgone alternative, regret is lower for those who are comparing to a significant other than for those who are comparing to a stranger. Analysis of cognitive responses indicates that other-focused thoughts are jointly affected by closeness and outcome, which is consistent with research by Tesser and Campbell (1982). Furthermore, integrative and other-focused thoughts indicate that this effect may also be driven by empathy.

In many situations, individuals, instead of comparing their chosen alternative to only one person, may have to *simultaneously* compare their outcome to both close others and strangers. More interesting is what happens to regret when one simultaneously makes an upward and a downward comparison. We predict that when one is outperformed by a close other, regret will be significantly less when the stranger does worse than when the stranger also does better than the self. We examine this in the second study by using two product categories in a within-subjects design. The results show that the outcome of a close other also impacts regret when *simultaneous* comparisons are made for a close other and a stranger and that the effect of who chose the forgone alternative is not simply additive.

Finally, the third study examines regret in a naturalistic setting where decision makers engage in social comparison and considers the tendency to engage in social comparison as an individual difference (e.g., Gibbons and Buunk, 1999; Lennox and Wolfe, 1984). We posit that the effect of individual differences in social comparison on regret is manifested in one's own satisfaction with their choice and the perception of a stranger's performance via social comparison. Surveying restaurant consumers, we found that regret for individuals who are low

on attention to social comparison is more stable in that another's better outcome does not significantly increase regret when there is low satisfaction with own entrée than those high on attention to social comparison.

This is the first research to demonstrate that *who* chose the forgone alternative matters, which makes a significant contribution to the consumer literature on regret. This effect is examined in situations with single comparisons and simultaneous comparisons and considers the effect of individual differences in attention to social comparison. Furthermore, integral and other-focused cognitive thoughts were found to be integral to this process, but future research should pay particular attention to the underlying cognitive processes that manifest as experienced regret to provide additional insight to this process.

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The Impact of the Guilt Emotion when Benefiting at the Expense of the Seller  
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Abstract

**THE IMPACT OF THE GUILT EMOTION  
WHEN BENEFITING AT THE EXPENSE OF THE SELLER**

Based on theoretical and empirical findings from the psychology literature the current research scrutinized the guilt emotion in situations in which the consumer benefits at the expense of the seller. A first study established that guilt (not shame) is an important affective experience in these situations. A second study investigated the behavioral impact of the guilt experience, combining the interpersonal and intrapersonal conceptualization of the guilt emotion. The findings illustrated that intensifying the guilt feelings (by emphasizing the interpersonal consequences or the violation of norms and standards) decreased the consumer's intentions to benefit at the expense of the seller, confirming the action-control mechanism of the guilt emotion for both views separately. However, when combining the two perspectives, the behavioral effect of the interpersonal notion only remained for the consumer who is unaware of any norm violation. These findings may have several implications for the significance of the guilt emotion in the context of consumer ethics, but also for consumer behavior research in general.

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You Don't Like It, But You Want to Get It  
*Shen Hao, Wyer Robert S Jr., Hong Kong University of Science and  
Technology*

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## **Session 6B (Mirage Bar)**

### **Pot-Pourri of Topics in Consumer Behavior**

Literacy and Consumer Memory

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## Abstract

### LITERACY AND CONSUMER MEMORY

Literacy has been defined as "the ability to exhibit all of the behaviors a person needs in order to respond properly to all possible reading tasks" (Bormuth, 1975). *Functional* literacy refers then to competencies required to function adequately as adults (Kirsch and Guthrie, 1977). Recent research has shown that functionally illiterate consumers exhibit unique cognitive predilections, decision heuristics and trade offs, and coping behaviors (Viswanathan, Rosa, & Harris, 2005). Among these predilections, pictorial and concrete thinking styles suggest that functionally illiterate consumers may be impaired to represent events in terms of abstract, superordinate categories (e.g., semantic memory). Their reliance on concrete context-based thinking and pictorial thinking (Viswanathan et al., 2005) may favor associations with spatio-temporal contexts and representations of physical features (e.g., perceptual memory). It is then hypothesized that functionally illiterate consumers would perform worse on memory tasks than functionally literate consumers, but they will perform better on perceptual memory tasks than on conceptual memory tasks (while no such difference will be observed for functionally literate consumers). In addition, the reliance of functionally illiterates on pictorial thinking should improve their performance on memory tasks using pictorial stimuli compared to tasks using words as stimuli. Thus, it is anticipated that functionally illiterate individuals would show stronger priming effects for pictorial stimuli vs. word stimuli when compared to functionally literate individuals.

### RESEARCH METHOD

Two experiments were used to provide support for the hypotheses developed in this research. Participants were students enrolled at adult-education centers in a Midwestern city. They ranged in age from 16 to 81 and were divided in three groups (zero through fourth grade level, five through eight grade level, and nine through twelve grade level). The lower level corresponded to the functionally illiterate group, the higher level to the functionally literate group, and the group in the middle was used as a comparison group. In experiment 1, adopting a procedure used by Goldinger et al., (2003), 60 participants were presented with brand names either as words or logos (study phase). After a 15 min. distractor task, the test phase asked them to complete a stem completion task (e.g., a perceptual implicit memory task which requires participants to complete the brand name given a partial cue). Half of the brand names presented at study were presented at test in the same format (e.g., word-word or logo-logo) and the other half in the other format (e.g., word-logo and logo-word). Brands at test were presented interspersed among new brands in both cases. The dependent variable was the number of brands presented at study that were reported in the stem completion task. In experiment 2, adopting a procedure similar to that used by Lee (2002), 65 participants were presented with brand names as words (study phase) either alone or within a sentence. After a 15 min. distractor task, the test phase asked them to complete a conceptual priming task (list exemplars from product categories) or a perceptual priming task (e.g., stem completion task). Half of the product categories/incomplete brands at test were the same presented at the study phase, and the other half were filler items. The dependent variable was the number of brands presented at study that were reported either as exemplars of the conceptual priming task or in the stem completion task.

Results from experiment 1 indicated that functionally illiterate participants performed worse in the stem completion memory tasks than literate participants. However, only

functionally illiterate participants showed a higher perceptual priming effect for brands presented at study phase as logos compared to brands presented as words. Results from experiment 2 also showed that functionally illiterate participants performed worse than literate participants and the comparison group. However, the interaction between type of task and literacy level was not significant ( $F < .36$ ), suggesting that illiteracy does not influence performance between conceptual and perceptual priming tasks.

### GENERAL DISCUSSION

This research follows up on recent research on literacy and consumer behavior by examining the relationship between literacy and consumer memory. Results from this research support the notion that organization of environmental stimuli in memory differs between functionally illiterate individuals and functionally literate individuals. Functionally illiterate individuals show lower levels of perceptual and conceptual priming than functionally literate individuals. Shortcomings exhibited by functionally illiterate individuals are partially offset when processing pictorial stimuli. In this case, their reliance on pictographic thinking helps them to exhibit higher priming effects than those showed when processing words. However, their performance still falls below that of functionally literate individuals. Although the hypothesized differential performance between conceptual and perceptual tasks was not supported, we would be cautious to say that functionally illiterate individuals perform similarly in these types of tasks. It is possible that the hypothesized differences can be revealed using different types of tasks. Further research should explore this possibility using pictorial stimuli.

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Situational Influences on Consumption Urges and Impulsive Consumption  
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**DONE**

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Peacocks, Porsches and Thorstein Veblen: Conspicuous Consumption as  
Sexual Signaling  
*Sundie Jill, University of Houston*  
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## Abstract

Three studies examine the links between conspicuous consumption and the goal of attracting a mate. Using sexual selection theory as a framework, conspicuous consumption's function as a sexual signal is explored. Choosing more conspicuous products was predicted by favorable attitudes towards having sex without commitment, particularly among men when their mating goals were activated. Observers perceived men, but not women, to have more unrestricted sexual attitudes if they conspicuously consumed. Discussion considers implications of sexual selection theory for understanding motivations for status consumption, sex differences in consumer behavior, and consumers' impression management processes.

## PEACOCKS, PORSCHEs, AND THORSTEIN VEBLEN: CONSPICUOUS CONSUMPTION AS SEXUAL SIGNALING

As they acquire wealth, people tend to spend an increasing amount on extravagant goods and frivolous luxuries. Sales of products with premium prices and brand names are estimated to be \$350 billion per year, and growing at a rate of 10 to 15 percent annually--even people with limited incomes may scrimp on essentials to purchase premium versions of relatively low cost products such as designer accessories (Silverstein and Fiske 2003). Thorstein Veblen (1899) described public displays of luxuries over a century ago, coining the term “conspicuous consumption.” (CC). CC can be motivated by different forms of impression management, such as signaling one’s professional achievement to clients, or one’s social class to new neighbors. Our research focuses on an under-explored motivation for CC--to impress potential mates.

Previous research on status and CC in the consumer behavior literature has focused on developmental and socialization processes, which influence individuals’ consumption values, such as materialism (Richins 2004; Shrum, Burroughs and Rindfleisch 2005). Such values may predispose individuals to engage in CC as a form of self-expression, or to impress others by displaying cues success (e.g., Belk 1988; Dawson and Cavell 1987). While the content of special possessions varies across cultures and by demographics, humans universally use them to fulfill self-expression needs, signal group membership, and differentiate themselves from others (Wallendorf and Arnould 1988). Veblen (1899) focused on the use of consumption goods to confer prestige upon their owners, by simultaneously signaling class membership and differentiating them from others less materially wealthy than themselves. An evolutionary approach considers CC in light of broader questions about the adaptive significance it may hold, examining the role the display of possessions plays in gaining status and attracting mates.

## CONCEPTUAL FOUNDATION

Evolutionary theorists presume the design of any living organism is ultimately linked to what its ancestors required to survive and reproduce. According to modern functional analyses supported by recent work in cognitive neuroscience, the human brain is comprised of a number of problem-specific psychological mechanisms shaped by the processes of natural selection (Cosmides and Tooby 1992; Sherry and Schacter 1987). Broad-ranging evidence indicates that human learning and cognition operate according to different rules and use distinct neural architectures in processing information about words, faces, tastes, potential threats and so on (Kenrick, Sadalla and Keefe 1998; Sherry and Schacter 1987). Applied to consumer cognition, this modular approach suggests people pay attention to, remember, and weigh information differently when different social goals are active (Bargh 2002, Ferraro, Shiv and Bettman, 2005; Sundie et al. forthcoming). Evolutionary psychological hypotheses, such as the ones tested here, are derived from a nomological network of assumptions, some of which are based on research and theory in biology and anthropology. As we spell out below, we believe this evolutionary nomological network aids in the generation of unique hypotheses about CC.

-----Insert Figure 1 about here-----

Sexual selection is a concept advanced by Darwin (1859) to explain his observations of the elaborate physical ornaments prevalent in some species (such as a peacock's tail). These ornaments are puzzling because they often impede survival rather than facilitate it; requiring substantial bodily resources to grow and maintain the ornaments, and increasing visibility to predators. However, evolutionary "success" is not measured by survival, but by replication of one's genes. Showy ornaments are often reliable costly signals of overall fitness; and therefore are diagnostic in mate choice (e.g., Zahavi 1997; Miller 2000). From this perspective, CC may

function, in part, as a costly signal to potential romantic partners (Miller 2000). Whether CC can help a person achieve romantic relationship goals may depend in part on whether the individual is a man or a woman. Sex differences in mating strategies have been linked to different biological costs for producing offspring, or *differential parental investment*.

The minimum investment required by men and women to produce a viable offspring is markedly different (Trivers 1972)--for a man, one act of sexual intercourse, and for a woman nine months (gestation) plus nursing. Because of this difference, a woman can produce a limited number of offspring during her lifetime, whereas a man could theoretically produce many more. This sex difference leads to differences in the relative value of certain reproductively linked traits in mate selection. A woman's mate value is enhanced cross-culturally if she is young, healthy and physically attractive--traits correlated with fertility (Buss 1989; Kenrick and Keefe 1992; Symons 1992). A man's mate value is enhanced cross-culturally by status, wealth, and features linked to maturity and dominance--cues to the ability to provide resources to his partner and offspring (Buss 1989). Consequently, men may be more motivated to display resources via CC.

A pilot study was conducted with 667 undergraduate students (279 men, 408 women). Participants (Ps) were first given a definition of CC, and then asked to think of a time when they witnessed a person engaging in CC. The data reflect a sex difference in the conspicuous consumer people tended to recall. 79% of men and 59% of women recalled a man as the consumer instead of a woman. This result suggests that there may be a bias in either the incidence of CC by men and women, but it may also suggest different cognitive processes in observers. Perhaps, for example, men and women conspicuously consume in equal measure, but men's CC differentially captures people's attention. In the studies described below, experimental methods were employed to systematically test for such sex differences.

Given the differential emphasis that women place on economic resources in choosing mates, displaying cues to economic resources may be one successful strategy a man can use to attract mates (Schmitt and Buss 1996). If so, the motivation to engage in CC should be linked to mating-related goals, particularly for men. Activating a mating goal directs cognitive and physiological resources towards its achievement (Maner et al. 2005). Considering differential parental investment (DPI), we expected that activating a mating goal would enhance men's motivation to engage in CC more than women's. Li and his colleagues (Li et al. 2002) found that while economic resources are a necessity for women evaluating men as potential romantic partners, they are a luxury for men evaluating women. If people are motivated to send signals in the mating marketplace that are diagnostic, men should be relatively more inclined than women to advertise resources by increasing CC when mating goals are activated.

Positive attitudes towards engaging in an unrestricted mating strategy, as measured by the Sociosexual Orientation Inventory, or SOI (Simpson and Gangestad 1991), reflect a willingness to engage in sexual activity early in a relationship, without commitment. Average scores on this scale are higher for men than women, reflecting men's relative openness to casual sexual encounters (Gangestad and Simpson 2000). This sex difference is consistent with parental investment theory, which holds that the sex investing less reproductively will be less selective in sexual partner choice. Because women are generally less receptive than men to casual affairs, many men would not fare well seeking multiple mates and are better off investing resources in a single partner (Gangestad and Simpson 2000). Such restricted men are more likely to be involved in faithful monogamous relationships, and so are not expected to engage in as much conspicuous advertisement. If CC promotes mating goals, unrestricted men might engage in more CC than restricted men, particularly when focused on mating. Because women should be

relatively less inclined to engage in CC as a mating tactic, little increase in CC is expected for unrestricted women focused on mating. In sum, we predicted this three-way interaction:

**H1:** Individuals with unrestricted sexual attitudes will be more likely to engage in CC, and this effect will be emphasized among men when their mating goals are activated, compared to when they are not.

## STUDY 1

Ps were 231 university students (152 women and 79 men, avg. age 21.8). The experiment followed a 2 (P sex: male/female)  $\times$  3 (goal condition: mating/highly desirable targets vs. mating/less desirable targets vs. neutral/control) between-subjects design. An independent sub-sample of 160 Ps (118 women and 42 men, avg. age 21.6) completed a different survey in which they rated either the first or last 18 of 36 consumption items constituting the dependent variable (on the extent to which they were CC items, with one = not at all CC to nine = definitely CC). Ps in the two “dating service” conditions were told that their student government was starting a dating service to ease the transition for new students; Ps in the control condition examined a housing placement service. Using manipulations of attractiveness and social achievement similar to Gutierrez, Kenrick, and Partch (1999), each P in the dating conditions was shown eight profiles, presumably from the campus dating service. The profiles depicted either less desirable (less attractive, average social success) or highly desirable (very attractive, high social success) targets, as judged by 24 men and women, ages 21 to 31. Profile pictures were evaluated on a one = not at all attractive to nine = extremely attractive scale. Desirable targets were judged as more attractive ( $M_w = 7.2$ ,  $M_m = 6.5$ ) than the less desirable targets ( $M_w = 3.1$ ,  $M_m = 3.5$ ). Ratings for social success, recorded on a one = not at all successful to nine = extremely successful scale, were higher for desirable targets ( $M_w = 7.4$ ,  $M_m = 7.1$ ) versus the less desirable targets ( $M_w = 5.3$ ,  $M_m = 4.1$ ). Ps viewed photos and read profiles of the opposite sex only, with each profile

including hobbies, interests and a “notable accomplishment.” Ps in the control condition viewed photos of dormitories, and read descriptions of each dorm’s amenities (following a format similar to the dating biographies). Ps then evaluated the presentation format, and answered questions about the descriptions and photos they viewed. For example, Ps that had just viewed photos of people rated targets on a one= not at all attractive to nine = extremely attractive scale.

Next, Ps were asked to “provide some information about yourself” to assist the university in learning more about student needs. Ps were asked how they would allocate a \$2000 windfall gain among 36 possible products in 12 categories (e.g., clothing, electronics) varying in conspicuousness (judged by the independent sub-sample). From the budget allocations, an average CC score was calculated for each P, which served as the dependent measure of CC. The score was calculated by taking the average CC rating of all the items purchased with the P’s budget (scores ranged from 3.78 to 8.0 on a one to nine scale,  $M = 5.47$ ,  $SD = .77$ ). Ps then completed the three attitude items from the SOI scale. The Materialism scale (Richins and Dawson 1992) was also administered as a potential covariate, and age and sex recorded.

Manipulation checks confirmed that Ps found the highly desirable targets more physically attractive ( $t = 13.71$ ,  $p < .001$ ), more socially successful ( $t = 11.51$ ,  $p < .001$ ), and more desirable as dates ( $t = 12.03$ ,  $p < .001$ ). There was no significant difference in CC across the two mating goal conditions (highly desirable vs. less desirable targets), so these conditions were collapsed for subsequent analyses. Multiple regression was employed. The three SOI attitude items ( $\alpha = .84$ ) were mean centered. Scores on the materialism scale did not significantly predict CC, so this variable was excluded. In addition to the conditional effect of SOI attitudes on CC, there was a significant three-way interaction between sex of P  $\times$  SOI attitudes  $\times$  goal condition: mating versus neutral/control,  $t = 1.65$ ,  $p = .05$ , confirming H1. Ps with relatively more favorable

attitudes towards uncommitted sex made more conspicuous product choices when a mating goal was activated, as compared to a neutral goal state, but this relationship was only found among men. Tests of the simple slopes of each of the four regression lines in figure 3 were conducted (Aiken and West 1991). In the neutral goal/control condition, the slope of the line for male Ps was not significantly different from zero,  $t < 1$ . The positive slope of the line for females in the control condition was significantly different from zero,  $t = 2.05, p < .05$ . Under active mating goals, the positive slope of the line for male Ps was significantly different than zero,  $t = 1.75, p < .05$ , but the slope of the line for females was not,  $t = 1.05, NS$ .

Study one provides results consistent with the notion that CC is, in part, motivated by impression management in a mating context. The study demonstrated that, as outlined in H1, the more unrestricted men's sexual attitudes were, the more likely they were to engage in CC when primed to think about mating. Unrestricted women were more likely than restricted women to engage in CC, but only reliably so in the neutral goal condition.

## STUDY 2

An effective signaling system in any marketplace requires two-way communication involving 1) the delivery of informative signals, and 2) the receipt and accurate interpretation of those signals. If people are attuned to the fact that unrestricted men are particularly likely to engage in CC as mating effort, they should form such impressions of men based on their CC.

**H2a:** Individuals that engage in CC will be perceived as relatively more unrestricted in their sexual attitudes compared to those engaging in inconspicuous consumption.

**H2b:** CC will be more closely associated with unrestricted sexual attitudes for male targets than for female targets.

The experiment followed a 2 (P sex: male/female)  $\times$  2 (target sex: male/female)  $\times$  2 (car type: Porsche Boxter [conspicuous] vs. Honda Civic [non-conspicuous]) between-subjects



design. 108 undergraduate students (70 women, 59 men; avg. age 23.5) participated. Cars were rated on status/prestige and desirability by an independent sample ( $n = 75$ ) using a one = not at all, to nine = extremely scale. The Porsche garnered more status/prestige (8.12 vs. 4.07,  $t = -15.18$ ,  $p < .001$ ) and desirability (7.19 vs. 4.68,  $t = -6.46$ ,  $p < .001$ ) than the Honda. Car ratings did not differ significantly between the male and female respondents. Ps were instructed to examine of a photo of the target and a picture of the car the target had recently purchased, and to read a profile describing his or her education (M.B.A., top 25 school), job (senior analyst, Fortune 500 company), salary (\$75,000-100,000/yr.) and hobbies (e.g., biking, movies). Ps then completed the SOI attitude items as they thought the target would (e.g., rate the extent to which you think [Jack] would agree or disagree with the statement “I can imagine myself being comfortable and enjoying “casual” sex with different partners.”). Ps reported their age and sex.

Data were analyzed using ANOVA. A composite of the three SOI attitude items ( $\alpha = .87$ ) formed the dependent measure. The simple effect of car type on unrestricted sexual attitudes was significant for the male target, ( $M = 4.87$  vs. 6.25,  $F(1, 27) = 4.36$ ,  $p < .05$ ), but not significant for the female target, ( $M = 4.51$  vs. 5.09,  $F < 1$ ). The male target with the CC item (Porsche) was perceived as significantly more unrestricted in his sexual attitudes than the male with the Civic. There was no significant difference in perceived unrestricted sexual attitudes for female targets based on car ownership.

Study two provides evidence that CC is linked to impressions formed about others in the mating domain. As predicted, CC was associated with perceptions that those consumers had more unrestricted sexual attitudes; confirming H2a. Tests of simple effects suggest that the effect of CC may be more pronounced for men than it is for women, providing support for H2b.

## GENERAL DISCUSSION

The data from the two main studies and a pilot provide converging evidence that mating-related goals may play a role in the motivation to engage in CC, and demonstrate that the conspicuousness of individuals' consumption can influence the impressions formed by observers. People recollecting a particularly conspicuous act of consumption were more likely to think of a man. In study one, men with unrestricted sexual attitudes were more inclined to engage in CC when they had a mating goal activated than they were under a neutral goal state. In Study two, otherwise identical targets that purchased CC items were perceived as more unrestricted in their sexual attitudes; an effect pronounced for the impressions formed of male targets.

Because of the different resources men and women contribute to the reproductive process, the two sexes place differential value on some characteristics in mate choice. In order to attract women, men have an incentive to display cues to resources. The studies presented here demonstrate how fundamental social goals, such as gaining status, and attracting mates (e.g., Bugental 2000; Bargh 2002), may be connected to everyday consumption choices and impression formation. These data suggest that at least one motivation for engaging in CC is to impress potential mates, and that sexual signaling is alive and well in the consumption domain.

Previous research on the motivations for CC in the consumer behavior literature has been focused primarily on more contemporary causes for the behavior, such as social and cultural factors, or certain personality traits (e.g. Mowen 2004). Our approach is different from a cultural perspective that takes a set of social rules as given and examines their influences on behavior, or a cognitive perspective that explores how information in the environment translates into specific behaviors. An evolutionary approach considers behaviors in light of broader questions about their adaptive significance. We focused on particular proximate triggers for CC (study 1), and the

impressions formed of consumers' sexual strategies (study 2). But, different from the contemporary causes investigated by researchers in other traditions, the hypotheses we test are rooted in a nomological network of inter-related theories and empirical evidence that integrates what we know about more historical influences on behavior in humans and other animals. In this way, an evolutionary perspective adds another explanatory layer to theoretically-based research on human behavior, and in this work, consumer behavior. Future empirical work can explore how the evolutionarily relevant fundamental motivations discussed here interact with more contemporary contextual constraints and social influences to affect everyday consumption.

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Homo consumericus: The Evolutionary Roots of Consumption Phenomena  
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**DONE**



*Homo consumericus*: The Evolutionary Roots of Consumption Phenomena  
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Nikolaas Tinbergen, Nobel Laureate in physiology or medicine in 1973 and one of the founders of ethology, proposed that phenomena could be explained at several distinct levels. Proximate explanations focus on *how* and *what* issues, e.g., how a mechanism operates and what are some moderators that might affect its workings. Ultimate explanations on the other hand address *why* issues namely they explore why a particular phenomenon be it at the affective, behavioral, cognitive, morphological, or physiological level, would have evolved to be of this particular form (in the Darwinian sense). Hence, proximate and ultimate explanations are not in conflict with one another rather both are needed for a complete understanding of a given phenomenon (see Tinbergen, 1963; Mayr, 1961; Tooby and Cosmides, 1992 for seminal discussions on this explanatory distinction).

Consumer scholars have amassed an impressive edifice of theories and empirical findings over the past thirty years albeit the epistemological lens has largely been restricted to the proximate realm. In the current paper, I provide a brief overview of ways by which our discipline might be enriched by an infusion of Darwinian-based theorizing (e.g., incorporating principles from the burgeoning field of evolutionary psychology). In doing so, I shall discuss a few examples from my research program on the links between evolutionary psychology and consumption (see Saad, forthcoming-a for additional details). These include the links between hormones and consumption, cultural products as a forum wherein our universal and common human nature is displayed, and sex-specific consumption patterns include various forms of dark side consumption (e.g., pathological gambling and compulsive buying) as maladaptive behavioral disorders rooted in a Darwinian etiology.

### *Hormones and Consumption*

Menstrual cycle has been shown to affect a wide range of phenomena including libidinal drive (Pillsworth, Haselton, and Buss, 2004), likelihood of engaging in risky behaviors (Chavanne and Gallup, 1998), caloric intake (Fessler, 2003), the selective attention to specific stimuli (Krug et al., 2000), preferences for particular male facial features (Gangestad and Thornhill, 1998; Penton-Voak and Perrett, 2000), and the manner of dressing in a bar (see relevant references in Wright, 1995). Along with one of my current graduate students (Eric Stenstrom), I am expanding these ideas to the consumption setting. Specifically, we are exploring a wide range of consumption choices and how these are affected by a woman's menstrual cycle.

Testosterone is another physiological marker that has profound effects on behavior albeit in this case it is a stronger driver of male-specific phenomena, many of which are relevant to the consumption setting. For example, Bernhardt et al. (1998) demonstrated that the testosterone (T) levels of fans viewing their favorite team fluctuated as a function of the team's performance. T levels are also affected by the outcome of intra-sexual competition (Mazur and Booth, 1998), the presence of members of the opposite sex (T levels rise when interacting with women; Roney, Mahler, and Maestriperi, 2003), and one's relationship and parental status (single men have higher T levels while new fathers have lower T levels; see Gray et al. 2002; Gray et al., 2004). Along with another of my graduate students (John Vongas), I am exploring the manner by which T levels fluctuate as a function of either performing or viewing a conspicuous consumption act. Specifically, to the extent that many conspicuous consumption acts are evolved sexual signals (see Miller, 2000), male-specific signaling should yield fluctuations in T levels.

Note that each of the aforementioned phenomena is rooted in an evolved physiological mechanism. In other words, it is unlikely that any of the phenomena in question could have been uncovered without the use of the relevant Darwinian-based frameworks. This is an important point as it demonstrates the unique contributions that evolutionary psychology can offer to the consumer behavior discipline. Specifically, many ultimate-based phenomena might remain invisible to consumer researchers unless tackled from an evolutionary perspective.

### *Cultural Products and Human Nature*

Social constructivists propose that humans are born with empty minds that are subsequently shaped and molded by various socialization forces. Accordingly, such a perspective posits that products of popular culture constitute an important element of the socialization process. I have argued elsewhere (Saad, forthcoming-a) for the exact opposite causal link namely many products of popular culture contain universal commonalities because they are manifestations of our evolved and common human nature. Hence, our human nature shapes many of the cultural products that we create rather than these shaping our supposedly infinitely malleable nature. Darwinian theory has been applied in investigating a wide range of cultural products including religion, art, music, television and movie themes, literary content, advertising semiotics, architecture, and gastronomy. Along with one of my graduate students (Isabelle Faivre), I am currently exploring three cultural forms from an evolutionary perspective. Specifically, we are conducting content analyses on print ads, song lyrics, and music videos with the hope of demonstrating that their respective contents reflect key tenets of our evolved

sexuality (e.g., facial symmetry of advertising endorsers, mate characteristics sought and offered in song lyrics, and sexual imagery in music videos).

While most evolutionary psychologists focus on identifying human universals, others seek to understand the evolutionary reasons that might yield cross-cultural differences. For example, evolutionary psychologists typically discuss the universal gustatory preference for fatty and sweet foods as an evolved adaptation to caloric scarcity and caloric uncertainty. On the other hand, Darwinian gastronomy (cf. Sherman and Billing, 1999; Sherman and Hash, 2001) posits that many elements of a culture's culinary traditions are adaptations to local niches (e.g., the prevalence of spices and/or salt as a function of geographical latitude). As such, evolutionary theory can be used as a meta-framework for understanding phenomena across the local-global continuum.

### *Sex-specific consumption patterns*

Countless consumption patterns display universal similarities in terms of their sex-specificity including prostitution, pornography, appearance-enhancing products, cosmetic surgeries, toy preferences, the consumption of physically and financially risky activities, and expensive sports cars to name but a few examples. Furthermore, many forms of dark side consumption including eating disorders, Internet pornographic addictions, compulsive buying, pathological gambling, and excessive sun tanning each yield an equally universal sex-specific morbidity. A non-evolutionary perspective for each of the aforementioned phenomena proposes that men and women learn and/or are socialized to display the particular behavior. This is an inadequate explanation for several reasons. First, to state that a phenomenon is due to socialization does not explain why the particular socialization process is of this form. Second, to

the extent that many sex-specific phenomena transcend cultures and époques, social constructivists must provide an explanation as to the universality of the particular socialization process. To paraphrase Tooby and Cosmides (1992), socialization and cultural learning are to social constructivists what protoplasm and élan vital were to biologists prior to the advances in molecular and cellular biology. Evolutionary psychology provides ultimate-level theorizing rooted in Darwinian mating modules (e.g., sexual selection) for each of the latter sex-specific phenomena.

## **Conclusion**

Richard Nisbett, a psychologist well known to the current SCP audience recently stated:

"Not every psychologist will be an evolutionary psychologist, but every psychologist will be aware of the perspective and will have to address its explanations and constraints in his or her own work" (Nisbett, 1995, personal communication)." (as quoted in Kenrick and Simpson, 1997, p. 16-17)

Nisbett's position is equally valid when discussing the sub-discipline of consumer psychology. While most consumer psychologists will continue to engage in creative, rigorous, and innovate research at the proximate level, their work can benefit from the recognition that consumers are biological organisms shaped by the dual forces of natural and sexual selection.

Many social scientists, including consumer scholars, wrongly assume that the incorporation of evolutionary theorizing into their respective disciplines is tantamount to an epistemological defeat. As mentioned in the introductory paragraph, proximate and ultimate explanations work in tandem in yielding complete explanations for a given phenomenon. Most gynecologists and obstetricians are likely very familiar with the key proximate aspects associated with pregnancy sickness (e.g., identifying particular odors that exacerbate the symptoms).

However, few are aware of the ultimate explanation for this unpleasant condition. Specifically, evolutionists have proposed that pregnancy sickness is an evolved physiological response meant to protect the developing fetus from teratogens that might be ingested by the mother (Profet, 1992; Flaxman and Sherman, 2000). This ultimate-based insight implicitly recognizes that the attenuation of the symptoms associated with pregnancy sickness is oftentimes a suboptimal medical intervention. This example should hopefully highlight the fact that by investigating phenomena at both explanatory levels, greater consilience will likely be achieved within the consumer behavior discipline.

As alluded to earlier, one of the benefits of evolutionary psychology to the consumer behavior discipline will likely stem from its ability to both generate novel hypotheses and identify ultimate-level phenomena that would have otherwise been invisible to the consumer scholar. For example, Euler and Weitzel (1996) used paternity uncertainty, a central concept in understanding the evolution of human mating, to explain the differential patterns by which grandparents invest in their grandchildren. Specifically, maternal grandmothers provided the greatest investment whilst paternal grandfathers provided the least. It was proposed that this is because the former are guaranteed of their genetic linkage while the latter face two sources of paternity uncertainty. Returning to the links between hormones and consumption Milinski and Wedekind (2001) found that individuals' perfume preferences (for self) were congruent with their immunogenetic profiles as such this product is likely used as an olfactory mating signal. It is difficult to imagine how either finding might have been obtained without an understanding of evolved mating strategies (i.e., the relevance of paternity uncertainty and the Major Histocompatibility Complex in human mate choice).

I hope that I have provided a compelling case for the relevance of evolutionary psychology in understanding consumption phenomena. Interested readers can refer to Saad and Gill (2000), and Saad (forthcoming-a; forthcoming-b) for many additional examples.

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## **Session 6C (Illusions Dance Club)**

Where Do People Diverge From Others? Tastes As Signals of Identity

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## Abstract

In this article, we argue that consumers are more likely to choose options that diverge from others in certain domains of social life (e.g., hairstyles and music versus notebooks and detergent). We propose that the different rates of divergence across domains is driven by identity-signaling: People use certain domains to infer others' identity but the identity they infer depends on who else makes a particular choice. To ensure clear identity signals, people are more likely to choose options that diverge from a majority, or from out-group others, in these identity-related domains.

WHERE DO PEOPLE DIVERGE FROM OTHERS?  
DOMAINS OF DIVERGENCE, IDENTITY SIGNALING, AND  
CONSUMER CHOICE

Jocks look like jocks and geeks look like geeks; teens dress like teens and parents like parents. These observations are easy to explain; the social sciences converge in their emphasis on convergence. Conformity is one of the most widely studied principles in social psychology (e.g. Asch, 1955; Sherif, 1936) and has even been raised to the status of social law (see Social Impact Theory, Latane, 1981). Economists study the roots of herd-like behavior (e.g. Banerjee, 1992). Sociologists discuss conformity under the notion of mimetic isomorphism and models of adoption and diffusion, are implicitly based on conformity dynamics (Bass, 1969; Rogers, 1983).

What's harder to explain using standard social science approaches is that while the jocks look like each other, they look quite different from the geeks. Groups or types of people select tastes that distinguish them from other types and abandon tastes if the wrong types adopt them. Shanghai residents avoid purchasing Volkswagen Santanas because they are a favorite car among the nouveau riche outside the big cities and Manhattanites wore mesh trucker hats until the bridge-and-tunnel crowd adopted them. The puzzle for theories of conformity is explaining why groups of people diverge from each other.

Some forms of divergence are easy to explain using an important approach in psychology that has considered individual drives for distinction--uniqueness theory (e.g. Snyder & Fromkin, 1980, also see work on optimal distinctiveness, e.g., Brewer, 1991). Distinction based theories can explain why each jock might prefer to wear a slightly different color of t-shirt (each individual wants to stand out from their crowd), but they have more difficulty explaining why

*groups* of people diverge in the same direction--why all the jocks wear t-shirts and all the geeks wear shirts with buttons.

Moreover theories of conformity and theories of distinction both have trouble explaining why conformity and divergence vary across domains. Teens may share their parents' taste in food, but they usually avoid their parents' music and cringe at wearing similar clothes. The jocks might be happy to use the same backpacks or pens as the geeks, but they would not be caught dead with the same hairstyle. In order to understand conformity and divergence more fully, we need to understand more about why divergence seems more common in certain domains. In this paper, we use a model of identity-signaling (see Berger, Heath, & Ho, 2005) to address this puzzle.

#### PREVIOUS RESEARCH RELATING TO DIVERGENCE

Two areas of research in psychology have considered processes of distinction. Both serve as an important corrective to the overwhelming emphasis in the social sciences on conformity, but both have trouble explaining why divergence varies across domains. The uniqueness literature (e.g. Snyder & Fromkin, 1980) argues that when people feel overly similar to others they take steps to reduce the similarity, e.g. they misremember how similar they were (Byrne & Griffitt, 1969) or selectively focus on how they differ (Ganster, McCuddy, & Fromkin, 1977). Uniqueness helps us understand, for instance, why individuals sitting together at a restaurant would order different entrees; Ariely and Levav (2000) show that individuals dining in small groups order distinctive entrees and actually make themselves less happy by doing so.

Work on optimal distinctiveness (e.g. Brewer, 1991) argues that people resolve competing needs for validation and distinction by selectively emphasizing various social

identities to bolster their self-concept. When people feel overly similar, they emphasize distinctive group memberships (e.g. chess club member); when people feel too different, they emphasize broader generic identities (e.g. female).

But neither approach explains why divergence seems to take place more in certain areas of life. If people just wanted to be unique or distinctive, they could do so by diverging in any domain. Across individuals then, why do people seem to diverge more in some domains?

### AN IDENTITY SIGNALING APPROACH TO DIVERGENCE

We suggest an identity-signaling approach to divergence. People diverge to signal their identity to others so that they can enjoy more fulfilling social interactions (Berger et al., 2005). When we first meet people, for example, we often use external signals--the clothes they wear, attitudes they profess, or car they drive--to decide how to treat them. When different types of people diverge in their tastes, tastes will provide clearer signals of identity and people will find it easier to identify each others' type. Divergence makes it easier for people to identify others who are similar (to ensure future interactions with them), and different (to interact appropriately with them as well--e.g., avoiding disliked types or deferring to expert types). When the hikers all diverge in a similar direction, say by wearing hiking boots rather than sneakers, hikers will be easier to identify. The hiking boot signal allows the hikers to congregate and plot serious hikes, and it allows the non-hikers to know who to consult for advice on a day-hike. Signals, by their nature, must be social--people can only send signals that are understood by others.

Thus tastes can act as signals of identity, but for interactions to be smooth, signals must be clear. If members of different social types adopt the same taste, the taste will have no value as a signal to distinguish between types. If both outdoorsmen and suburban accountants drive SUVs, then an observer who sees someone driving an SUV cannot determine whether a driver

likes Redwoods or spreadsheets. We argue that to maintain the beneficial interactions facilitated by clear signals, people may diverge from others in the tastes they select and may abandon tastes that are adopted by other social types.

#### DOMAINS AS A CRITICAL TEST OF DIVERGENCE

Examining domains provides a critical test for distinguishing the identity signaling approach from traditional uniqueness or distinctiveness approaches. If every individual choose to express identity in his or her own idiosyncratic domain (e.g., one person chose their socks, another chose their shaving cream, another chose their car, etc.), people would not know where to look to determine others' identity and signals could not be interpreted very easily. The identity signaling approach predicts that across individuals, people should express (and infer) identity using similar domains and they should be more likely to diverge in domains that are identity-relevant (for a formal model of this see Berger et al., 2005).

But why are certain domains more identity-relevant? For example, people seem more likely to infer someone's identity from their clothing or music than from their backpacks or pens. We argue that some domains are more identity-relevant because choice in those domains is based less on function. Cultural practices can have both a functional and an identity component (e.g. Shavitt, 1990). Based on standard psychological discounting (Kelly, 1973), it should be harder to interpret someone's choice as identity relevant when the choice domain is more functional. Backpacks and pens have an obvious functional component that is missing from music, so we are more likely to infer identity from music. Identity inference making, then, should be more likely to occur in domains (and on attributes of those domains) where choice is afunctional.

Below, two studies document divergence--thus adding to the relatively few empirical examples of divergence--and show that the amount of divergence varies by domain.

### STUDY 1: DIVERGENCE IN SELECTING TASTES

In this study we investigate whether divergence does indeed vary by domain. We had people consider a number of domains, ranging from clothing and music tastes to power tools and backpacks. In each they chose among three options: Option A was preferred by a majority (65% of the population), Option B by 25%, and Option C by 10%. For example, people could choose the stereo chosen by 65% of others, 25% of others, or 10%. We assume that the more people who hold a given taste, the more likely someone will be to infer that the taste is held by multiple social types, and thus is less useful as a signal. Thus, in general Option A (preferred by the majority) should be a less effective signal than Options B or C.

We predicted that people would be more likely to diverge from the majority option (i.e. choose Option B or C) in domains that others use to infer identity. To assess which domains were identity relevant, separate sets of respondents rated the domains on how much they were used to express and infer identity. Prior literature suggests reference group influence may play a larger role when possessions are public (e.g. golf clubs) than private (e.g. mattress, Bearden and Etzel, 1982). Thus a separate set of respondents also rated the domains on publicness.

#### Method

A broad Internet sample (N=201, Mean Age = 38, 82% Caucasian) completed a "Preference Survey" for a five-dollar gift certificate. Participants chose one of three options in



various preference domains (e.g. dish soap, stereos, hairstyles, 19 domains in all)--they were told 65% of people preferred Option A, 25% preferred Option B, and 10% preferred Option C.

*Domain Ratings.* Separate sets of raters were given the same domains and rated each on either self-expression (how much choice in that domain contributes to self expression,  $N = 20$ ,  $\alpha = .93$ ) or identity inference-making (how much choice in that domain is used to make inferences about others,  $N = 20$ ,  $\alpha = .91$ ). The two sets of ratings were highly correlated ( $r = .95$ ) and averaged to form an Identity Index. Another group ( $N = 32$ ) rated each domain on how public preferences in it are ( $\alpha = .92$ ). All ratings were on 7-point scales.

## Results and Discussion

Our key prediction was that people would prefer greater divergence in identity related domains. An OLS regression predicting preference for Option A based on publicness and identity relevance is consistent with this prediction; the percentage of people preferring Option A (65%) decreased when the domain was identity related ( $\beta = -.80$ ,  $p < .001$ ). Respondents were less likely to select Option A in domains like hairstyle and favorite music artist than dish soap or bike light (Figure 1). Based on a median split on the identity dimension, 46% of participants preferred Option A in non-identity domains, but only 24% preferred it in domains that were identity relevant. Domain publicness did not add predictive power ( $\beta = -.13$ ,  $p > .20$ ).

We also examined why certain domains might make better signals. A separate set of respondents ( $N=13$ ) rated the domains on functionality (e.g. how much choice in the domain is based on functional benefits,  $\alpha = .94$ ). Consistent with our discounting notion, there was a high

negative correlation ( $r = -.90$ ) between functionality and identity-relatedness; the less people saw others' choices as being determined by function, the more they used it to infer identity.

Study 1 provides evidence that divergence is an identity process; in domains more related to identity, people were less likely to select options held by the majority. Consistent with our focus on the social nature of identity, there was also a high degree of congruence across participants about which domains were identity related. Even though our internet sample came from a range of demographic backgrounds, separate sets of raters exhibited strong agreement about which domains were used to express identity and infer identity.

We were also able to predict which domains would be “identity domains” by looking for domains where choice is not heavily tied to functional benefits. Consistent with our theory, domains acted as better signals of identity when choice in them was harder to interpret as an indication of functionality.

Study 1 suggests people diverge in selecting tastes, but it involves a questionnaire manipulation that might lack social immediacy. Study 2 places people in a social context where they anticipate defending their preferences to others. Furthermore, it investigates a particularly strong form of divergence--whether people will abandon tastes they once preferred when they learn that a majority shares them.

## STUDY 2: DIVERGENCE THROUGH TASTE ABANDONMENT

In this experiment we assess taste abandonment. We measured people's preferences in a number of taste domains and later (through an elaborate cover story) exposed them to data suggesting the signal value of their preference had been diluted by being shared with a majority of others. We then re-measured their preferences to examine whether they would abandon prior

preferences. Our prediction was that abandonment would be greater in identity related domains. We also measured participants' need for uniqueness to investigate whether individual differences in the desire to be different would predict divergence.

## Method

*Time 1 -- Taste elicitation.* In the first stage of the experiment, Stanford students (N = 40) completed a "Preference Survey" as part of a larger testing session. They were presented with 25 preference domains (e.g. car brand, musical artist, entree, toothpaste, etc.) each of which included five options, and were asked to "please circle the option you like the best from each of the choice sets." In the car brand domain, for instance, participants chose their preferred brand from five car brands (Acura, BMW, Mercedes-Benz, Volvo, Lexus). Eight of the twenty-five taste domains were used as target domains in the next portion of the study.

*Time 2 – Manipulation of signal clarity.* Two to three weeks later, participants came to the lab in small groups (N = 2 to 7) for a seemingly unrelated study about how people discuss their preferences. As they walked in, a research assistant was working at a side table in the experiment room, visibly entering data. After an initial exercise, the experimenter apologized, saying he had run out of copies for the second portion and had to go make more. While the experimenter was gone, participants were asked to help the assistant tabulate some preference data (to fill the time). The data each participant tallied was carefully calibrated to suggest certain preferences of theirs were shared by others. Each participant received data from 10 previous subjects, each of whom had chosen among five options in 12 different taste domains (8 target domains plus 4 fillers). Responses suggested that a majority of "previous subjects" had chosen the option the participant chose at Time 1 (the percentage was lower in filler domains to avoid

suspicion). Degree of convergence varied across target domains (from 6/10 to 8/10) but was equivalent across domains that were more and less related to identity. After a few minutes, the experimenter returned with the copies, collected the sheets, and handed out the “actual survey.” Participants were given a packet with each of the eight target domains on a separate sheet of paper (alternating identity and non-identity related domains) and asked to “circle the option you like the best from each of the choice sets on the next few pages.” They then came together as a group and discussed their preferences. Finally, participants completed the Need for Uniqueness Scale (Snyder & Fromkin, 1977) and were debriefed.

## Results and Discussion

Before turning to our main analyses, we first examined whether students who learned their taste was shared by a majority of other students would think that the taste is not a good signal of their type of student (e.g. athlete, artist, Trekkie). Students ( $N = 20$ ) were asked to imagine their preference was shared by either 8 (or 2) of 10 other students and then asked whether or not they thought their preference was shared by people outside their social type. Consistent with our theory, students who were told that a majority of other students shared their preference were more likely to believe the preference was shared by people outside their own type ( $M_{\text{Majority}} = 70\%$  vs.  $M_{\text{Minority}} = 20\%$ ),  $\chi^2(1, N = 20) = 5.05, p < .03$ .

Our signaling notion predicts participants should be more likely to diverge in identity related domains. Results support this hypothesis; a median split found that participants diverged on a larger number of tastes in identity related domains ( $M_{\text{Identity Related}} = 1.13$  vs.  $M_{\text{Non-Identity Related}} = 0.73$ ),  $F(1, 39) = 5.26, p < .03$ . Participants diverged on 28% of tastes in identity related domains but only 18% of tastes in non-identity domains. We also used a hierarchical linear

regression, predicting a participant's decision whether to diverge in a given domain based on how related the domain was to identity, domain publicness, and the individual participant's need for uniqueness. Consistent with our hypothesis, how much the domain was related to identity was a significant predictor of divergence ( $B = 0.05$ ,  $SE B = 0.02$ ,  $t(256) = 2.72$ ,  $p < .01$ ). Neither domain publicness ( $B = -0.03$ ,  $SE B = 0.02$ ) nor need for uniqueness ( $B = 0.001$ ,  $SE B = 0.002$ ) added predictive power ( $p$ 's  $> .20$ ).

It is difficult to attribute these results due to random preference change over time. A separate set of respondents ( $N = 20$ ) went through the same procedure as participants in the main study, but they were not exposed to information regarding the choices of others (at time 2). Participants in this comparison group did not diverge more in identity domains ( $M_{\text{Identity Related}} = 0.65$  vs.  $M_{\text{Non-Identity Related}} = 0.95$ ),  $F(1, 19) = 1.54$ ,  $p > .20$ . Furthermore, consistent with our perspective, the degree to which participants diverged in identity related domains was greater in the main study ( $M = 1.13$ ) than in this comparison condition ( $M = 0.65$ ),  $F(1, 58) = 3.30$ ,  $p = .07$ .

It is also difficult to suggest that people diverged more in identity related domains because divergence in these domains was less costly. A separate set of respondents ( $N = 20$ ) rated how much they liked each option. Underscoring the notion that switching away from one's favorite option is costly, people liked their second favorite option ( $M = 4.36$ ) significantly less than their favorite ( $M = 4.89$ ),  $t(39) = 5.46$ ,  $p < .001$ . But switching was no less costly in identity-related domains; the mean difference between favorite and second favorite was equivalent across domains ( $M_{\text{Identity Related}} = 0.51$  vs.  $M_{\text{Non-Identity Related}} = 0.49$ ),  $t < 1$ .

These results are consistent with our divergence hypothesis: upon learning that their preferences were shared by a majority of others, people were more likely to abandon previously held preferences in identity related domains.

## GENERAL DISCUSSION

This paper has been devoted to identifying a new, identity-based mechanism that drives divergence, but we don't want to claim that all divergence is driven by identity-signaling. Hipsters may all wear the same style of jacket, allowing them to signal their type (as we predict), but select different colors (as predicted by the uniqueness literature), allowing them to feel somewhat unique relative to others of their type. Furthermore, some divergence may be idiosyncratic, driven by people's desire to express their uniqueness on an issue of personal importance (a coin-collector probably seeks to be unique in their own particular hobby domain). The contribution of our studies is to suggest that *across* individuals certain domains are more identity-relevant and people are more likely to diverge in these domains

Divergence is, in significant part, a process of communicating identity in the social environment. By better understanding the role identity plays in social interaction, we can gain greater insight into both why people adopt tastes and why they abandon them.

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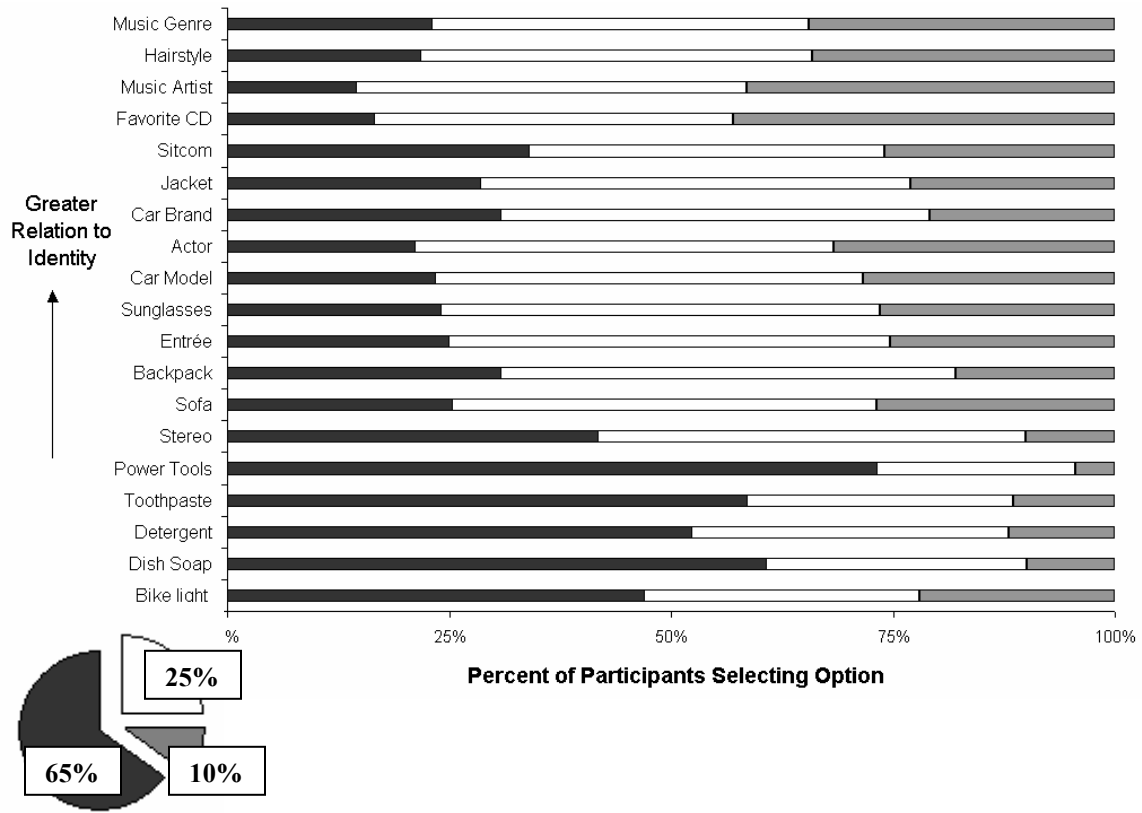


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Figure 1

*Study 1: Divergence in Taste Selection*



Reconsidering the Relationship between Consumer Motives and Personal Values

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## Extended Abstract

Consumer motives and personal values have been extensively researched across a wide range of disciplines. Accumulating evidence shows that motives are relatively enduring preferences for the attainment of certain classes of desired goal states, usually operating outside of a person's conscious awareness (e.g. McClelland, 1987), while personal values are conscious and learned beliefs about preferred ways of acting or being, which serve as guiding principles in the life of a person or other social entity (e.g. Costa & McCrae, 2001).

Although personal values theoretically could be considered as cognitive instantiations of underlying motives (e.g. Schwartz & Bilsky, 1987), empirical findings suggest that few significant correlations exist between TAT-type assessments of motives and direct self-report measures of values (e.g. Biernat, 1989).

The aim of present study is to reconsider the empirical relationships between consumer motives and personal values, based on both an alternative third-person technique of motive assessment and a non-student subject sample. Suggested is that motive-value correlations may become more substantial by increasing method congruence between implicit motive assessments and direct value measures (i.e. using the same structured response formats, i.e. Likert scales in both cases) and by allowing more middle-aged subjects to participate in the study (i.e. random walk method) instead of young adults.

Specific hypotheses are formulated regarding the proposed relationships between Geeroms et al.'s (2005) motive taxonomy and Schwartz' (1992) value structure. Results indicate that – although still moderate in magnitude – some significant correlations exist between motive measures and Schwartz' value measures. In present study, 38% of the motive-value correlations appear to be significant at the alpha .05 level of probability compared to only 14% in previous

studies (e.g. Wilson, 1983). This may indicate that – although an increase in method congruence between motive and value measures and the use of an elderly subject sample seem to have rather low influence on correlations’ magnitude – they may have substantial impact on the number of significant correlations between motives and values.

Our findings are consistent with the hypothesis that people lean toward those values that play to their inherent motive dispositions. Specifically, motives of Pleasure and Vitality contribute to the priority that individuals place on pro-Openness to Change values; Conviviality and Belonging contribute to pro-Self-Transcendence values; motives of Security and Control support pro-Conservation value priorities; and Recognition and Power motives contribute to pro-Self-Enhancement values versus Self-Transcendence. Thus, while the environment certainly has a strong formative effect on an individual’s values (e.g. Schultheiss & Brunstein, 1999), one’s basic motive dispositions appear to color the influence of environmental factors in predictable ways. However, given the moderate strength of the found relationships between motives and values, we may not overestimate the degree of interconnectedness between these two constructs and must agree that to a great extent, McClelland et al.’s (1989) conceptualization of motives and values as somewhat different dimensions of the personality structure remains stable in the context of present research.

Summarizing, present research contributes to consumer psychology both on an empirical and theoretical level. Empirically, clear implications of choice of measurement method and sample on the strength of motive-value relationships are shown, whereas conceptually, present knowledge about the ways in which particular motive dispositions influence individual value priorities is extended.

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Using Indirect Questioning To Pinpoint and Reduce Social Desirability Bias  
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## Abstract

Social desirability bias is the introduction of error into research due to the motivation of a research participant to present him/herself in a way that is socially positive. Research on social desirability has often focused on how to correct for the bias, focusing on the threat to validity during construct development. The present research examines differences in responses for self-report versus indirect-report questioning formats for the Marlowe-Crowne Social Desirability Scale. Results extend previous findings, suggesting conceptual improvements in the scale are necessary and showing support for the use of indirect-report questioning formats to reduce social desirability bias.

Abstract and Concrete Mindsets and the Activation of Self-Relevant Goals  
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## Abstract

This research tries to develop a synergistic approach for better understanding the impact of the motivations flowing out from individual's self-concepts on the evaluations of consumer situations. Results from this research support the notion that whenever individuals view actions at high-levels of abstraction, self-relevant goals can be automatically activated and drive people's perceptions and actions. The impact of active self-conceptions, as provider of readily accessible high-level goals, on people's actions would be maximized under these conditions. In contrast, when individuals view actions at low-levels of abstractions, they tend to focus on concrete experiences and processes of the situation regardless of their active self-conceptions. In this context, the impact of active self-representations on individual's perceptions is impaired.

## ABSTRACT AND CONCRETE MINDSETS AND THE ACTIVATION OF SELF- RELEVANT GOALS

### MOTIVATION

People's goals often flow out of motivations related to their self-concepts (Sorrentino, 2003). Although researchers have devoted considerable attention to the study of both self-driven (Agrawal & Maheswaran, 2005) and goal-driven (Huffman & Houston, 1993) approaches to the understanding of consumer behavior, scant research has attempted to integrate goal and self-driven perspectives into unified frameworks. This research attempts to fill this gap in the literature by developing a synergistic approach to better understand the impact of the motivations flowing out from individual's self-concepts on the evaluations of consumer situations. More specifically, this research investigates the impact of self-representations and individual's mindsets on the activation of goals at different levels of abstraction.

### THE SELF AND MOTIVATION

As far back as the theorizing by Sigmund Freud, one can clearly identify the self as an important organizing principle that plays a pervasive role in how people construe, evaluate, and explain their social worlds (Dunning, 2003). The self is conceived as a system of knowledge structures containing the total amount of information an individual encodes in memory across the life-span (Cantor, Markus, Niedenthal, & Nurius, 1986). The present research focuses on the knowledge structures associated with the individual's relevant goals, motives, and plans that are contained in the self (Carver & Scheier, 1999). More specifically, we are interested in the relevant goals contained in the independent and interdependent self-construals (Markus & Kitayama, 1991).

Markus & Kitayama (1991) identify the most significant distinction between the independent and the interdependent self-construals in the role assigned to others in self-definition. For the interdependent self, others are included within the boundaries of the self, whereas an independent construal assumes the self to be a complete, autonomous entity, without the others. Accessibility of a given self-construal has implications on individual's overarching motivations (Markus & Kitayama, 1991). An independent self views agency as an effort to express one's internal needs, rights, capacities and to withstand undue social pressure, which relates to the universal goal for autonomy and differentiation from others (Brewer, 1991). In contrast an interdependent self experiences agency as an effort to be receptive to others, to adjust to their needs and demands, and to restrain one's own inner needs or desires, which translates into goals of belongingness and relating to others (Baumeister & Leary, 2000).

The study of the motivations relevant to different self-construals has been mainly conducted in cross-cultural research. By comparing individuals from cultural backgrounds that nurture a particular self-representation, researchers have identified the relevant motivational constructs for the independent and the interdependent self-construal (Kim & Markus, 1999; Markus & Kitayama, 1991). Individuals in any culture sample from both independent and interdependent definitions depending on the situation (Triandis, 2000), and these temporarily accessible self-representations affect cognitive processes in the same way that chronically accessible ones do (Ybarra & Trafimow, 1998). Thus, the assumption that motivational mechanisms uncovered in cross-cultural research can be translated to the corresponding self-construals within a given individual is an intuitive one. However, given that each culture has its own ideologies, beliefs, and informal practices that shape individuals behaviors (Kim & Markus, 1999), and given that self-attributed motivations can be built upon ideas about the self and what

the culture explicitly defines as valuable without necessarily channeling out a higher level motivation (McClelland, Koestner, & Weinberger, 1989), empirical support is needed to show that the accessibility of a given self-construal brings to mind self-related, high-level goals capable of driving individual's actions.

The active array of accessible self-representations sampled from the universe of one's self-conceptions is known as the working self-concept, and these representations can become active when they are triggered by self-relevant events (Markus & Nurius, 1986). Among others, these accessible self-representations contain cognitive representations of goal hierarchies relevant in varied contexts. Once activated, the superordinate goal in the hierarchy that receives focal attention can guide individual's self-regulatory processes (Shah, Kruglanski, & Friedman, 2003). Well articulated goal hierarchies represented in a given self-construal can then be made available at a given moment and guide individual's actions. In these hierarchies, the higher one goes into the organization, the more fundamental the goals qualities encountered and the closer to the core sense of self (Carver, 1996). However, an individual focuses only on a particular level of abstraction within the hierarchy at a given point in time. Thus, the focal level of abstraction can have profound implications in the individual's interpretation of his/her actions in terms of the goals been fulfilled and/or pursued.

#### INDIVIDUAL'S MINDSETS AND LEVEL OF ABSTRACTION

Since Brown (1958) acknowledged that every referent can be identified in many different ways, it has been firmly established in the social psychology literature that any one action identification is just one choice from among many possibilities (Vallacher & Wegner, 1987). These potential identifications are conceived as bearing systematic relations to one another in an organized cognitive representation of the action. This action's identity structure is a hierarchical

arrangement of an action's various identities from lower to higher levels of abstraction. Higher-level identities refer to the general understanding, or meaning, of the action. They represent the "why" of the action. These identities are more abstract and less movement defined. In contrast, low-level identities refer to the details of the action. They represent the "how" of the action. These identities are more concrete and more movement defined. The multiple identities can be arranged in a continuum from lowest to highest level of abstraction (Vallacher & Wegner, 1987).

Among the many factors that can impact the level at which an actor sees an action, one that has recently received increased attention is the individual's mindset. The concept of mindset was suggested by the Würzburg school of thought (Gollwitzer, 1996) as a general cognitive orientation with distinct features that facilitate a given task. Research about deliberative and implemental mindsets (Gollwitzer, 1990) has shown that different stages of the course of an action are accompanied by distinct mindsets. As cognitive operations, mindsets are subject to activation. Once activated, there is increased likelihood that these operations will be used in upcoming tasks to interpret new information (Freitas, Gollwitzer, & Trope, 2004; Higgins, 1996). Thus, the activation of a particular mindset, triggered by a situational cue, can affect how the individual construct a situation (in terms of level of abstraction) in a subsequent task. Among different mindsets studied in the literature, this research focus on abstract and concrete mindsets (Freitas et al., 2004) due to their direct impact on the level of abstraction that receives focal attention on a goal hierarchy. An abstract mindset facilitates individual's focus on the high-level, abstract aims of a situation, whereas a concrete mindset facilitates the focus on the low-level, concrete aspects and experiences of the same situation.

## MINDSETS AND SELF-REPRESENTATIONS

Higher-level identifications are closer to the core sense of self (Carver, 1996) and the self-defining potential of action becomes more apparent when one's action is understood at a relatively high level (Trope & Liberman, 2003). The more abstract goal activated by a higher-level identity would be upper in the goal hierarchy (Carver & Scheier, 1999) and closer to the channeling out of fundamental, self-relevant motivations (Levy, Freitas, & Salovey, 2002; McClelland et al., 1989). Thus, motivational representations contained in the working self-concept can activate high-level, self-relevant goals outside of awareness and affect perception and behavior (Bargh & Barndollar, 1996). This process should be then facilitated when individuals activate an abstract mindset and, under these conditions, the motivational impact of a given self-construal in bringing to mind high-level, self-related goals should be increased (compared to the activation of a concrete mindset). An active independent self-construal would bring to mind autonomy-related motivations, whereas an interdependent self-construal would activate belongingness-related motivations. The increased accessibility of these different goals may be revealed through thought listing procedures similar to those used to assess individual construct and chronic goals accessibility (Ratneshwar, Barsalou, Pechmann, & Moore, 2001). The following hypothesis is proposed:

**H1:** Upon the activation of an abstract mindset, individuals primed with independence will bring to mind and think more about autonomy-related goals than their counterparts primed with interdependence, whereas the latter group will bring to mind and think more about belongingness-related goals than the former group.

These goals activated outside of awareness can be readily projected onto other people, which can make individuals arrive at ascribing goals or intentions to others on the basis of their own goals or intentions (Kawada, Oettingen, Gollwitzer, & Bargh, 2004). Individuals primed



with interdependence may then perceive that others pursue belongingness-related goals, whereas those primed with independence may perceive that others pursue autonomy-related goals. In contrast, a concrete mindset would lead individuals to focus on low-level identifications of an action. This would impair self-expression and facilitate the focus on lower-level goals related to concrete processes and experiences of the situation, regardless of self-accessibility. As a consequence, the motivational impact of the self would be minimized under these conditions.

The following hypotheses are derived:

**H2a:** Activation of an abstract mindset facilitates the projection of high-level goals onto others compared to a concrete mindset, which would facilitate focusing on concrete goals pursued by others.

**H2b:** Upon the activation of an abstract mindset, individuals primed with independence would project onto others autonomy-related goals, whereas those primed with interdependence would project belongingness-related goals.

#### PRETEST: HIGH- AND LOW-LEVELS OF IDENTIFICATION OF CONSUMER SITUATIONS

Research related to levels of action identification characterizes high-level identities as those identities related to the meaning (e.g., the “why”) of an action and low-level identities as those related to the details (e.g., the “how”) of the action. For our purposes, high-level identities clearly refer to fulfillment of autonomy- and belongingness-related goals. This is congruent with past research that has referred to high-level identities as characterized by the long-term goals associated in a situation (e.g., Freitas et al., 2004). Although there are multiple characterizations of low-level identifications in the literature, very few of them are applicable to consumer situations. Among others, we find feasibility, short-term experiences, and situational

considerations as characteristics of these low-level identities. In a consumer setting, this would refer to concrete issues like product availability, knowledge about the product, price promotions, budget constraints, and other issues related to the “how” of acquiring the product. A pretest was conducted to validate this rationale.

Participants were 41 college students from the same pool used in the main experiment. They were first presented with a task that asked them to circle pronouns and aimed at priming either the independent or the interdependent self-construal (Brewer & Gardner, 1996). After that they completed an unrelated task to activate either an abstract or a concrete mindset by asking them to consider *why* they would engage in an activity (abstract mindset) or *how* they would engage in the same activity (concrete mindset, Freitas et al., 2004). Next, in an unrelated study about “consumer situations and people’s choices,” they were presented with a hypothetical consumer who was shopping for alternative products. The situation described how this consumer (John) was moving to a job in a different city where he was going to interact with new people and leave behind family and friends. He had among many options the chance to buy a gift for his father’s birthday (a video camera), a cool smartphone that nobody had, or a convenient PC. For each product, there were multiple concrete issues related to price, sale offers, availability, budget constraints, and knowledge about the product. Participants were then asked to indicate what was going through John’s mind. We expected participants from the concrete mindset condition to focus their thoughts on the concrete issues, whereas those from the abstract mindset condition were expected to concentrate their thoughts on higher level issues related to fitting in, relating to people, being successful, impressing others, etc. Participants’ thoughts were coded as either concrete or abstract accordingly (thoughts not fitting the categories mentioned were coded as other). The number of abstract and concrete thoughts were subject to separate ANOVAs with

self-prime and mindset as factors. The number of abstract thoughts was significantly higher in the abstract condition compared to the concrete one ( $M_{\text{abs.}} = 1.81, M_{\text{conc.}} = .93$   $p < .025$ ) and the number of concrete thoughts was significantly higher in the concrete condition compared to the abstract one ( $M_{\text{abs.}} = .81, M_{\text{conc.}} = 3.07$   $p < .001$ ). These results validate our characterization of high- and low-level identifications of the consumer situation to be used in the main experiment.

## EXPERIMENTAL DESIGN

In order to test the hypotheses developed in this research an experimental design was used. The procedure in this experiment was the same one used in the pretest with the exception of the stimuli. Participants were 59 undergraduate students enrolled in a marketing or organizational behavior course who participated in exchange for course credit. They were first presented with a story aimed at priming either the independent or the interdependent self (Ybarra & Trafimow, 1998). Next, in an unrelated task, they were presented with the task aimed at activating an abstract or a concrete mindset. In this case, participants were asked to consider *why* they would engage in an activity (abstract mindset) or *how* they would engage in the same activity. The activity (e.g., “learning another language”) was chosen as to facilitate uncovering participants’ accessible high-level goals of interest. Structuring these thoughts exercises were diagrams instructing participants to write down the answers to the *why* questions (leading them to think increasingly abstractly about the activity) or to the *how* questions (leading them to think increasingly concretely about the same activity). This thought listing procedure would reveal participants’ readily accessible goals freely brought to mind in the working self-concept (e.g., interdependent vs. independent). Finally, participants were presented with the shopping situation about a hypothetical consumer (John) similar to the one used in the pretest, and asked to indicate

what they thought went through John's mind, and to indicate the goals John was pursuing. They filled in the self-construal scale (Singelis, 1994) and were debriefed and dismissed.

### Dependent Variables

Four dependent variables were used in this experiment. Participants' answers to the *why* questions were coded as autonomy- or belongingness-related goals, and the total number of both types of goals was recorded for each participant. In addition, the goals participants ascribed to John were also coded as autonomy-related, belongingness-related, or concrete goals (e.g., optimizing budget, choosing a product on stock, etc.) and recorded for each participant.

### Results

*Manipulation Check.* Thoughts attributed to John (same as pretest) served as a mindset manipulation check. The number of abstract thoughts was significantly higher in the abstract condition ( $M_{abs.} = .88$ ,  $M_{conc.} = .31$   $p < .01$ ), and the number of concrete thoughts was significantly higher in the concrete condition ( $M_{conc.} = 2.08$ ,  $M_{abs.} = 1.18$   $p < .005$ ).

*Abstract mindset and goal activation.* Participants' number of autonomy-related and belongingness-related answers to the *why* questions were subject to separate ANOVAs with self-prime as a fixed factor and participant's chronic measures of self-accessibility (Singelis, 1994) as covariates. In support for hypothesis 1, the number of belongingness-related goals freely listed by participants was significantly higher among those primed with interdependence ( $M = 1.06$ ) compared to participants primed with independence ( $M = .18$ ,  $p < .01$ ). In contrast, the number of autonomy-related goals was significantly higher among participants primed with independence ( $M = 1.12$ ) compared to participants primed with interdependence ( $M = .73$ ,  $p < .05$ ).

*Mindset and goal projection.* Participants' total number of high-level, abstract goals (computed by adding up the number of autonomy and belongingness-related goals) ascribed to John was subject to an ANOVA with self-prime and mindset as factors. In support for hypothesis 2a, a main effect of mindset ( $p < .05$ ) indicated that participants projected more abstract goals to John in the abstract mindset condition ( $M = 1.52$ ) compared to the concrete mindset one ( $M = .88$ ,  $p < .05$ ). Furthermore, participants ascribed more concrete goals to John when a concrete mindset was active ( $M = 2.92$ ) compared to an abstract mindset ( $M = 1.36$ ,  $p < .001$ ). Finally, supporting hypotheses 2b, planned contrasts revealed that, among participants with an abstract mindset, the number of belongingness-related goals was significantly higher for those primed with interdependence ( $M = .69$ ) compared to those primed with independence ( $M = .24$ ,  $p < .05$ ), whereas the number of autonomy-related goals was significantly higher for those primed with independence ( $M = 1.47$ ) compared to those primed with interdependence ( $M = .63$ ,  $p < .05$ ).

## GENERAL DISCUSSION

Results from this research support the notion that whenever individuals view actions at high-levels of abstraction, self-relevant goals can be automatically activated and drive people's perceptions and actions. The impact of active self-conceptions, as provider of readily accessible high-level goals, on people's actions would be maximized under these conditions. In contrast, when individuals view actions at low-levels of abstractions, they tend to focus on concrete experiences and processes of the situation regardless of their active self-conceptions. In this context, the impact of active self-representations on individual's perceptions is impaired.

The findings reported here have several important implications for consumer research. We can expect that self-congruent persuasive appeals may be more effective when individuals view actions at high levels of abstraction. In this context, self-congruity effects (Agrawal &

Maheswaran, 2005; Han & Shiv, 1996) may be particularly strong. In contrast, when consumers view the situation at lower levels of abstraction messages that highlight concrete issues like convenience, availability, and promotions may be more effective. Self-relevant goals activated in the working self-concept can act as background goals that may influence people's choices when fulfilling a focal goal (Shah et al., 2003). The activation of high-level, self-relevant goals facilitated by an abstract mindset can also facilitate individual's success at self-regulation by facilitating the process of avoiding temptations (Fishbach, Friedman, & Kruglanski, 2003), thus helping them to achieve their long-term goals. These issues, along with the study of other determinants of individual's representations of actions (e.g., temporal distance, Trope & Liberman, 2003) are important issues worth exploring in the future, and for which data collection is on the way.

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**SUNDAY, FEB 12 – Morning Sessions Abstracts/Papers**

**Sunday, February 12<sup>th</sup>**

**8:30am – 9:45am: Session 7 (Competitive Paper Sessions)**

**All sessions run simultaneously in the Spirit Dining Room**

**Session 7A (Spirit Dining Room)**

**The Ad Canvas: Role of Emotions in Evaluations of Advertisements**

[Images of Nostalgia - Effects of Perceived Authenticity and Nostalgia on the Evaluation of Visual Images](#)

*Hemetsberger Andrea, Pirker Clemens, University of Innsbruck*

[Effects of Nostalgic Themes in Advertising: The Mediating Role of Ad-evoked Nostalgic Responses](#)

*Chi Hsu-Hsien, Shih Hsin University*

[Silence: Exploring Silence In Television Advertising](#)

*Brittain Laura, Lenoir-Rhyne College and Syracuse University*

[How does Embarrassment Influence Attitude toward Provocative Sexual Appealing Advertisements?](#)

*De Barnier Virginie, Edhec Business School*

*Merunka Dwight, Aix-Marseille University & EUROMED Marseille School of Management*

*Valette-Florence Pierre, University Pierre Mendes, France*

**Session 7B (Spirit Dining Room)**

**Where there is an Intention, There is a Way (Is There?): The Role of Consumer Involvement in Decision Making**

[Why we Give: An Investigation of the Donor Decision Process](#)

*Votolato Nicole, The Ohio State University*

*Ujcic Carolyn A., The Ohio State University*

*Beaulieu Katherine A., The Ohio State University*

*Unnava H. Rao, The Ohio State University*

[Impact of Consumers' Effort Investments on Buying Decisions](#)

*Vishal Lala, Pace University*

*Goutam Chakraborty, Oklahoma State University*

[Information, Attribution, and Price: The Effect of Consumers Placing Responsibility for Prices on Consumers](#)

*Murray Kyle, Dolansky Eric, University of Western Ontario*

[Implementation Intentions, Customer Uncertainty and the Intention-Behavior Link](#)

*Murali Chandrashekar, University of New South Wales)*

*Frank R. Kardes, University of Cincinnati*

*Maria L. Cronley, Miami University*

*Steven S. Posavac, University of Rochester*

**Session 7C (Spirit Dining Room)**

**Self Through the Lens of the “Other”**

[Effects of Mortality Salience on Ethnocentric Consumer Behavior at a Regional Level](#)

*Marchlewski Thomas, Fetchenhauer Detlef, University of Cologne, Germany*

[The Effect of Acculturation on US Hispanics' Socialization and Consumer Behavior](#)

*Shoham Aviv, University of Haifa*

*Segev Sigal, Florida International University*

*Ruvio Ayalla, University of Haifa*

[You Can be Like Me But I'm Nothing Like You: Self-other Asymmetry in the Construction of Uniqueness](#)

*Irmak Caglar, Antonuk Beth, Sen Sankar Baruch College / CUNY*

[To Change or Not to Change: Attitude Shift when Anticipating Group Interaction](#)

*Duhachek Adam, Zhang Shuoyang, Krishnan Shanker, Indiana University*

**9:50am – 11:05am: Session 8 (Special Sessions)**

**[Session 8A \(Spirit Dining Room\)](#)**

**Similar Objects, Similar People, Similar Brands: New Considerations of Similarity and its Implications**

*Chair: Gershoff Andrew, University of Michigan*

*Discussant: Katherine Burson, University of Michigan*

How do we Love it, Let me Count the Ways: Attribute Ambiguity, and the Positivity Effect in Perceptions of Interpersonal Similarity

*Andrew Gershoff, University of Michigan*

*Ashesh Mukherjee, McGill University)*

*Anirban Mukhopadhyay, Hong Kong Univeristy of Science and Technology*

Similarity, Visualization and Concept Evaluation

*Don Lehmann, Columbia University*

*Jennifer Ames Stuart, Bayer*

*Gita Johar, Columbia University*

*Anil Thozhur, Columbia University*

Money: A Bias for the Whole

*Arul Mishra, Himanshu Mishra, Dhananjay Nayakankuppam, University of Iowa*

### **Session 8B (Spirit Dining Room)**

#### **Committed Consumers: Psychological Investment and Consumer Behavior**

*Chair: Norton Michael, Harvard Business School; Leonard Lee, Massachusetts Institute of Technology*

*Discussant: Naomi Mandel, Arizona State University*

Members Only: Why Paying Fees Can Increase Spending

*Leonard Lee, Massachusetts Institute of Technology*

*Michael I. Norton, Harvard Business School*

Impulsive Spending as Predicted by Self-Control Resources

*Kathleen D. Vohs, University of Minnesota*

*Ron Faber, University of Minnesota*

The Endowed Progress Effect: How Artificial Advancement Increases Effort

*Joseph C. Nunes, University of Southern California*

*Xavier Drèze, University of Pennsylvania*

### **Session 8C (Spirit Dining Room)**

#### **Helping Charities Help Themselves: Marketing Communications and Prosocial Behaviors**

*Chairs: White Katherine and John Pelozza, University of Calgary*  
*Discussant: June Cotte, University of Western Ontario*

The Effects of Content, Placement, and Delivery Characteristics on  
Televised Fundraising for Nonprofit Organizations

*Robert J. Fisher, University of Western Ontario*  
*Mark Vandebosch, University of Western Ontario*  
*Kersi D. Antia University of Western Ontario*

Hey, What Gives? The Effects of Altruistic Versus Egoistic Charity  
Appeals on Donation Intentions

*John Pelozza, University of Calgary*  
*Katherine White, University of Calgary*

A Proposed Charitable Donation Taxonomy

*Tanya Drollinger, University of Lethbridge*

**11:10am – 12:10pm: Session 9 (Special Sessions without  
discussants – 1 hour sessions)**

### **[Session 9A \(Spirit Dining Room\)](#)**

**Illuminating a Path Less Traveled: The Dark Side of Consumer  
Relationships**

*Chair: Yany Gregoire, Washington State University*  
*Discussant: No discussant*

Customer Retaliation in Service Failures Contexts: The Effects of  
Perceived Betrayal and Relationship Strength

*Yany Grégoire, Washington State University*  
*Robert J. Fisher, University of Western Ontario*

The Cost of Happiness: Trade-Offs in the Context of Strong Consumer-  
Brand Relationships

*Matthew Thomson and Jennifer Carson, Queen's School of Business*

Guilty and Ashamed of Having a Relationship: Consumer-Company  
Identification and Reactions to an Immoral Action

*Allison R. Johnson, Queen's School of Business*  
*Valerie S. Folkes, University of Southern California*

### **[Session 9B \(Spirit Dining Room\)](#)**

## **The Effect of Inferences on Decision-Making Under Attribute Uncertainty**

*Chairs: Irmak Caglar and Thomas Kramer, Baruch College / CUNY*

*Discussant: No discussant*

Effects of Positive Affect on Omission Detection in the Multi-attribute Evaluation and Ambiguity Aversion

*Susan Powell Mantel, Indiana University,*

*Frank R. Kardes, University of Cincinnati,*

*Alice M. Isen, Cornell University,*

*and Paul Herr, University of Colorado*

The Role of Selective Processing in Inferences Regarding and Choice of Marketing Options

*Steven S. Posavac, University of Rochester,*

*Frank R. Kardes, University of Cincinnati,*

*and J. Josko Brakus, University of Rochester*

The Effect of Preference Strength on Inferences and Choice

*Caglar Irmak, Baruch College*

*Thomas Kramer, Baruch College*

*Sankar Sen, Baruch College*

## **Session 9C (Spirit Dining Room)**

### **Perceptual, Affective and Motivational Processes in Self-Regulation**

*Chair: Ramanathan Suresh, University of Chicago*

*Discussant: No discussant*

Self-Regulatory Resource Depletion Makes People More Extreme in Their Emotions and Judgments: A Possible Mechanism for Ego-Depletion

*Kathleen Vohs, University of Minnesota*

*Nicole Mead, Florida State University*

*Brandon Schmeichel, Texas A&M University*

*Sabrina Bruyneel, Katholik University Leuven*

Moment-to-moment pursuit of hedonic goals

*Suresh Ramanathan, University of Chicago*

*Geeta Menon, New York University*

The Ego-Depleted Chameleon: Self-Regulatory Consequences for Social Asynchrony



*Amy N. Dalton, Duke University*  
*Tanya L. Chartrand, Duke University*  
*Eli J. Finkel, Northwestern University*

**SUNDAY, FEB 12, MORNING SESSIONS: ABSTRACTS/PAPERS**



**Sunday, February 12<sup>th</sup>**

**8:30am – 9:45am: Session 7 (Competitive sessions)**

**All sessions run simultaneously in the Spirit Dining Room**

**Session 7A (Spirit Dining Room)**

**The Ad Canvas: Role of Emotions in Evaluations of Advertisements**

Images of Nostalgia - Effects of Perceived Authenticity and Nostalgia on the Evaluation of Visual Images

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### Abstract

Nostalgic images in advertising permeate the market. However, academic research on whether nostalgia can be evoked with visual cues and whether this has an effect on consumer evaluation is, at best, nascent. This article provides exploratory evidence on the effects of authenticity and nostalgia on the evaluation of images. Findings show that images, which are perceived as nostalgic and authentic, significantly influence image evaluation, whereas authenticity alone did not yield a significant effect. However, authentic pictures are still rated more positive than those which are perceived to be neither authentic, nor nostalgic.

Keywords:

Nostalgia, authenticity, advertising, imagery

## **Images of Nostalgia - Effects of Perceived Authenticity and Nostalgia on the Evaluation of Visual Images**

Nostalgia has gained increasing attention in business publications as a highly effective and persuasive marketing tactic. Recently, there has been a growing interest in nostalgia and consumption experiences in the literature (Stern, 1990; 1992; Goulding, 2001; Schindler and Holbrook, 2003; Holbrook and Schindler, 2004; Brown, Kozinets, and Sherry, 2003). Despite the increasing popularity of nostalgia in the branding and consumer behavior literature, academic research attention with regard to nostalgic elements in advertising has been scarce. There have been some exploratory contributions that provide some support for the notion that nostalgic-themed ads may produce greater recall and preference for the ad (Neeb, Faier, and Unger, 1989). To the author's knowledge only few recent publications (Pascal, Scott, and Muehling, 2002; Muehling and Sprott, 2004) have directly addressed the question, whether visual or verbal nostalgic cues in advertising would have any effect on provoking nostalgic feelings, and cause a more positive evaluation of the respective advertisement. These studies primarily focus on the effects of personal memories of the past. However, literature has brought forward different conceptualizations of nostalgia, which refer to personal nostalgia on the one hand and collective memory of the past (or historical nostalgia), on the other hand (Davis, 1979; Stern, 1992). In addition to that, we introduce the notion of tradition-related nostalgia. Furthermore, perceived authenticity of visual cues and its relation to nostalgia, so far, remained unexplored. This article intends to shed some light particularly on effects of perceived authenticity and traditional nostalgic cues on the evaluation of advertising

images. To this end, we will briefly review literature on nostalgia, authenticity, and imagery research. In the sequel, we will describe the research design and report our results. At the end of the paper, we will discuss our findings and draw implications for consumer research and marketing.

### **Nostalgia and authenticity**

Nostalgia permeates the marketplace, for instance in the form of retro-branding (Brown, Kozinets and Sherry, 2003), but also with new brands that aim to evoke nostalgic feelings. In academic research, nostalgia has been referred to as “an individual’s longing for the past, a yearning for yesterday, or a fondness for possessions and activities associated with days of yore” (Holbrook 1993, p.245; see also: Davis, 1979). Nostalgia refers back to the Greek words *nostos* and *algia* (see: Davis, 1979), meaning ‘to return home’ and ‘pain’. According to this view, nostalgia is a bittersweet emotion caused by a longing for returning home, returning to the good old days. Apart from that ‘personal nostalgia’, the concept has also undergone a development towards a broader interpretation. Nostalgia might also focus on things and activities from an older or ancient era, which are recalled via collective memory from a historical era, or on combining old materials into invented traditions that serve the needs of the present. These two interpretations of nostalgia as a human emotion clearly relate the concept to the past, or history. Hence, nostalgia has a temporal dimension. Both views contend that this feeling could be caused by own experience, but also by looking back to the past, which appears as the better option than the now or the future. Hence, nostalgia may be based on personal

experience, but also on myth and abstraction of communal history, as described by Davis (1979).

Whereas most definitions and reviews of nostalgia put emphasis on its temporal dimension, we contend that there is a combined spatial-temporal component of nostalgia, too. Brown et al.'s (2003) more nuanced conceptualization of nostalgia, for instance, added *arcadia* – an idealized place of the past - to an extended view of nostalgia. This concept of an idealized place, which reflects old values, tradition, and old customs, adds a valuable component to our understanding of nostalgia. Particularly the leisure and tourism industry has frequently opted for this spatial concept of nostalgia as a powerful opportunity to position their service offer. It is different from historical nostalgia in that it does not refer to a past, imagined history, but history is still alive in particular areas, like for instance in Indian villages, or in Alpine regions. However, contrary to consuming history, tradition is prone to becoming detached from its genuine, original context when being offered by an agency thus, cut off from the lived cultural context. Hence, perceived authenticity might play a key role for this form of tradition-related nostalgia. Furthermore, authenticity is often related to traditional rituals, or traditional craftsmanship (Peterson, 2004). Hence, authenticity and tradition seem to be interwoven concepts, at least with regard to particular products and services.

Brown et al.'s contribution on nostalgia and retro-branding (Brown, Kozinets and Sherry, 2003) has brought forward another important argument for the meaning of authenticity with respect to nostalgia. The authors contend that 'retro' involves searching for authenticity in an inauthentic world. This search for authenticity is addressed by many scholars in the field of consumer behavior (e.g.: Belk and Costa, 1998; Holt, 2002;



Kozinets, 2001; 2002; Thompson and Tambyah, 1999). One argument is that brands are increasingly disinterested and detached from their multinational, producing corporations (Holt, 2002). They are detached from their origin, which results in the perception of diminished brand authenticity on the side of the consumer and causes an increased search for authentic, genuine brands (Brown, 2001). In their search for ‘the real thing’ consumers increasingly tend to look back to ‘the good old days’. These developments on the marketplace demonstrate that authenticity is vitally important for brands and thus, brand communication. However, the relationship between authenticity and different forms of nostalgia has not been researched, so far. This article aims to provide evidence of its interrelationship in visual images.

### **Authenticity and nostalgia in images**

Pictures enjoy a superiority effect, meaning that they are cognitively processed much quicker than words, or other abstract concepts (Paivio, 1971; Kroeber-Riel, 1996). They are experiential, richer, more personally relevant, more closely linked to long-term memory, and therefore more effective in advertising (Lutz and Lutz, 1978; Rossiter, 1982; MacInnis and Price, 1987; Burns, Biswas and Babin, 1993). It is not astonishing, therefore, that advertising, has made extensive use of images in communication.

Nostalgic elements in advertisements have proven to be particularly powerful in evoking emotional response to ads. Recent research shows that advertisements with personal nostalgic cues generate a greater number, and a more positively valenced set of nostalgic thoughts (Muehling and Sprott, 2004). Hence, visual nostalgic cues are able to evoke nostalgic thoughts. Moreover, advertisements with personal nostalgic cues resulted in

significantly more favorable attitudes towards the ad and towards the brand. However, other research has demonstrated that individuals viewing ads in the context of their pasts had less favorable ad evaluations (Krishnamurthi and Sajun, 1999). Stern (1990) concludes that such findings would suggest avoiding the use of personal nostalgia, and prefer strategies evoking historical nostalgia. Research on the effects of historical nostalgia in advertising is basically non-existent. However, we know from the works of Stern (1992) and Goulding (2001) that addressing historical nostalgia in consumption experience and advertising texts could have different and important effects on consumer evaluation. We, therefore, will address this gap and investigate effects of authentic and traditional nostalgic elements in visual images on image evaluation, as compared to non-nostalgic images. With regard to visual images, authenticity refers to iconic authenticity as described by Grayson and Martinec (2004). This means that an image does (or does not) reflect that which is considered to be 'the real thing'. We particularly hypothesize that advertising images, which are perceived to be related to genuine tradition, outperform authentic-only images with regard to the overall evaluation of the image. Secondly, we expect images perceived as authentic to outperform images, which are perceived to be neither nostalgic, nor authentic.

When addressing nostalgia in advertising images, we have to take into account that the structure and content of such an image plays a key role in transporting the message elements (Scott, 1994; McQuarrie & Mick, 1999). Scott (1994) has argued that we translate objects into pictures by the process of representation using previously made pictorial conventions or conventions of representation. Those conventions reflect the viewing habits of the culture. Scott further argues that pictures can be understood as

discursive form, capable of subtle nuances in communication. An image is syntactically and semantically dense thus, putting together pictorial elements with particular meanings will not produce the sum of the meaning of the elements. This, of course, means that we should not break up pictures in parts and put them together in order to test for affective response, but rather make an informed choice according to the overall visual rhetoric of an image.

## **Method**

A family farm vacation offer in an Alpine region served as our empirical playground. In a first step, 86 pictures were chosen which apply a visual rhetoric that relates to the positioning of the farm vacation offer. Those were shown to farmers in order to get an expert assessment of the most typical and authentic pictures. Particular attention was drawn on the perceived congruency or inconsistencies of contextual and core elements, because any inconsistency could lead to irritations on the side of the respondents and cause unwanted biases. For determining the contextual elements (the background), we followed the concept of life world ('Lebenswelt') (Schütz and Luckmann, 1979).

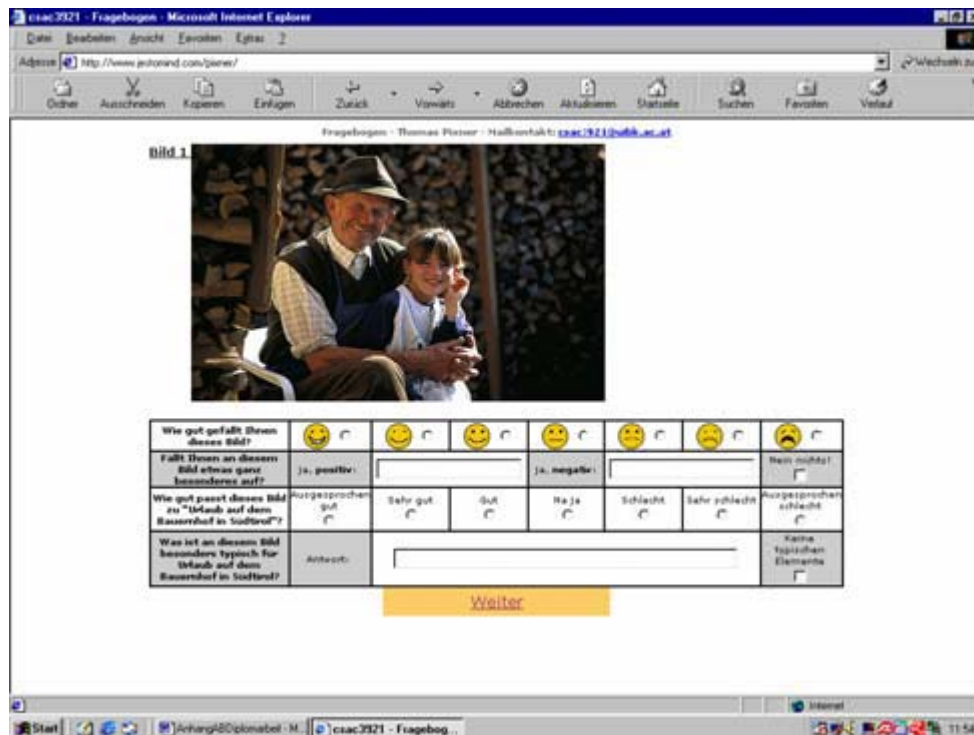
Contrary to social worlds, groups and societies, life world comprises the lived experience of the everyday environment of individuals. Hence, pictures had to be selected, which reflect this everyday context of the farmer's world. In order to ensure an authentic presentation of the life world, 7 farmers were visited, interviewed, and their everyday life was observed. In a second step, 7 members of the farmers association were asked to name the most typical elements of the farmers' life world in the respective region. Two different life worlds had been outlined by them. First, a life world of farmers, who

primarily live uphill in mountainous regions, and make their living from selling milk and meat. The second life world comprises farms, which specialize on making wine, and are situated down in the sunny valleys. These two life worlds are represented in the context of the pictures. We, then, also selected pictures which show authentic contextual elements, however without being typical for the region in question.

The contextual elements, then, had to be combined with core elements (the intended position of the farm vacation offer), which is the encounter of a guest and his host farmer expressing a warm relationship. Additionally, pictures were chosen, which showed a nostalgic encounter, reflected by traditional elements, like for instance the blue apron, the hat, speck, and wine. Those pictures also provoked feelings of remembrance of happy days of coziness (the German 'Gemütlichkeit') and feeling at home, measured by free elicitation in a pre-testing and selection phase. These pictures, according to the pretest, also reflect the genuine and authentic. Although the experimental design would have required testing pictures that are perceived as nostalgic, but non-authentic, there was none. Brown et al. (2003), who claimed that retro-branding (or nostalgic branding) involves searching for the authentic, provide one possible explanation. Hence, by definition there are no nostalgic pictures without being authentic at the same time. This is also our first result with regard to the relationship between those two concepts.

Traditional elements in advertisements have been automatically perceived as authentic, meaning that tradition has to be authentic by definition in order to be perceived as traditional, at least with regard to tourist regions. From the pretested pictures, six were selected which reflected nostalgia, authenticity, or non-nostalgia and non-authenticity, the best, while still applying to the visual rhetoric of the family farm vacation.

In the following, a Web-based questionnaire was designed in order to test for main effects of authenticity and nostalgia on image evaluation. A within subject design was used in this study. Potential biases such as familiarity effects, sensitization and carry over (image exposure was separated in time i.e. shown one after the other, but never on the same screen) were controlled for (e.g. Greenwald 1976). A potential ‘small child pattern’ effect was expected thus we showed children in each of the pictures tested. Nostalgia was measured on a seven-point scale statement: ‘this picture reflects tradition and the region’s heritage’, and authenticity with ‘this picture is typical for family farm vacation in the region of XX’.



**Screenshot 1: image evaluation and authenticity measure for picture 1**

Respondents were also asked to freely report about pictorial elements that caught their eye, because they consider them to be typical or outstanding. Nostalgia proneness as

a psychographic variable was measured on a 7 item scale, 1 being highly important and 7 not at all. Respondents also evaluated the picture as a whole, again on a seven-point 'smiley' scale. Respondents had to evaluate each of the six pictures one after the other in random order. The questionnaire was administered online. An email was sent to all farmers and all current customers of the family farm vacation. In total, 127 guests and 109 farmers answered the questionnaire. Here, we will report only the findings of the guests sample.

## **Results**

Respondents (guest sample) were between 16 and 72 years old ( $M = 44.65$ ,  $SD = 12.00$ ). The range of days spent on a holiday trip was between a minimum of 7.54 ( $SD = 3.40$ ) and 16.10 ( $SD = 4.88$ ) days. 38.80% of the respondents had a university degree, 35.00% served an apprenticeship, 20.40% finished high school, and 5.80% had only minimum required education. Nostalgia proneness was rather high in general ( $M=2.02$ ). Respondents also turned out to be rather homogeneous in that respect with a standard deviation of .75.

The manipulation check showed that pictures 2, 3, and 5 had to be excluded from further analysis, because they did not discriminate satisfactorily with regard to the independent variables (see Table 1).

Picture	n	Authentic (M)	(SD)	Nostalgic (M)	(SD)
1	127	2.10	1.02	2.17	0.99
2	127	3.18	1.16	3.32	1.40
3	127	3.20	1.30	3.80	1.39
4	127	3.17	1.06	3.98	1.44
5	127	2.33	1.08	2.30	1.08
6	127	2.57	1.00	3.93	1.35

Table 1: Means and standard deviations of perceived authenticity and nostalgia for pictures 1 through 6

The following pictures discriminated best and remained in the final analysis:



**Picture 1: authentic and traditional**

**Picture 4: non-authentic, non-traditional**

**Picture 6: authentic, non-traditional**

A cross-check with responses to the open-ended free elicitation question for typical elements additionally supports these findings. Picture 1 was most often associated with traditional, coziness, feeling at home, caring, honesty, genuine, and authentic. Picture 6 was much more associated with having fun, experience new and unfamiliar things, freedom, but also originality and honesty. Picture 4 was strongly associated with nature, naturalness, friendship, and fun, but not with tradition or authenticity. Descriptive

statistics (Table 2) show that picture 1, which was perceived as the most authentic and traditional, was liked best, followed by picture 6, which was perceived as authentic, however not traditional. Picture 4, although including a strong ‘small child pattern’ stimulus, was rated worst among the three pictures. However, the difference between the authentic and the non-authentic picture is very small.

Picture	n	Liking (M)	Liking (SD)
1	127	1.61	0.86
4	127	2.47	0.94
6	127	2.32	1.02

Table 2: Descriptive statistics of image evaluation

For testing the direct effects of authenticity and nostalgia on the evaluation of the pictures, a one way repeated measures ANOVA was applied. Mauchly’s test indicated that the assumption of sphericity was not met ( $\chi^2(2) = 9.17, p < .05$ ). Therefore, a Huynh-Feldt correction ( $\epsilon = .94$ ) was applied (Stevens 1992). The results showed that within subject effects were highly significant ( $F(1.90, 238.76) = 43.35, p < .001$ ). The stepwise comparison of the main effects using a Bonferroni correction, revealed a highly significant result for picture 1 compared to picture 4 ( $F(1,126) = 67.17, p < .001$ ). Hence, perceived tradition-related nostalgia combined with authenticity has a significant effect on the evaluation of an image. Comparing picture 4 and 6 ( $F(1,126) = 3.08, p < .089$ ) yielded no significant result. Authenticity, therefore, is not sufficient to yield a



significant impact on the evaluation of an image. Finally, effect sizes for the contrasts were calculated. The effects were .58 for the comparison of picture 1 against picture 4 and .22 for the comparison of picture 6 against picture 4. Hence, our hypothesis that the ideal combination of authentic and traditional pictorial elements would yield the highest effect was supported. We also tested for a possible moderating effect of nostalgia proneness using linear regression. Although close to significance ( $p=.14$ ), our findings could not support former findings of Schindler and Holbrook (2003), at least not for tradition-related nostalgia proneness.

## **Discussion**

This article has introduced the notion of tradition-related nostalgia and examined its relation to authenticity. Furthermore, we have provided evidence of its effects on the evaluation of advertising images. Our research has shown that tradition-related nostalgia plays a significant role in the evaluation of advertising images. Despite of the fact that one could think of nostalgic feelings towards objects and activities, which are not perceived as being authentic, we could not find tradition-related nostalgia without being perceived as authentic at the same time. We must admit that this does not prove authenticity to be a prerequisite for tradition-related nostalgia. Yet, it is a noteworthy finding and worth being further researched. If so, this would have major implications for brand communication, particularly in the leisure and tourism industry. One of these implications could be that communicating tradition without being authentic would not evoke nostalgic feelings. Moreover, it would be even more important to check whether guests perceive an image to be authentic, before it is used for advertising purposes.

However, the relationship between authenticity and nostalgia still leaves much room for further research. Direct effects of authenticity on image evaluation were non-significant. There are, of course, several possible reasons for that. Free elicitation has brought forward a number of associations with the pictures thus evoking a number of emotions, which we did not control for. Therefore, in a next step a more standardized procedure seems appropriate.

Our findings relate to a very specific service offer of a tourist region. Therefore, we are careful not to generalize our findings with regard to other service offers or products. Future research into other product categories is needed. The findings are also limited to individuals who already had a joyful experience with the vacation offer in question. Therefore, the results may well be partly affected by a personal nostalgia effect as well. In reality, the two forms of nostalgia can probably not be separated at all. Yet, our study shows that tradition-related nostalgia seems to be a powerful concept and is worth being further explored.

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Effects of Nostalgic Themes in Advertising: The Mediating Role of Ad-evoked  
Nostalgic Responses  
*Chi Hsu-Hsien, Shih Hsin University*

Effects of Nostalgic Themes in Advertising:  
The Mediating Role of Ad-evoked Nostalgic Responses

(Proposal)

**Purpose of the Study**

The proposed study is a follow-up of the research program that explores and examines how consumers experience and process nostalgia in advertising and marketing communications. The research program starts out with the assumption that consumption experience of nostalgic themes in advertising frames the way consumers interpret and then respond to the advertisements. A preliminary study by Chi (2005) explored the types of interpretive frames that consumers derive and conceive from exposure to different nostalgic themes in advertising. Based upon the findings drawn from the previous study, the present study is designed to examine the effects of nostalgic themes in advertising by focusing on the mediating role of ad-evoked nostalgic responses.

**The Preliminary Study: Consumer interpretation of nostalgia advertising**



The purpose of the preliminary study is to construct an understanding of the consumption experience of nostalgia from the consumer's point of view. Instead of seeing advertising as stimuli or a bunch of cues loaded with brand information, it is posited that, nostalgic themes displayed in advertising comprise a symbolic whole that embodies the experiential aspect of consumption, that is, consumer fantasies, feelings, and fun (Hirschman & Holbrook, 1982; Holbrook & Hirschman, 1982). The research focus was on the how the consumer reads and interprets the nostalgic themes in advertising. In-depth interviews were conducted with 18 college student informants regarding their preferences for nostalgic themes in advertising, the interpretive frames they used in reading, consuming nostalgia, and the perceived connection between brand and nostalgia experiences.

## **Method**

Qualitative data collection method with open-ended, ethnographic interviews was considered appropriate for the purpose stated above, for which the focus is on the how's of people's lives (Fontana & Frey, 2003). The course of interview also necessitated the exposure to various nostalgic themes and eliciting mental representations from informants.

A typology of nostalgic themes was generated by adapting both Holak & Havlena's (1992) and Stern's (1992) categorizations of nostalgic imagery and themes. The categorization system revealed four types of nostalgic themes: Real-Personal, Real-Historical, Virtual-Personal, and Virtual-Historical nostalgia. While Real nostalgia is based upon an individual's direct experience, Virtual nostalgia is learned

through indirect, vicarious communication. In contrast to Personal nostalgia which encourages the retrieval of episodic, autobiographic memory, Historical nostalgia provokes semantic, culturally shared memory of an era or a period of time. A sample of TV commercials broadcasted in Taiwan was purposively sought out. The sampling procedure resulted in seven commercials that each corresponded to one of the four nostalgia types. Each informant was invited to view all seven of them prior to the interview.

Metaphor Elicitation Technique developed by Zaltman and his colleagues was applied to explore the consumer's unconscious cognition of nostalgia during interviewing. As Zaltman et al. (1995, 1997) put it, ZMET is designed to surface the mental models that drive consumer thinking and behavior and characterize these models in actionable ways using metaphors of consumers' own choice. The technique involved both qualitative and quantitative tools, such as visual images generalization, story-telling, and interpretive frameworks.

### **Data Analysis and Interpretation**

Each interview was transcribed and analyzed. Data analyses on the interview texts resulted in findings regarding preferences for nostalgic themes, the interpretive frames elicited while viewing nostalgic commercials.

*Preference for nostalgic themes*

An analysis of nostalgia preference given by informants showed that Real nostalgia connecting direct, personal encounters in life was most preferred among others.

According to the informants' own revelations, it was powerful in evoking vivid and emotion-laden imageries and cognitions of the past. In addition, Personal nostalgia was preferred over Historical themes of nostalgia. Given the autobiographical nature of the memory of a person's past, Personal nostalgia generated a sense of intimacy and self-reference in informants. However, social structural characteristics, such as gender and family background, did not come up to be factors that determine preferences for nostalgic themes.

#### *Interpretive frames of nostalgia*

Three interpretive frames emerged from analyses of interview texts. They are frames of evoked memory, consumption experience, and metaphor. First, the memory frame implies the type of memory or nostalgic reflection that can be retrieved and re-lived in the moment of ad exposure. There are two types of nostalgia-related memory, autobiographic and collective memory. The former refers to personal or episodic memory, that is, memories about the self and events in one's own life (Baumgartner, Sujan, & Bettman; 1992). The latter refers to memory that is shared across individuals in a cultural context. Culturally shared memory is recollection of symbolic representations of a long-gone time or era (Stern, 1992).

The second frame refers to the experiential aspect of nostalgia consumption. Sources of nostalgic encounters determine how nostalgia is experienced or felt, that is,

the yearning for what is long gone or the longing for the idealized past (e.g., Brown et al. 2003; Holak & Havlena, 1992; 1998). Direct encounters make the nostalgic experience memorable and emotional, while vicarious encounters generate emotionless imagery and aesthetic response to the idealized past. The nostalgic imagery has nothing to do with the deep emotional disturbance that afflicted nostalgia sufferers of time past.

The metaphor frame implies the meanings embedded in nostalgia. Two metaphors are drawn from nostalgic experience, the paradox of time passage and the essence of nostalgia. The former focuses on the notion of an uneasy balance between past and future, and the conflict between progress and primitivism. The essence of nostalgia pertains to the presence of a sense of authenticity. Authenticity is vitally important to nostalgic experience. It generates a sense of uniqueness, intimacy and significance in relating to the consumer's self.

### **Research Propositions: Nostalgia Advertising Effects**

There are two major findings developed from the preliminary study. First, consumers do prefer certain type of nostalgic theme over the others. Specifically, Real nostalgia is most preferred. Personal nostalgia is preferred over Historical nostalgia. The two types of nostalgic themes are preferred for they encourage the kind of experience and responses that are emotional and self-referencing. The finding indicates that the type of nostalgic themes determines the experience

and responses to a nostalgic advertisement. Experience and responses that are self-referencing and emotion-laden are more attractive to consumers.

Secondly, three frames of reference for interpretation emerge from data analysis of the interview texts. It appears that consumption experience of nostalgias is more complex and textured than previously assumed. Previous studies generally adopt a more structure view of nostalgia (e.g., Baker & Kennedy, 1994; Holbrook, 1993; Holbrook & Schindler, 1994, 1996). The structural model encourages approaching nostalgia as well-developed networks of associated cognitive and affective elements. This conceptualization overlooks the complexity and the dynamic nature of nostalgic experience. A reconceptualization is in order to capture the experiential aspect and the underlying, metaphorical meaning of nostalgia.

Research propositions regarding the effects of nostalgia advertising are developed out of the implications stated above. It is proposed that the influence of nostalgia depends on the type of nostalgic responses and experience perceived during ad exposure. Furthermore, the type of nostalgic themes determines ad-evoked nostalgic responses and experience perceived. The propositions for research are:

P1: Nostalgia is a complex, holistic whole of consumption experience. It is characterized by the content of memory stored in the form of associative network of cognitive and affective conceptual nodes. It also possesses the experiential aspect of consumption, which epitomizes fantasies, feelings, and fun. Finally, there are symbolic meanings in nostalgia. The paradox of time passage is likely to reference the personal memory in the psychological context. The essence of nostalgia is likely to be located in the social, cultural context.

P2: The type of nostalgic themes determines the type of memory retrieved, the nature of consumption experience, and the significance of metaphorical meaning of nostalgia. Personal nostalgia encourages autobiographical memory, which is self-referencing. Historical nostalgia encourages recollections of a long-past time.

The locale of memory is placed on the cultural artifacts and symbols of an era. Real nostalgia is likely to reference the sentiment, bittersweet feeling toward the idealized past. Virtual nostalgia is likely to reference the aesthetic response to the past. Persona-Real nostalgia is more likely to generate the metaphor of time passage. Historical-Virtual nostalgia is more likely to generate the metaphor of authenticity.

P3: Preference for nostalgic themes is determined by nostalgia-related experience. Preferred nostalgic themes are likely to have greater effects on attitudinal measures. Here a mediating role of ad-evoked nostalgic responses is proposed.

## **Method**

To further examine the effects of nostalgia advertising and develop the conceptualization of consumption experience of nostalgia, the researcher explores ad-evoked nostalgic responses by exposing consumers to various nostalgic themes. An experimental design is devised so that effect comparisons among different types of nostalgic themes and executions are possible. In addition,

measures of ad-evoked nostalgic responses are to be developed and tested for reliability and validity.

### **Experimental Design, Stimuli, and Research Participants**

A 2 (type: personal vs. historical) x 2 (source: real vs. virtual) factorial design is devised. Type of nostalgia is operationalized by distinguishing the literary antecedents and values inherited in nostalgic themes. There are two types, personal and historical. Personal nostalgia preserves the innocence of childhood. Historical nostalgia enacts culturally shared meanings of a long past era. Source of nostalgic encounter is operationalized by distinguishing the ways that nostalgic experience is perceived. Real nostalgia is sought out by direct, personal encounters, while Virtual nostalgia is established by vicarious encounters with media and popular culture.

To isolate specifically the effects of nostalgic themes in advertising, fictitious print ads are used. Four versions of nostalgic themes, Personal-Real, Personal-Virtual, Historical-Real, and Historical-Virtual, are to be created by combining advertising elements of plot, setting and characters. The criteria for selection of brand and product context include the consumption experience of college students who are to be the major participants and the generalizability of study findings.

### **Measures**

There are two sets of dependent measures. The first set measures ad-evoked responses. Studies of nostalgia advertising effects indicate that both brand- and message-based thoughts can be elicited during exposure to a nostalgic ad (e.g., Baumgartner, Sujan, & Bettman, 1992; Muehling & Sprott, 2004; Sujan, Bettman, & Baumgartner, 1993). Ad-evoked responses are thus to be measured and coded into the following two categories, brand-related and nostalgia-related. A three-dimensional measure of nostalgia-related responses is further developed to capture the texture and complexity of nostalgic experience.

The second set of dependent measures is attitudinal measures. Standard measures of brand attitude (Abr) and attitude toward the ad (Aad) are used to assess the persuasiveness of nostalgia advertising.

### **Research Implications**

Theoretical and practical implications are expected to develop from the current investigation.

There is implication for understanding consumption experience of nostalgia. The researcher proposes a more nuanced idea of nostalgia than the notion of dichotomized components.

Nostalgia is characterized by three discrete dimensions, that is, its memory content, the nature of experience generated, and metaphorical meaning encapsulated in the idealized past. There is also implication for advertising and marketing management and strategy. By endowing nostalgia with texture, nuance, and dimensionality, we consider consumers as active participants in the communication, and relate to their life experiences (Belk, 1988).



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Silence: Exploring Silence In Television Advertising  
*Brittain Laura, Lenoir-Rhyne College and Syracuse University*

## **Exploring silence in television advertising**

Developing new ways to reach consumers is the force that drives advertising. This paper is a study of one of the more elusive, yet effective tools today's television commercial creators are using to break away from the pack.

Silence.

The purpose of this study is to discover how silence is being used in television advertising.

I have looked at how advertisers are using silence alone, as well as in combination with other technical attributes, such as conversational sound, instrumental sound, natural and environmental sound, special effects, and voiceover to engage consumers.

In addition, I looked at how advertisers use silence to evoke viewers' emotions, punctuate information, create division, and generate attention.

Quantitative research was the method of investigation in this study. Many months, days and hours have been invested in analyzing 460 commercials, both foreign and domestic, for their use of silence. This analysis was supported by information derived from many books, articles, and websites, covering advertising specifically as well as more general issues concerning non-verbal communication and the cultural use of silence.

Through these 460 examples, this study demonstrates how silence evokes emotion, punctuates information, generates attention and creates a dividing line between the program and/or advertisement, which precedes or follows a commercial.

These analyzes show that the most popular use of silence in television advertising is pairing silence with the conversation between two characters. The least popular way of

using silence in television advertising is the use of complete silence. Only five out of the 460 commercials in the sample use complete or near complete silence.

What other perhaps surprising results did this study reveal? I found that 67% of all the analyzed commercials contained natural, environmental, expected or industrial sound in conjunction with silence. However, only 8% used special effects and silence in combination.

When compared to domestic-made spots, foreign television commercials use more subtle sound cues. When looking at the overall sound, foreign commercials used more natural sound in conjunction with silence than their domestic counterparts by a margin of 12 percentage points. American advertising was found to be more speech-focused, using more overall sound with voiceover, conversation, music and lyrics than foreign advertisers by a margin of 17 percentage points.

I also discovered that foreign advertisers use more silence than domestic advertisers.

By comparing the length of the commercials with the amount of silence used, I found that 71% of the foreign 30 second commercials contained some use of silence, which was 10 percentage points higher than domestic advertisers in the same category.

And in the 60 second commercial category, 83% of the foreign commercials contained some form of silence verses 66% of the domestic market, which equals a 17 percentage point difference in the use of silence between the foreign and domestic advertisers.

In the 21st Century where bigger, brighter, bolder, is considered the norm in television advertising, this paper argues that the opposite may be true.

When it comes to television advertising, silence can indeed be golden.

How Does Embarrassment Influence Attitude toward Provocative Sexual Appealing Advertisements?

*De Barnier Virginie, Edhec Business School*

*Merunka Dwight, Aix-Marseille University & EUROMED Marseille School of Management*

*Valette-Florence Pierre, University Pierre Mendès, France*

**DONE**

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## **Session 7B (Spirit Dining Room)**

### **Where there is Intention, There is a Way (Is There?): The Role of Consumer Involvement in Decision Making**

Why we Give: An Investigation of the Donor Decision Process

*Votolato Nicole, The Ohio State University*

*Ujcic Carolyn A., The Ohio State University*

*Beaulieu Katherine A., The Ohio State University*

*Unnava H. Rao, The Ohio State University*

## Abstract

Nonprofit agencies seek to make valuable contributions to society as providers of public services, but in order to continue their good works, nonprofit organizations need to take a strategic approach to fundraising that uses their limited resources to effectively target donors. Critical to this approach is an understanding of the donor decision process and donor motivations. What are the differences in the thought processes of donors and non-donors? What motivates a donor to give to a specific nonprofit organization? Unfortunately for these agencies, little relevant research exists to answer these questions because fundraising is not a recognized academic discipline. The purpose of this paper is to evaluate the importance of two motivational factors, relevance and recognition, and to evaluate the thought process of the individual donor to provide implications specific to the nonprofit sector. The results of two studies confirm that personal relevance is a significant predictor of donation behavior. Personal relevance can be established by the donor himself (i.e., measured), or personal relevance can be instilled by an organization (i.e., manipulated). This suggests that fundraising appeals can be tailored to increase the relevance of the nonprofit agency's mission to the audience, thus creating an increase in donations. These studies also support a cognitive-based approach to understanding donor thought processes, offering nonprofit organizations practical insights for fundraising. Within our findings, individuals with high relevance to a cause were more likely to believe that cause was a major problem in our society, that a solution could be found, and that their personal contribution could make a significant difference in attaining that solution.



# WHY WE GIVE: AN INVESTIGATION OF THE DONOR

## DECISION PROCESS

### INTRODUCTION

Nonprofit agencies seek to make valuable contributions to society as providers of public services; as social, political, environmental, and community advocates; and as sponsors of the arts, religion, medical research, and recreational activities. Generally, the ability of a nonprofit agency to raise funds often determines its impact. In recent times, private donors play an increasingly greater role in financing nonprofit agencies due to decreasing government support (Hibbert & Horne, 1996). This shift in financing raises questions about the individual donor. What are the differences in the thought processes of donors and non-donors? What motivates a donor to give to a specific nonprofit organization? Unfortunately for these agencies, little relevant research exists to answer these questions because fundraising is not a recognized academic discipline. The purpose of this paper is to evaluate the importance of two motivational factors, relevance and recognition, and to evaluate the thought process of the individual donor to provide implications specific to the nonprofit sector.

### CONCEPTUAL BACKGROUND

#### Donor Motivation

Traditionally, research in donor motivation is polarized by two opposing viewpoints: egoism and altruism. *Egoism* is the belief that a person donates because he/she receives personal benefit from doing so. *Altruism* is the belief that a person donates because he/she has a desire to benefit another person. Individuals supporting egoism argue that altruism cannot exist because no selfless action is completely absent of personal benefit. They assert that a donor will benefit personally because he/she will feel satisfaction from the making a donation, creating a selfish

motivation for the selfless act and making altruism impossible (Belk, 1975). Conversely, researchers supporting altruism suggest that donation is a selfless act and any benefit the donor receives in the process is merely a positive side effect (Radley & Kennedy, 1995).

We believe that both egoism and altruism tell only half the story each. If people donated only because they receive personal benefit from that act, it is difficult to explain the many charitable acts of individuals who don't directly benefit from their kindness. Similarly, people being selective about the causes that they donate to indicates that altruism has its limits. We believe that donations are driven by an altruistic spirit in general. However, egoism regulates the altruism by confining the charitable behavior to causes that are personally meaningful. If the cause that is being promoted does not fit within an individual's life schema, the probability of donation would be low because the individual cannot make sense of the cause. That is, the appeal for charity has little meaning for the individual.

One way by which meaningfulness of a cause to an individual is affected is by the personal relevance of the cause. When an issue is within the experiential realm of an individual, it is more meaningful to that individual. For example, while fight against cancer is viewed as a major undertaking, individuals who have not had experience with cancer patients might find information on fight against cancer to be less involving, less meaningful, and less compelling to act on. On the other hand, if they have had experience with cancer (personally, or someone close having suffered cancer), then the cause of fight against cancer is more meaningful to them.

Some past research has examined the role of personal relevance, or relatedness in the context of donation behavior. Biologist William Hamilton (1971) first explained altruistic behavior in animals as a product of natural selection; animals exhibited helping behavior only to increase the genetic fitness of their kin. Other researchers similarly examined the role of

personal relevance specific to donor motivation. Prince et al. (1993) showed that relatedness is a strong predictor of donor decisions, specifically nonprofit agency choice. Using ethnographic interviews of 218 major donors, the authors identified seven distinct donor giving profiles, each with distinct motivations. Prince et al. (1993) found that past consumers of certain nonprofit services, termed “Repayers”, represented the largest number of donors to medical and educational causes representing 43% of all donations. Dawson (1988) also demonstrated the importance of the relevance motivation. The author measured the importance of reciprocity (i.e., relevance), self-esteem, income, and career as motivators for donor behavior. Dawson (1998) found that only reciprocity and income were accurate predictors of donor behavior.

In sum, people are generally charitable, and donate based on whether the cause makes sense to them. For causes that are personally relevant, the likelihood of donation will be higher than causes that are not relevant.

It is possible that for causes that are not relevant, other forms of ego-boosting might prod individuals into donating. For example, being recognized as one of the donors in an open forum (e.g., brochures, newspapers) might make the act of donating more meaningful to an individual even though the cause itself may not be as meaningful. Thus, they may be more likely to donate when offered some form of reward or recognition. For example, Werner (1992) demonstrated that recognition reduced employees’ use of sick leave by 28%. Recognition is used readily by nonprofit agencies to publicly communicate an agency’s respect for those who support it because recognition elevates the recipient’s status in the eyes of others (Fisher & Ackerman, 1998). Bendapudi, Singh, and Bendapudi (1996) demonstrated the strong impact of recognition on likelihood to donate. They showed that labeling an individual as “kind or generous” (i.e., recognition) increases his/her likelihood to give to an organization.

The link between recognition and donor behavior has also been explored by examining the paucity of anonymous donations (e.g., Glazer and Konrad, 2001). The authors analyzed existing donor data at several major public institutions. Their analysis showed that only 1.3% of 1991 donations to the Pittsburgh Philharmonic, 1% of donations to Harvard Law School, and 1% of donations to Carnegie Mellon University were anonymous. Additionally, Glazer and Konrad (2001) examined semipublic donors, or donors whose contribution is recognized only if the contribution fits in a specified donation range. Their examination shows that the average donation given in 1988-1989 to Carnegie Mellon's was \$525, close to the minimum value of minimum amount for recognition which was \$500. Likewise, 93% of donors to the Harvard Law Fund donated contributed exactly \$500, which was the minimum amount necessary for donor recognition. Combined, this research suggests donors' need for recognition.

Though past research has examined relevance and recognition individually, research has yet to examine these two factors simultaneously. From past research, we assert that people are more likely to donate money to an organization whose purpose is consistent with their needs. For example, if a woman has breast cancer, she should be more likely to donate to the Breast Cancer Foundation than someone who has never experienced breast cancer first-hand (i.e., themselves or someone close to them). When an organization is highly relevant to someone's needs, we suggest that fulfilling these needs is more important than receiving recognition for donating to a particular cause. For example, the woman with breast cancer will probably donate to the organization in the hopes that a cure can be found, not because she is being recognized for her donation. However, if an organization's purpose is not consistent with an individual's current needs (i.e., not highly relevant), then fulfillment of needs will not be enough to motivate

a person to donate. Instead, we propose that people with low relevance require recognition as a donation motivator. Formally, we propose that

H1: Individuals with a high relatedness to a cause will be more likely to donate regardless of the level of recognition promised.

H2: Individuals with low relatedness to a cause will be more likely to donate when recognition is promised than when it is not.

### The Donor Decision Process

Current research on donor behavior focuses only on the types of motivations underlying donor behavior. While this topic assists nonprofit organizations in attracting individual donor's dollars, we believe that understanding donors' thought process would make this research even more useful. Thus, our research also attempts to understand the process a donor undergoes that ultimately results in the positive helping behavior.

Cognitive-based models and behavioral-based models dominate consumer behavior research and can be used to better understand donor thought processes. Cognitive-based models assume that consumers behave rationally, and information processing influences all consumer decisions. These models also assume that a change in attitude always precedes a change in behavior. Conversely, a behavioral-based model suggests that consumer decisions are primarily influenced by environmental and circumstantial factors. According to this model, consumers do not engage in extensive information processing because most consumer behavior requires low involvement and low risk. A cognitive-based model was created to examine the donor decision process (e.g., Guy and Patton, 1989). This donor model was applied to fundraising, emphasizing the importance of changing the manner that an individual processes information about the nonprofit agency in order to influence donor behavior. Guy and Patton's (1998) donor decision

model included five basic steps: (1) awareness of the need, (2) interpretation of the situation, (3) recognition of personal responsibility, (4) perception of ability/competence to help, and (5) implementation of helping action. Contrary to the proposed cognitive-based donor decision process model, Hibbert & Horne (1996) concluded that donor behavior was largely the result of social learning and conditioning, and therefore more influenced by situational factors. However, Hibbert and Horne (1996) did not provide empirical evidence or primary research data to support their behavioral-model based conclusions. Evidence, therefore, seems to support Guy and Patton's (1998) cognitive-based model of the donor decision process.

Consistent with Guy and Patton (1998), we propose a cognitive-based model to outline the thought process that a donor experiences. However, we believe that there are differences in the thought process between people that view a cause as relevant versus not relevant that ultimately result in donation to an organization or a lack thereof. We suggest that Guy and Patton's (1998) proposed model is more likely to explain the thought processes of those people that view a cause as relevant. That is, people are more likely to believe that the problem represented by a cause is a significant problem, that it can be cured, and that they can make a difference, if the problem is more relevant to them. Thus:

H3: Donors with a high relatedness to a cause versus those with a low relatedness to a cause will (1) believe the cause is a significant problem within society (2) believe that there is a solution to the problem and (3) believe that their personal contribution will have a significant impact on the nonprofit's ability to reach that solution.

Experiment 1 tests these assertions. Specifically, in this experiment we will examine the relationship between relatedness and recognition, as outlined in hypotheses one and two. We will also attempt to discern the beliefs of people as outlined in hypothesis three.

## EXPERIMENT 1

114 subjects were recruited to participate in this experiment. We conducted a 2 (low vs. high relevance) X 2 (recognition vs. no recognition) between-subjects design. Due to the widespread impact of cancer within society, we selected cancer research as the nonprofit cause for investigation, and subjects were recruited with regards to their relevance to cancer. 64 staff members at a university were utilized as the low relevance group, and 50 cancer survivors recruited from a metro area cancer support group and the 2005 Race for the Cure 5K were recruited as the high relevance group. All subjects were asked to complete a survey.

Recognition was manipulated by informing half of the participants within the survey that their names would be published in their local Sunday newspapers if they donated to the National Cancer Institute. The remaining half of the surveys made no mention of recognition. The survey used a series of seven-point scale questions to measure three categories of beliefs about cancer: beliefs about the problem significance, beliefs about potential solutions, and beliefs about the individual's ability to solve the problem. Demographic information, past volunteer history, past donation history, and likelihood to donate were also assessed.

### Results

*Likelihood to donate.* An analysis of variance of the belief index with personal relevance and recognition as the independent variables revealed a main effect of personal relatedness on likelihood to donate. The results demonstrate that the likelihood of donating was higher for the high relevance ( $M= 3.29$ ) versus low relevance group ( $M= 2.72$ ,  $p<0.001$ ). Thus, donation behavior is a function of personal relevance to the cause. The main effect of recognition on donation behavior and the interaction between personal relevance and recognition were

insignificant. The lack of a main effect of recognition suggested that contrary to expectations, recognition was not important to donation behavior. This result will be discussed further.

*Beliefs about significance of the problem.* Participants' responses to five statements from the questionnaire that reflected individual beliefs about the significance of cancer as a societal problem were found to be reliable ( $\alpha = 0.84$ ). An analysis of this construct revealed a significant main effect of relevance such that participants who had first hand experience with cancer (i.e., high relevance) expressed stronger beliefs about cancer being a major societal problem ( $M=6.37$ ) than those who did not have such experience (i.e., low relevance) ( $M=5.41$ ,  $p<0.05$ ). This finding shows a different thought process for individuals with high versus low relevance to a particular cause. Specifically, higher relevance is linked to a greater likelihood that a problem is initially recognized.

*Beliefs about potential solutions.* Participants' responses to four statements from the questionnaire that reflected individual beliefs about the ability of cancer to be cured found to be reliable ( $\alpha = 0.78$ ). An analysis revealed a significant main effect of relevance such that participants with personal experience with cancer expressed stronger beliefs about the ability of cancer to be cured ( $M=6.21$ ) than those without personal experience with cancer ( $M=4.72$ ,  $p<0.05$ ). This finding indicates that people with high versus low relevance to a cause have different thought processes at the information search stage of the donation decision process. High versus low relatedness is linked to a greater likelihood that an internal information search results in a belief that a solution exists.

*Beliefs about individual ability to solve the problem.* Participants' responses to three statements from the questionnaire that reflected an individual's beliefs about their personal ability to make a difference in the search for a cure for cancer were found to be reliable ( $\alpha =$



0.83). An analysis revealed a main effect of relevance such that participants with personal experience with cancer expressed stronger beliefs about their ability and willingness to make a personal impact in the search for a cure for cancer ( $M=6.54$ ) than those individuals without personal experience with the disease ( $M=4.90$ ,  $p<0.05$ ). This finding demonstrates that the difference in the thought processes between people for whom relevance to a cause is high versus low continues into the donation and post-donation stages of the donation decision process. High versus low relevance is linked to greater likelihood to donate and greater satisfaction following the donation.

## Discussion

Experiment 1 attempted to examine the relationship of relevance and recognition to donor behavior and to test the proposed donor decision process model. We hypothesized that donations would be more likely from the high relevance group than the low relevance group, regardless of the recognition offered. The results of Experiment 1 confirm hypothesis 1. The results demonstrate that personal relevance to the organization's mission is a significant predictor of donor behavior. Within our findings, not only were the individuals with high relevance to cancer more likely to donate to nonprofit organizations supporting cancer research, but these individuals, relative to individuals with low relatedness to the cause, were more likely to believe that cancer was a major problem in our society, that a cure for cancer could be found, and that their personal contribution could make a significant difference in attaining a cure. These results confirm hypothesis 3 and support our proposed donor decision process model.

Finally, we hypothesized that recognition would be a significant predictor of donation behavior only when a cause had low relevance to individuals. The results do not support recognition as a predictor of donor behavior. It is possible that respondents experienced social

desirability bias, but the fact that the surveys were anonymous, and the design was between subjects, eliminates this as a possible alternative explanation. Rewards and recognition simply might help in some causes but not others. This issue needs further research.

One limitation of experiment 1 is that relevance was a measured variable. Measured variables carry with them the baggage of confounds that come with it. For example, one could argue that people who believe that cancer is a major problem in the society and that they should help in addressing it are also those for whom cancer is more relevant. In experiment 2, the goal was to see if organizations could achieve the same results by making a cause relevant to certain individuals through their communications. Thus, relevance was manipulated, not measured.

## EXPERIMENT 2

In experiment 2, we attempted to see whether relevance could be manipulated rather than simply measured, as in experiment 1. A two-cell design was used to conduct this study. Relevance was manipulated by giving subjects an article to read about a student from the same university as the participants (i.e., high relevance) or another university farther away (i.e., low relevance). The article described a student that was the victim of hunger. We asked subjects about their willingness to support the World Food Program in combating hunger. The results indicated that subjects that read about a student from their university (i.e., high relevance) were more willing to donate to the World Food Program than subjects that read about a student from another university (i.e., low relevance). These findings from study 2 corroborate the findings from study 1. In addition, the findings from this study indicate that organizations can create relevance to a particular cause to encourage donation. The discussion of this study has been condensed due to space limitations, but will be discussed further at the conference.

## CONCLUDING REMARKS

In order to continue their good works, nonprofit organizations need to take a strategic approach to fundraising that uses their limited resources to effectively target donors. Critical to this approach is an understanding of the donor decision process and donor motivations. The results of two studies confirm that personal relevance is significant predictor of donation behavior. Personal relevance can be established by the donor himself (i.e., measured), or personal relevance can be instilled by an organization (i.e., manipulated). This suggests that fundraising appeals can be tailored to increase the relevance of the nonprofit agency's mission to the audience, thus creating an increase in donations. These studies also support a cognitive-based approach to understanding donor thought processes, offering nonprofit organizations practical insights for fundraising. The results of these studies will hopefully generate greater interest in fundraising research and create a greater understanding of the specific motivations for inspiring positive helping behavior to benefit nonprofit organizations.

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Impact of Consumers' Effort Investments on Buying Decisions

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## Abstract

An essential component of numerous consumer purchasing decisions is the effort to be invested in consummating the transaction. In this paper, we propose that the greater the amount of effort invested by the consumer toward the purchase of a product, the more she will spend on the product. Through a pair of studies we demonstrate that consumers who spend more effort spend more on the product. The decision to spend more money is driven by the consumers' desire to justify her decision to invest effort in the first place. Finally, the effect of effort on amount spent is moderated by decisional control such that in the presence of decisional control the effect is stronger.



## IMPACT OF CONSUMERS' EFFORT INVESTMENTS ON BUYING DECISIONS

Consumers typically acquire products in exchange for money. In addition to monetary resources, consumers may also expend effort in purchasing products. This effort expended may be in multiple forms including the physical effort involved in driving to a store and searching for a product within the store, or the cognitive effort involved in evaluating a set of alternatives. For instance, John Doe may expend physical effort by driving to a computer store 10 miles away while Jill might expend cognitive effort by spending 10 minutes evaluating competing brands in the computer store. In addition, the effort expended may also vary in magnitude with some purchases involving more effort and others less. For instance, Jill might spend as little as 10 minutes or as much as 45 minutes evaluating competing brands in a computer store.

The purpose of this paper is to investigate the influence of the effort invested by consumers in shopping on their buying behavior. As an illustration, consider the following scenario:

Nancy and Jennifer are interested in buying a desktop computer. Nancy spent 10 minutes on the website of a computer retailer searching for and evaluating competing brands of desktop computers before she found the computer she was looking for. On the other hand, Jennifer who visited the same website, spent 45 minutes before she found the computer she liked. Assuming Nancy and Jennifer looked at identical amounts of information, who is more likely to buy her top preference? Who will be willing to pay more for her top preference?

From an economic perspective, the effort spent in evaluating computers should have no impact on buying behavior. Each woman should base her decision solely on the costs and benefits of her top preference. Since the amount of effort invested in selecting the best computer is not diagnostic of the qualities of the computer selected, the effort spent should not influence the buying behavior of the either woman.

On the other hand, research on the sunk cost phenomenon would suggest that each woman will also take into consideration her sunk effort (Arkes and Blumer 1985; Staw 1976). The magnitude of the sunk effort, whether they spent 10 minutes or 45 minutes searching for a desktop computer, will then influence the buying behavior of each woman. Since Jennifer spent 45 minutes evaluating desktop computers, she would be expected to be more likely than Nancy (who spent only 10 minutes) to buy her top preference and be willing to pay more for it.

In the following sections, we explore the predictions of the sunk cost phenomenon and potential explanations. Next, we test these predictions through two studies and discuss our findings.

## SUNK COST PHENOMENON

Research across multiple disciplines has found that consumers incorporate information on previous investments into their future decisions (Arkes and Blumer 1985; Boulding, Morgan, and Staelin 1997; Staw 1976; Thaler 1980). For instance, Thaler (1980) found that a family is more likely to go to a basketball game on a stormy day when they had paid for the tickets than when they got them for free. Arkes and Blumer (1985) found that when people are presented with a scenario where they had to choose from two meals they had already purchased, one for \$3 and the other for \$5, most of the subjects chose the expensive meal. More recently, Boulding, Morgan, and Staelin (1997) found that experienced managers based their decision to invest in a failing new product on the amount already invested.

Although most of the evidence supporting the sunk cost phenomenon involves a monetary sunk cost, a few prominent researchers in this domain have indicated that consumers will be expected to commit the same decisional errors when the sunk cost is of a non-monetary

kind, such as investments of time or effort (Arkes and Blumer 1985; Kahneman and Tversky 1979, p. 290; Staw 1981, p. 577). Heath (1995) found that the subjects were more likely to commit decisional errors when the nature of the sunk investment was incompatible with the nature of the future investment. This resembles the situation in the scenario described earlier where the sunk investment involved time and effort in evaluating computers while the future investment involved the money to be paid for the computer.

Thus, based on the sunk cost literature, it would be expected that consumers investing effort in searching or evaluating a product would be more likely to buy it and be willing to pay more for the product.

H<sub>1</sub>: Amount of effort invested will influence (i) willingness to buy and (ii) amount paid

### Theoretical Explanations

There are a host of potential explanations for the sunk cost effect including a need for self-justification (Staw 1976), desire to reduce waste (Arkes and Blumer 1985), change in decisional goals with project progress (Garland and Conlon 1997), and risk-seeking behavior in light of prior losses (Kahneman and Tversky 1979; Whyte 1986). Of these explanations, self-justification and desire to reduce waste are particularly relevant to the context of effort as a sunk cost.

*Self-Justification.* According to this explanation which is derived from dissonance theory, individuals have a need to be correct, especially when the decision is taken by them (Staw 1976). Driven by this need to make good decisions, individuals justify their decisions to themselves and others (Brockner, Shaw, and Rubin 1979; Staw 1981). Similarly, consumers in purchasing situations like to make good decisions. If they invest a large amount of effort in picking a brand,

then they are driven to purchase it. For instance, having spent 45 minutes evaluating computers, Jennifer might buy her top preference in order to justify her decision to spend so much effort. On the other hand, if she didn't buy her top pick, she would be faced with the challenge of justifying to herself, the amount of time and effort spent in evaluating computers. Thus, self-justification concerns might explain a consumer's increased likelihood to buy and willingness to pay more.

H<sub>2</sub>: The influence of effort on (i) willingness to buy and (ii) amount paid, is mediated by self-justification

*Desire to Reduce Waste.* Individuals have a desire to not appear wasteful. Consumers who incur a sunk cost tend to follow it up with a subsequent investment because of fear that the initial investment would be wasted (Arkes and Blumer 1985). In the scenario described earlier, if Jennifer decided not to buy the computer she had picked after 45 minutes of evaluation, she might feel like the time and effort spent was wasted. On the other hand, if she bought the computer she liked the most, the time and effort spent would not go to waste. Thus, desire to reduce waste might explain consumers increased likelihood to buy and willingness to pay more.

H<sub>3</sub>: The influence of effort on (i) willingness to buy and (ii) amount paid is mediated by desire to reduce waste

## STUDY 1

Eighty-four students enrolled in undergraduate business classes at a large Midwestern university were offered extra credit for participation in this study. Effort in evaluating computers was manipulated at two levels in a between subjects design.

### Procedure and Research Instrument

This study was conducted using a web-based instrument constructed for the purpose of this study. To control for potential confounding variables, the study was administered in a computer lab in batches of 20-30 students. Subjects arriving in the computer lab were given an instruction sheet which told them how to access the web-based instrument.

The first few pages of the web-based instrument told subjects that they were going to be provided information on four competing brands of desktop computers. Based on this information, they were going to evaluate the four brands and then pick their top preference. The evaluation task began with a screen that resembles the Mouselab instrument that has been used extensively in studies involving effort manipulations (Garbarino and Edell 1997; Payne, Bettman, and Johnson 1988) (see Figure 1 for a screenshot). The screen listed four brands and four attributes with boxes to enter attribute scores for each brand on each attribute. It also contained a set of four boxes to enter the total unweighted score for each brand. A set of four information buttons led to expert reviews on each of the four desktop computers (see Figure 2 for expert reviews for Brand A). Subjects were expected to use the reviews to enter attribute scores and then compute the total for each brand.

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Insert Figures 1 and 2 here  
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After this, subjects were asked to respond to a set of dependent measures on their willingness to purchase their top pick and the amount they were willing to pay for that computer. Next, they were asked to respond to a set of items on self-justification and desire to reduce waste. The next page asked subjects questions on affective state, manipulation checks, and demographics. The web instrument was programmed to also collect additional information such as time spent on each page.

## Manipulation of Effort

Effort was manipulated by varying the difficulty in evaluating the four brands. In the evaluation module, subjects in the high effort condition had to contend with expert reviews that showed up in the same window (requiring them to go back and forth between windows) rather than a pop-up window, and were more difficult to read because of a smaller font and a poorly contrasting font color. Furthermore, the attribute scores recommended by the experts in the high effort condition were in decimals rather than whole numbers. Although subjects didn't have to use the exact same scores given by the experts, most of them did which made adding up the attribute scores more difficult.

## Results

A major concern with the research instrument was whether subjects had actually looked at the information they were asked to utilize. Specifically, subjects were asked to evaluate the brands using information from experts. However, subjects weren't forced to utilize this information to generate attribute scores. Put differently, subjects could have filled in random numbers for the attribute scores to just get through the study, thus defeating the purpose of the study. Fortunately, the website log revealed that every subject had looked at the expert reviews pages.

In order to test for the manipulation of effort, a perceptual measure of effort and measure of time taken or response latency were used. Both these measures have been utilized in previous literature to measure effort (Payne, Bettman, and Johnson 1988). Subjects in the high effort condition took longer to complete the task than those in the low effort condition ( $M_{low}=13.5$

minutes vs.  $M_{\text{high}}=19.5$  minutes,  $F(1, 81)=9.68$ ,  $p<0.01$ ). Moreover, subjects in the high effort condition also perceived the task to be more effortful than those in the low effort condition ( $M_{\text{low}}=2.71$  vs.  $M_{\text{high}}=3.97$ ,  $F(1, 81)=18.16$ ,  $p<0.01$ ).

The main hypothesis of this study is that subjects who spend more effort in evaluating brands of desktop computers will be more likely to buy their top pick and be willing to pay more for it. The results revealed that subjects who invested more effort were willing to pay significantly more than those who invested less effort ( $M_{\text{low}}=\$777$  vs.  $M_{\text{high}}=\$853$ ,  $F(1, 81)=4.78$ ,  $p<0.05$ ). Also, subjects investing more effort were more likely to buy the computer than those who spent less effort, but the difference was not significant ( $M_{\text{low}}=5.21$  vs.  $M_{\text{high}}=5.57$ ,  $F(1, 81)=2.09$ ,  $p>0.1$ ).

The above results notwithstanding, it might be argued that the manipulation of effort used here may have manipulated more than just effort. In fact, in another study investigating the role of effort, it was found that subjects who were assigned difficult computations were more likely to experience negative affect than those who were assigned easy computations (Garbarino and Edell 1997). Other research on waiting time has revealed that those who waited longer got angrier (Hui and Tse 1996; Hui, Thakor, and Gill 1998). Now, if subjects did in fact experience negative affect, based on the findings of Garbarino and Edell (1997), subjects should be less likely to engage in purchasing behavior. Thus, an affect-driven behavior makes a prediction counter to what we have hypothesized. Put differently, the presence of affect would, if anything, weaken the results obtained here.

To assess the role of affect, we compared the low and high effort groups in terms of affect and found that those in the high effort condition did in fact experience more negative affect than those in the low effort condition ( $M_{\text{low}}=3.70$  vs.  $M_{\text{high}}=4.55$ ,  $F(1, 81)=14.07$ ,  $p<0.01$ ).

So, we ran the above analysis with affect as a covariate and found that the effect of effort on amount subjects would pay for a desktop computer was magnified as would be expected ( $F(1, 81)=6.38, p<0.01$ ).

In general, it is difficult to manipulate effort without also manipulating affect. However, it is comforting to know that the accidental manipulation of affect (although only marginal), actually works towards weakening the results of this study. Thus, the significance of the effect of effort in spite of the existence of some affect speaks for the strength of these results. On the other hand, taking out the effect of affect analytically offers even stronger results.

The influence of effort on buying behavior may be explained by a desire to justify one's decision to spend effort or as a desire to reduce the effort already wasted. In order to test for these two explanations, we conducted tests of mediation by running regressions with and without each mediator (Baron and Kenny 1986). Using the measures collected for self-justification and desire to reduce waste, two different summated indexes were generated. These were then entered as independent variables in a regression of effort on the dependent measures. In the test of self-justification as a mediator, it was found that entering self-justification as an independent variable weakened the coefficient of effort when it was regressed against the amount subjects were willing to pay ( $\beta=0.24, p=0.03$  to  $\beta =0.21, p=0.06$ ). Since willingness to buy had turned out to be non-significant in analysis described earlier, it was not used as a dependent measure for a test of mediation. In the test of desire to reduce waste as a mediator, it was found that the coefficient of effort was unaffected by the introduction of desire to reduce waste into the regression ( $\beta=0.24, p=0.03$  to  $\beta =0.26, p=0.02$ ). Thus, the test for self-justification as an explanation was supported but the same was not supported for desire to reduce waste.



## Discussion

Using a web-based instrument, we manipulated the effort in searching and evaluating desktop computers. The findings were consistent with two of the three hypotheses. Specifically, subjects who invested more effort were likely to spend more on a computer and this effect was strengthened when affect was used as a covariate ( $H_1$ ). The decision to spend more on a computer was driven by the subjects' desire to justify their decision to invest effort in searching and evaluating ( $H_2$ ). The role of desire to reduce waste as an explanation was not supported ( $H_3$ ). A surprising result of this study was the failure of willingness to buy as a dependent measure.

## DECISIONAL CONTROL

Although the results of Study 1 support the influence of effort, it is not clear if these results would pan out the same way in a natural setting. One major difference between Study 1, a laboratory experiment, and a person who decides to go to a website to buy a desktop computer is that in the former situation the task was not determined by the subject. Instead those who had agreed to participate in Study 1 were instructed to go to a certain website, evaluate four desktop computers and pick the best one. Thus, subjects in Study 1 lacked control over the decision to shop.

Control is defined as the active belief that one has a choice among responses that are differentially effective in achieving the desired outcome (Langer 1983). Researchers investigating control have investigated various aspects such as behavioral, decisional, and cognitive control (Averill 1973). Behavioral control is the direct action taken on the environment to influence a threatening event; cognitive control relates to the interpretation of threatening events; and, finally, decisional control is the opportunity to choose among various possible

actions. Most previous research on control has employed one of these forms of control in testing the role of control. Among these different forms of control, it is the role of decisional control that is most relevant to the question raised in the previous paragraph.

Previous research investigating the role of decisional control (Schoorman and Holahan 1996) has found that when subjects felt they didn't have control over their decision to spend money they were less likely to commit sunk cost errors. Drawing a parallel to the role of effort, it may be said that if subjects don't perceive having control over the task characteristics of the study, their buying behavior would be less likely to be influenced by the amount of effort invested. Conversely, if subjects did experience decisional control, then the effect of effort on buying behavior would be expected to be stronger. This might be formally stated as,

H<sub>4</sub>: Decisional control moderates the relationship between effort and (i) willingness to buy and (ii) amount paid. Specifically, when decisional control is high, the effect of effort on (i) willingness to buy and (ii) amount paid, will be stronger than when decisional control is low.

## STUDY 2

The purpose of Study 2 was to test the role of decisional control as a moderator of the relationship between effort and buying behavior. A total of 95 students from an introductory business course at large a Midwestern university were used as subjects for this study. This study used a 2 (Effort: high, low) X 2 (Decisional Control: high, low) between subjects full factorial design. The manipulation of effort was identical to the one in the previous study.

### Manipulation of Decisional Control

Previous literature that has utilized decisional control has operationalized it by manipulating choice. Thus, in a typical manipulation, subjects in the high decisional control group get to choose from a set of alternatives while those in the low decisional control group are assigned to one of the alternatives (Langer and Rodin 1976). Decisional control was manipulated on the same lines with subjects in the high control group getting to choose one of two studies to participate in while those in the low control group were assigned to one of the two studies. Here, it is important to note that all the subjects performed the exact same task. Thus, subjects were given an illusion of control rather than any real sense of control.

#### Procedure

Subjects arriving at the experimental facility were given a handout with descriptions of two different research studies. In a pretest, these studies had been found to be equivalent in terms of perceived similarity ( $M=6.18$  on a scale with anchors, 1=very similar, 9=very different) and overall evaluation ( $M_{\text{StudyA}}=5.45$ ,  $M_{\text{StudyB}}=6$ ,  $t_{10}=-0.37$ ,  $p>0.1$ ) and as would be expected both were equally likely to be chosen (36% vs. 64%,  $t_{10}=0.90$ ,  $p>0.1$ ). In spite of their equivalence, subjects in the pretest had said that the choice gave them a sense of control ( $M=7.27$  on a scale with anchors, 1=no choice, 9=complete choice). The two study descriptions were such that they revealed nothing about the actual task yet differed on a number of variables unrelated to the task such as the sponsor of the study (Education or Business department), place where the study was being conducted (computer lab 2 minutes or 5 minutes away), approximate duration of the study (20 or 30 minutes), etc. (see Table 1 for a description of the two studies).

After reading the descriptions, the subjects in the high decisional control group were asked to pick the study they wished to participate in while those in the low decisional control

group were assigned to one of the two studies. The two groups were conducted in different sessions to eliminate any feelings of unfairness among the subjects. Next, subjects went to the computer lab where their study was being conducted (which was actually the same web-based study) and responded to the web instrument described in Study 1.

## Results

Effort had been successfully manipulated across the high effort and low effort conditions. Those in the high effort condition took significantly longer to complete the study as compared to those in the low effort condition ( $M_{low}=14$  minutes vs.  $M_{high}=21.3$  minutes,  $F(1, 91)=53.07$ ,  $p<0.01$ ). There was also a significant difference in perceived effort, with subjects in low effort condition finding the task significantly easier than those in the high effort condition ( $M_{low}=2.51$  vs.  $M_{high}=3.60$ ,  $F(1, 91)=17.09$ ,  $p<0.01$ ). The control manipulation also worked out as expected. Those in the high control condition experienced a significantly greater sense of control than those in the low control condition ( $M_{low}=6.36$  vs.  $M_{high}=1.30$ ,  $F(1, 91)=249.07$ ,  $p<0.01$ ).

Although the manipulations were effective, we were concerned about some sort of a bias created by the two studies used to manipulate control. Specifically, we were concerned that the results of this study may be driven by a perceived difference between the two study descriptions, study A and study B, given to subjects to manipulate control. In order to test for this, we compared the subjects who did either study A or B on a number of variables and found no difference across the two studies. Specifically, subjects participating in either study were equally capable of performing the task ( $M_{StudyA}=5.12$  vs.  $M_{StudyB}=4.87$ ,  $F(2, 92)=0.383$ ,  $p>0.1$ ), took the same amount of time to complete the study ( $M_{StudyA}=17.85$  minutes vs.  $M_{StudyB}=17.75$  minutes,  $F(2, 92)=0.99$ ,  $p>0.1$ ), were equally willing to buy the desktop computer, were willing to pay

similar amounts, and were also similar in terms of their scores on for self-justification ( $M_{\text{StudyA}}=3.63$  vs.  $M_{\text{StudyB}}=3.75$ ,  $F(2, 92)=0.263$ ,  $p>0.1$ ) and desire to reduce waste ( $M_{\text{StudyA}}=5.12$  vs.  $M_{\text{StudyB}}=5.26$ ,  $F(2, 92)=0.254$ ,  $p>0.1$ ).

Next, we tested for the proposed interaction between effort and decisional control as predicted in  $H_4$ . The interaction between effort and control was significant for the amount paid ( $F(1,91)=4.045$ ,  $p<0.05$ ). Subjects who spent more effort and had control were willing to pay \$890 while those who had control but invested lesser effort were willing to pay only \$795. On the other hand, for subjects who had low control, the corresponding numbers for high and low effort were \$822 and \$850, respectively. This interaction between effort and control was not significant for willingness to buy ( $F(1,91)=2.11$ ,  $p=0.15$ ). Thus  $H_4$  is partially supported. Finally, as in Study 1, entering affect as a covariate increased the size of the interaction effect ( $F(1,91)=4.04$ ,  $p=0.047$  to  $F(1,90)=4.35$ ,  $p=0.040$ ).

## Discussion

This study provided support for the hypothesized interaction between effort and decisional control. Specifically, we found that when subjects experienced decisional control, the effect of amount of effort invested on buying behavior was strengthened.

## CONCLUSIONS

This paper explored the role of the effort spent by consumers on buying on their buying behavior. Consistent with the prediction of the sunk cost effect, we found that subjects did treat the effort spent as a sunk cost. Consequently, the more effort they spent in evaluating desktop

computers, the more they were willing to pay for them. This effect was moderated by decisional control such that the effect of sunk effort was stronger when they felt they had decisional control.

The findings of this paper have some obvious implications for managers. Retail stores that are located far away from their target markets could gain some comfort from the knowledge that the consumers who do come to shop there are likely to spend more per trip. Also, marketers should try to get consumers to spend more time in evaluating products. Consider websites such as Shopping.com that offer consumers a number of criteria on which to evaluate products. The more number of criteria there are, the longer consumers are expected to spend evaluating a product. Having spent so much effort evaluating a product, the consumer would then justify her decision to spend so much time and effort by buying the product.

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Figure 1

Screenshot of main page of Evaluation Module

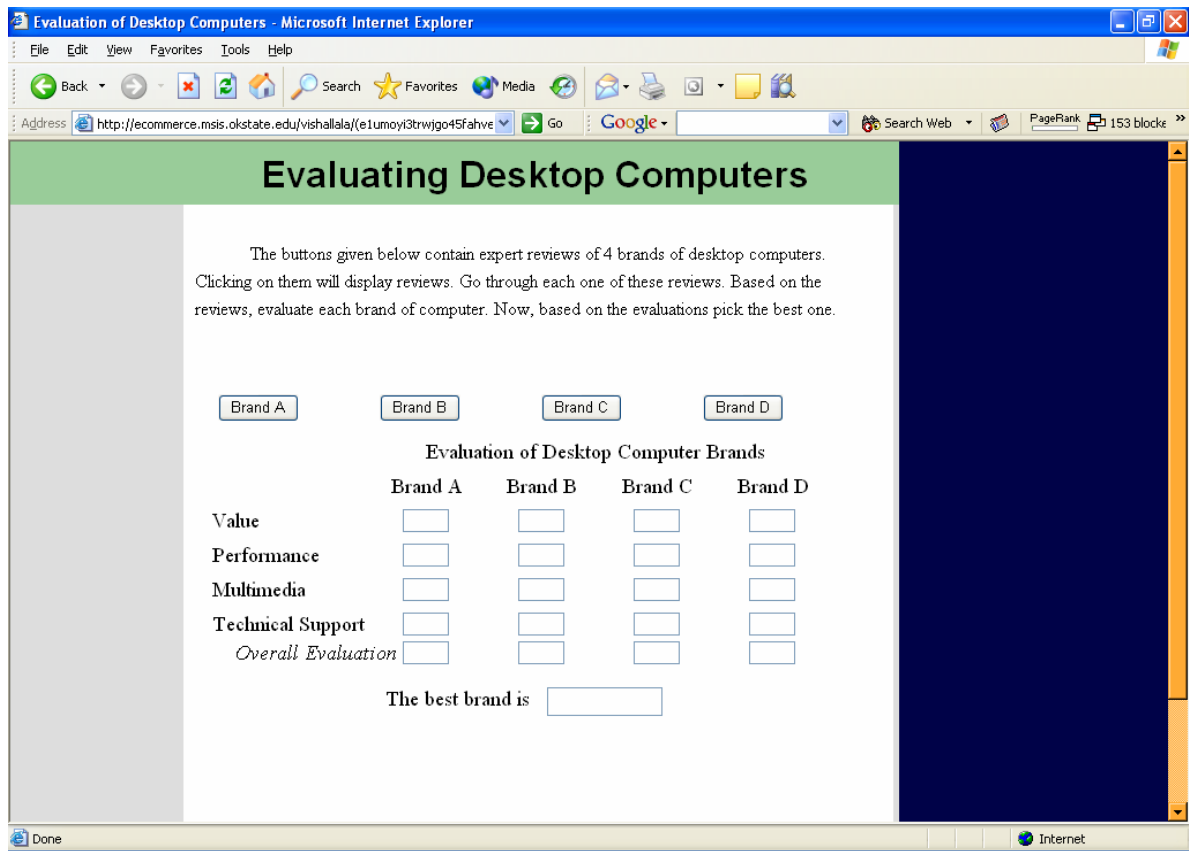


Figure 2

Expert Review for Brand A

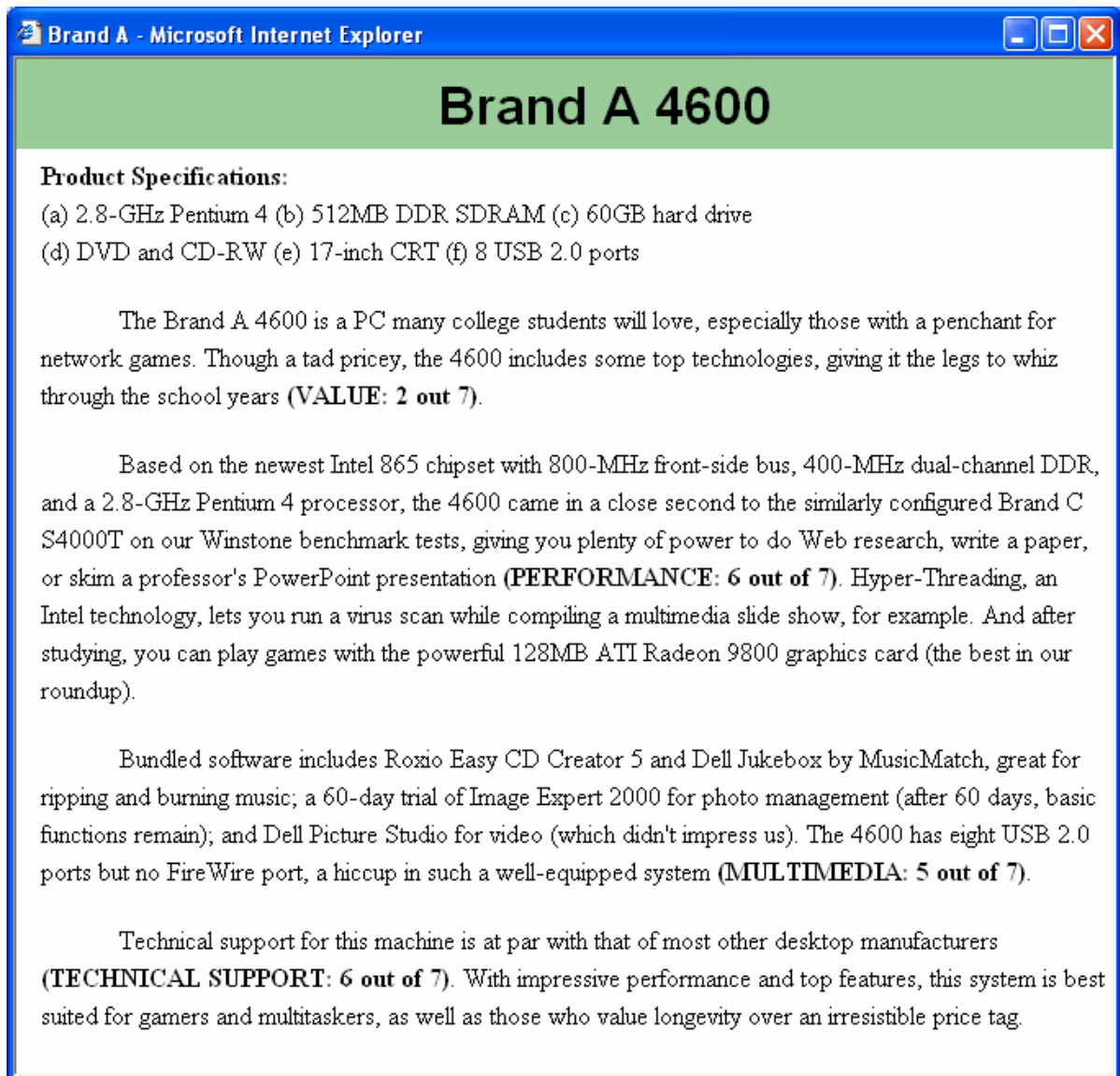


Table 1  
Study Descriptions

Research Study A	Research Study B
<p>This research study is being conducted by the Education Department and it involves mathematical calculations. This study is the last of a series of 5 studies. More than 100 students have participated in previous versions of this research. This study will be conducted in the Instructional Services computer lab which is on the first floor of Instructional Services, a 5 minute walk from here. Once you arrive at the computer lab, the study will take approximately 30 minutes. As an incentive for participation in this study you will not only receive class credit but will also be entered into a lucky draw for \$15.</p>	<p>This research study is being conducted by the Business Department and it involves desktop computers. This study is the first of a series of 5 studies. You are the first set of students to participate in such a study. This study will be conducted in the Wood Hall computer lab which is on the second floor of this building, a 1 minute walk from here. Once you arrive at the computer lab, the study will take approximately 20 minutes. As an incentive for participation in this study you will not only receive class credit but will also be entered into a lucky draw for \$5.</p>

Information, Attribution, and Price: The Effect of Consumers Placing  
Responsibility for Prices on Consumers

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Implementation Intentions, Customer Uncertainty and the Intention-  
Behavior Link

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## **Implementation Intentions, Customer Uncertainty and the Intention-Behavior Link**

"The best-laid plans of mice and men often go astray"

-- Robert Burns

People often form good intentions that never reach fruition. Intentions are particularly ineffective when forgetting, procrastination, or distraction from other goals or activities increase the difficulty of self-regulation. One way to overcome these obstacles is to form implementation intentions, or intentions that are supplemented with detailed plans and contextual cues that serve as reminders to perform intention-relevant activities (Gollwitzer, 1999). In addition to specifying a desired end state, implementation intentions link goals to situations by taking the form, "I intend to do *y* whenever situation *z* is encountered." If sufficiently strong action-situation associations are formed in memory, the action is performed automatically whenever the relevant situation is encountered.

Implementation intentions have been shown to be effective in increasing the intention-behavior relation in a wide variety of contexts -- including completing class assignments (Gollwitzer & Brandstatter, 1997), solving puzzles (Webb & Sheeran, 2003), remembering to take daily vitamin supplements (Sheeran & Orbell, 1999), screening for cervical cancer (Sheeran & Orbell, 2000), performing breast self-examinations (Orbell, Hodgkins, & Sheeran, 1997), and eating healthy foods (Verplanken & Faes, 1999). Implementation intentions can also facilitate self-regulation by enhancing the prospective memory performance of older adults (Chasteen, Park, & Schwarz, 2001).

## **Project Motivation: Uncovering a Generative Process**

How do implementation intentions enhance the fulfillment of a stated behavior? The dominant explanation derives from work by Gollwitzer and colleagues. The underlying process explanation recognizes that while intentions increase commitment to a goal or a desired end-state, implementation intentions specify precisely how a goal will be executed. This entails predecision making, or making a decision before a situation requiring action is encountered. Expending cognitive effort at an early stage in the decision process reduces the amount of effort needed at later stages. Implementation intentions also involve reflecting on the appropriate times and circumstances for goal-relevant activities. This enables consumers to seize opportunities more quickly, and to pursue goals more efficiently and persistently. Implementation intentions also facilitate goal-relevant behavior by encouraging consumers to form action-situation associations in memory and to rehearse these associations until an action sequence can be triggered automatically by an appropriate situational cue. Automatically activated intentions are mentally represented in a single efficient cognitive unit that emphasizes general plans and goals rather than specific action details, and are capable of controlling relatively complex sequences of behavior (Bargh, Gollwitzer, Lee-Chai, Barndollar, & Trotschel, 2001).

In this project, we engage a different process explanation for why individuals who augment their behavioral intentions with contextual details are more likely to actualize the behavior in question. Specifically, we conjecture that the act of “contextualization” will systematically influence the strength (or certainty) with which intentions are formed. In turn, the uncertainty surrounding stated intentions will influence the translation of intentions to behavior. Methodologically, we are guided by emerging work on simultaneously modeling the magnitude and uncertainty in judgments (e.g., Chandrashekar et al, 2000, 2005)

Our analysis therefore proceeds in two stages. In the first stage, we investigate the impact of “contextualization” on the level and uncertainty of stated intentions. In the second stage, we examine the translation of uncertainty laden intentions to actual consumer behavior. The present study applied the Gollwitzer and Brandstetter (1997, experiment 2) paradigm to a consumer context in which participants were given a free sample of a new product for use at home. Non-student participants were randomly assigned to implementation intention or control conditions. In the implementation intention condition, participants received a calendar and were asked to indicate the exact dates, times, places, and usage situations in which they intended to use the new product and were asked to visualize using the new product during these dates, times, places, and usage situations. In the control condition, participants were asked if they intended to use the new product, but no questions about plans or contextual details were presented. Attitudes, intentions, and intention latencies were measured in a controlled laboratory setting in Session 1. At the end of Session 1, all participants received a free sample of the new product to take home. Session 2 was conducted in the field. Two weeks after Session 1, participants received an unexpected questionnaire containing attitudinal, intention-related, and behavioral measures by mail and were asked to complete these measures at home.

### **Variables under scrutiny**

The main focus in the research is the comparison of the implementation intention condition and control condition, i.e., what are the consequences of *contextualization*? At the same time, we recognize the importance of controlling for initial customer attitudes. In the extant implementation intentions research, scholars have not generally controlled for attitudes towards the task per se. We, however, recognize that *initial product evaluations* may have a strong impact on intentions and may interact with the implementation intention manipulation.



Finally, we consider the impact of a personality variable in influencing the impact of contextualization and initial product evaluations. Specifically, we examine *Need to Evaluate*, which centers on the degree to which individuals form opinions toward a wide variety of objects and evaluate these objects quickly (Jarvis & Petty, 1996). We conjecture that Need to Evaluate will moderate the impact of contextualization and product evaluation on consumer intentions.

### **Method**

Because this was a proprietary study, details about the new product or the sponsor cannot be revealed. The new product is a liquid product used for cleaning a wide variety of everyday household objects. The new product had not yet been launched during this experiment. The cover story stated that the purpose of the study was to examine the effects of several different personality variables on responses to new products. To bolster the cover story, participants were asked to complete a battery of personality scales at the end of Session 1.

### **Participants**

Two hundred and six consumers participated in a laboratory setting in Session 1, and in a field setting in Session 2. Participants were adults recruited from a local church group and a local school. Age ranged from 19 to 79 years, 85% were female, and 86% were primarily responsible for grocery shopping for the household. Household size ranged from 2 to 10. Anonymity was ensured by asking participants to create their own code number using the first letter of their mother's first name, the first letter of her maiden name, and the first letter of their own place of birth, and the first digit of their date of birth. This procedure was used to control for experimenter bias and demand effects. Participants received \$25 for participating.

## **Procedure**

Upon arrival, each participant received a demonstration of how to use the new product, and an explanation of the benefits of the new product. Participants were randomly assigned to implementation intention or control conditions. In implementation intention conditions, participants received a calendar and were asked to indicate the exact dates, times, places, and purposes for which they intended to use a free sample of the new product over the next two weeks. They were also asked to visualize themselves using the new product in each of these situations. In control conditions, participants were merely asked to indicate whether or not they intend to try the free sample over the next weeks. At the end of Session 1, all participants received a free sample of the new product to take home.

All participants were asked to indicate their attitudes and intentions concerning the new product on eleven-point semantic differential scales. Participants indicated, “Do you intend to try [the new product]” on a scale ranging from 0 (Definitely will not try [the new product]) to 10 (Definitely will try [the new product]); “Do you intend to try [the new product] more than once?” on a scale ranging from 0 (Definitely will not) to 10 (Definitely will); “How much do you like this product idea?” on a scale from 0 (Dislike very much) to 10 (Like very much); “The idea of this product is:” 0 (Ridiculous) to 10 (Great idea); “If it were available where you shop, how likely would you be to buy [the new product]?” on a scale from 0 (Not at all likely) to 10 (Very likely). Finally, subjects completed the Need to Evaluate Scale (Jarvis & Petty, 1996).

In Session 2, two weeks later, participants received an unexpected follow-up questionnaire by mail. The follow-up questionnaire contained the same attitude and purchase intention measures used in Session 1. It also included several behavioral measures concerning whether, when, and how often consumers used the free sample of the new product.

## Models

### Stage 1: Intention Formation

We examine intention formation within the JUMP model (Chandrashekar et al 2005), which can be expressed as follows:

$$(1) \quad \text{INTENT}_i = \alpha + \text{IM}_i + \varepsilon_i; \quad \text{var}(\varepsilon_i) = \sigma^2 + \text{IU}_i + \kappa_i$$

where INTENT, IM and IU denote, respectively, the stated intention, intention magnitude, and intention uncertainty, respectively;  $\sigma^2$  denotes the measurement- and model-error variance and  $\kappa_i$  captures sources of error variance not accounted for by IU. We explored the interplay of three variables on intentions -- contextualization (CONTEX), initial evaluations (EVAL) and need to evaluate (NEV). Accordingly, we specify IM and IU as follows:

$$(2a) \quad \text{IM}_i = \beta_1 \text{CONTEX} + \beta_2 \text{EVAL} + \beta_3 \text{NEV} + \beta_4 \text{CONTEX} * \text{EVAL} + \beta_5 \text{CONTEX} * \text{NEV} + \beta_6 \text{EVAL} * \text{NEV} + \beta_7 \text{CONTEX} * \text{EVAL} * \text{NEV}$$

$$(2b) \quad \text{IU}_i = \gamma_1 \text{CONTEX} + \gamma_2 \text{EVAL} + \gamma_3 \text{NEV} + \gamma_4 \text{CONTEX} * \text{EVAL} + \gamma_5 \text{CONTEX} * \text{NEV} + \gamma_6 \text{EVAL} * \text{NEV} + \gamma_7 \text{CONTEX} * \text{EVAL} * \text{NEV}$$

The parameters of interest can be estimated in a straightforward manner using iterated feasible generalized least squares (see Chandrashekar et al 2005 for the estimation process).

### Stage 2: Consequences of Uncertain Intentions for Actual Behavior

In this stage, we focus on the frequency of product usage (NUSE) and examine the interplay of stated intentions and intention uncertainty on actual usage frequency. We examined the following equation:

$$(3) \quad \text{NUSE} = \tau_0 + \tau_1 \text{INTENT} + \tau_2 \text{IU} + \tau_3 \text{INTENT} * \text{IU} + \xi.$$

Drawing from the widely-accepted perspective that weakly-held attitudes are unlikely to guide subsequent behavior, we anticipated that high levels of intention would inhibit the translation of stated intentions to actual behavior, i.e., a negative estimate for  $\tau_3$ .

## *Results*

### **Stage 1: Intention Formation**

**Overall model testing.** The results indicated the following: (a) a likelihood-ratio (LR) test reveals that the overall two-dimensional model of intention (magnitude-uncertainty) was significant ( $\chi^2_{14} = 643.45, p < 0.0001$ ), and (b) LR-tests indicate strong support for a significant contribution of the drivers of magnitude of intentions ( $\chi^2_7 = 299.26, p < 0.0001$ ) and of intention uncertainty ( $\chi^2_7 = 134.63, p < 0.0001$ ).

**Impact of Contextualization.** The results indicated that all three main effects (CONTEX, EVAL, NEV), all two-way interactions and the three-way interaction were significant in the magnitude specification (equation 2a). In turn, all main effects, all two-way interactions (except for the CONTEX\*EVAL interaction) and the three-way interaction were significant.

In order therefore to understand the impact of contextualization on the magnitude and uncertainty of intentions, we computed the net impact of CONTEX on IM (see equation 2a) and IU (see equation 2b), respectively, as follows:

$$(4a) \quad \partial IM / \partial CONTEX = \beta_1 + \beta_4 EVAL + \beta_5 NEV + \beta_7 EVAL * NEV$$

$$(4b) \quad \partial IU / \partial CONTEX = \gamma_1 + \gamma_4 EVAL + \gamma_5 NEV + \gamma_7 EVAL * NEV$$

We then examined these net impacts at various levels of EVAL and NEV. Figure 1 displays the net impact of CONTEX on IM for various levels of NEV at high and low levels of EVAL and Figure 2 displays the results for IU. The results reveal that when consumers have unfavorable

initial evaluations: (a) at low need-to-evaluate, contextualization increases intention magnitude and decreases uncertainty, and (b) at high need-to-evaluate, contextualization does not impact intention magnitude or uncertainty. In turn, when consumers have favorable evaluations: (c) at low need-to-evaluate, contextualization does not impact intention magnitude or uncertainty, and (d) at high need-to-evaluate, contextualization increases intention magnitude and decreases uncertainty. These results reveal the interplay of situational variables (CONTEX and EVAL) and a personality variable (NEV) in shaping the two dimensions of stated intentions.

[Insert Figures 1 and 2 here]

## **Stage 2: Translation of Uncertain Intentions to Actual Behavior**

Following the JUMP model estimation for stated intentions, we computed the predicted value of IU (i.e., right hand side of equation 2b), and used this as an index of intention uncertainty. Because the dependent variable in stage 2 of the analysis was a count variable, we estimated a Poisson regression model. Results indicated that the overall model in equation 3 was significant ( $\chi^2_3 = 351.61, p < 0.0001$ ). Both main effects and the interaction between INTENT and IU was significant ( $p < .0001$ ).

Of central interest was the translation of stated intentions to actual behavior. Accordingly, we computed the net effect of intentions given by (see equation 3):

$$(5) \quad \partial \text{NUSE} / \partial \text{INTENT} = \tau_1 + \tau_3 \text{IU}.$$

The results indicated that when IU is small (at the 10<sup>th</sup> percentile value), the net translation of intention to actual usage is .666 ( $p < .0001$ ). However, as IU increases, the net translation of intention steadily decreases. At the 90<sup>th</sup> percentile value of IU the net translation of intention is rendered non-significant (coefficient = .206, *ns.*). Based on these estimates, this amounts to a 69% reduction in the translation of intention to behavior.

## Discussion

The results of the present experiment indicate that procedures that encourage consumers to form implementation intentions (as opposed to simple goal intentions) influence the magnitude of intentions as well as the uncertainty with which these intentions are held. In turn, the uncertainty influences the extent to which stated intentions shape actual usage behavior. These results offer insight into a uncertainty-based process underlying the operation of implementation intentions. Participants in our research were induced to form implementation intentions via the “calendar method,” in which they were given a calendar and were asked to indicate the precise dates, times, and usage situations in which they intended to use a free sample of a new product. Although such a procedure would likely affect consumption of a variety of product types, it is likely that there are multiple additional possibilities by which managers can induce implementation intention formation, and thereby increase product consumption.

The consequences of implementation intention formation may be leveraged by an advertisement that leads consumers to think about time- and place-specific details concerning when they could use a particular new product. Advertising that shows consumers precisely when and how to use a new product, and that ideally leads consumers to generate their own implementation intentions, may be particularly effective.

Although creative advertising may be used to stimulate implementation intention formation, other elements of the marketing communication mix may be even more efficacious. While consumers are typically passive recipients of advertising, the key to the behavioral effects we report is active cognitive work by consumers. Thus, marketing interventions should be aimed at facilitating consumers generating their own implementation intentions, versus having times and contexts suggested to them. For example, a salesperson in a personal selling context could

ask the consumer to describe how and when he or she would use a target product. While this would not appear to be a heavy-handed sales pitch to the consumer (after all, the consumer, and not the salesperson, would be doing the talking) our results suggest that such a strategy may account for more behavioral variance than any pitch that the salesperson could offer.

Consumer sales promotion may also be fertile ground for inducing consumers to generate implementation intentions. For example, a firm may sponsor a contest where prizes are given to consumers who write essays that explicitly must include details about when and how a product should be used. A ratcheting effect may be obtained by sending coupons to every consumer who enters the contest. Alternatively, a firm could sponsor a sweepstakes in which the entry form requires that the consumer write a few sentences describing their product implementation intentions.

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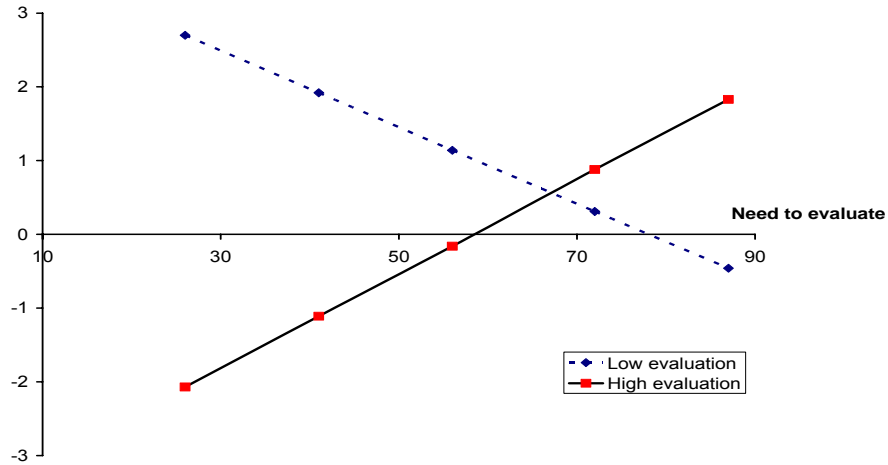
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**Figure 1. Net effect of Contextualization of Intention Magnitude**

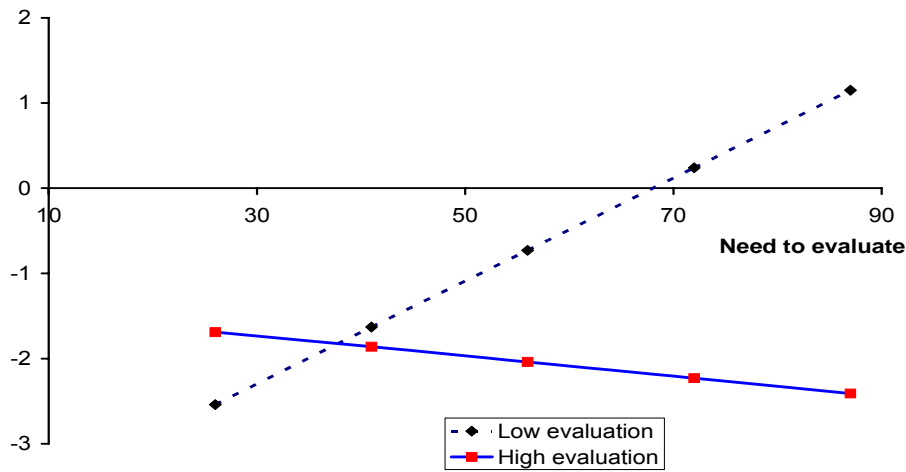
$$\frac{\partial IM}{\partial CONTEX}$$



Note: This figure depicts the impact of CONTEX on IM (given by  $\frac{\partial IM}{\partial CONTEX} = \beta_1 + \beta_4 EVAL + \beta_5 NEV + \beta_7 EVAL * NEV$ ; see equation 4a) at different levels of Need to evaluate and at high and low levels of initial product evaluation.

**Figure 2. Net Impact of Contextualization on Intention Uncertainty**

$$\frac{\partial IU}{\partial CONTEX}$$



Note: This figure depicts the impact of CONTEX on IU (given by  $\partial IU / \partial \text{CONTEX} = \gamma_1 + \gamma_4 \text{EVAL} + \gamma_5 \text{NEV} + \gamma_7 \text{EVAL} * \text{NEV}$ ; see equation 4b) at different levels of Need to evaluate and at high and low levels of initial product evaluation.

## **Session 7C (Spirit Dining Room)**

### **Self Through the Lens of the “Other”**

Effects of Mortality Salience on Ethnocentric Consumer Behavior at a Regional Level

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## Abstract

According to *terror management theory*, the salience of one's own death leads to an increased preference for one's in-group and to a devaluation of out-groups. We investigated whether this ethnocentrism effect also holds true for preferences for products that have a strong regional significance. In two German cities (Cologne and Düsseldorf) we asked 192 participants to taste and evaluate beer that was either from their hometown or from the other city. An interaction effect ( $p < .01$ ) of beer sort ("Kölsch" vs. "Altbier") and treatment (mortality salience vs. control group) provided evidence that mortality salience effects have an influence on affective reactions to regional marketing stimuli. Further results indicate that there is a much stronger priming effect of downward valuation of a foreign beer sort than of upward valuation of a beer from participants' own region.

IF TOMORROW NEVER COMES—WHAT WOULD YOU  
DRINK TONIGHT?

EFFECTS OF MORTALITY SALIENCE ON ETHNOCENTRIC  
CONSUMER BEHAVIOR AT A REGIONAL LEVEL

We live in a globalizing world in which more and more consumer goods are produced in one place and are purchased and consumed in many others. For example, many running shoes are manufactured in Southeast Asia and are purchased all around the globe. Other goods are still produced, sold, and consumed within the same region. One such product is beer. Although there are some "global players" in the beer market as well (e.g., Heineken and Budweiser), beers of smaller breweries are often consumed solely within their specific regional area. This is remarkable as one might suppose that customers' gustatory preferences are almost identical across regional bounds.

We argue that (a) the consumption of regional products (like regional beers) often serves the function of bolstering consumers' social identities and that (b) such reinforcement of regional identity can be enlarged by manipulating consumers' salience of their own deaths. Below, we provide a brief overview of terror management theory and its relation to social identity theory.

## CONCEPTUAL BACKGROUND

### Terror Management Theory

How do we react when we are reminded of the inevitability and unpredictability of our own death (e.g., news of terrorist attacks, natural disasters, wars, murders, accidents), and do such thoughts have any relevant consequences for consumer behavior? *Terror management theory* (Greenberg, Pyszczynski, & Solomon, 1986; Solomon, Greenberg, & Pyszczynski, 1991; for an overview see Greenberg, Solomon, & Pyszczynski, 1997) provides a framework that explains

individuals' strategies for coping with awareness of their own mortality (mortality salience) and describes two subsequent mechanisms: primarily, people try actively to remove these death-related thoughts from their minds using several proximal defense mechanisms (e.g., distraction, rationalism, denying vulnerability, or suppression). Consequently, the consciousness of these thoughts decreases over time while unconscious death-thought accessibility arises. This leads to two distal reactions at a second level of defense: (1) the attempt to symbolically transcend life by upholding a shared cultural worldview that buffers death-related anxieties and (2) the attempt to strengthen cognitions that one acts in accordance with these views (self-esteem).

Although terror management theory has gained a prominent place within social psychological research, its implications for consumer behavior have only recently been acknowledged. This is remarkable because terror management theory can theoretically predict several effects of mortality salience (for example, as a consequence of the events of September 11th) on consumers' reactions to marketing stimuli like products/brands, advertisements, endorsers, or cultural symbols (for an overview see Arndt, Solomon, Kasser, & Sheldon, 2004; for public reactions to the 9/11 terrorist attacks see Ochsman, 2002). First applications of terror management theory to consumer behavior were given in the field of harmful but self-esteem-enhancing consumption (Routledge, Arndt, & Goldenberg, 2004), self-regulation (Ferraro, Shiv, & Bettman, 2005), status items (Mandel & Heine, 1999), materialism (Arndt et al., 2004), and persuasion (Shehryar & Hunt, 2005).

### The Social Identity as a Terror Management Mechanism

According to social identity theory (Tajfel & Turner, 1979), humans have a desire to define themselves as members of certain social groups. As a consequence they tend to favor their in-group and to detract from members of out-groups (i.e., those that do not belong to their in-

group). A large body of research has shown that this tendency is increased if people are made aware of their own mortality (Castano, 2004; Castano, Yzerbyt, Paladino, & Sacchi, 2002; Greenberg et al., 1990; Halloran & Kashima, 2004).

In their attempts to close the gap between social identity and terror management theories, Castano and his colleagues (Castano, 2004; Castano et al., 2002; for an overview see Castano, Yzerbyt, & Paladino, 2004) showed that nationality seems to be an important criterion for defining identity and for distinguishing between in- and out-group. In one study (Castano et al., 2002), Italian students were asked, among other things, to rate their identification with Italy and their judgements of Italians and Germans. As expected, identification as well as in-group bias increased under mortality salience. These findings were interpreted twofold: first, people seem to seek consensus within their in-group to validate their cultural worldviews. From this point of view, the motive for identification with the in-group is the social verification of the "right" worldview. Second, the in-group serves as a direct mechanism to buffer death anxieties because it provides a social identity that will continue to exist after the person's death, so that identity transcends life in a symbolic manner.

This nationalistic bias occurs not only towards people. Applied to the field of consumer research, Nelson, Moore, Olivetti, and Scott (1997), for example, provided evidence that a nationalistic bias, which often occurs in the context of in-group favoritism and out-group devaluation, could also be found regarding commercial organizations. In their study, participants who had previously thought about their own deaths tended to blame a car accident more on a foreign car manufacturer than did participants in a control condition. Another nationally biased consumer reaction to mortality salience might be a tendency to buy products, brands, or other objects that support the person's cultural worldview and to avoid objects that threaten that view. In fact,



preferences for national cultural items (e.g., cars, food, travel, talk/game-show hosts, sports) seem to increase under mortality salience (Jonas, Fritsche, & Greenberg, 2005; Jonas & Fritsche, 2005).

Up to now, scholars that have examined the effects of mortality salience on preferences for symbols and material goods from consumers' in-groups in relation to out-groups have mainly focused on consumers' *national* social identity. However, nationality is only one possible category that people can use to distinguish between "us" and "them". Social identity theory has emphasized that people use different categories to build positive social identities, like gender, race, age, hobbies, or profession.

Another important part of people's social identity seems to be their own hometown or geographical *region*. For example, in Germany, people from the East perceive themselves as being different from people in the western part of the country, and value cultural symbols differently (Jonas & Fritsche, 2005). Interestingly, people's need to distance themselves from a certain out-group is often especially high if the other group is objectively quite similar or is quite close to the in-group (van Oudenhoven, Askevis-Leherpeux, Hannover, Jaarsma, & Dardenne, 2002). This can be explained by the fact that the objective similarity of an out-group threatens the distinctiveness of the in-group. Take, for example, Canadians' tendency to regard themselves as totally different from the U.S. population.

As far as social identity is mainly formed within the in-group, the *low inclusiveness* of that group supports its meaningfulness within the process of identity creation and the possibility of distinguishing one's social identity from that of the out-group (cf. Simon, Kulla, & Zobel, 1995). Following this chain of ideas, worldviews within a regional context should have an influence on individuals' cognitive structure that is at least as strong as the influence of national views. This

led us to break down the assumptions of terror management theory at a regional level and compare the influence of mortality salience on consumer behavior within two regional samples. Since many consumer brands and products (e.g., foods and beverages) are mainly marketed and consumed within a region, this new focus should contribute to a relevant extension of terror management theory towards the marketing of regional goods.

Following this line of reasoning, we investigated the evaluation of two different kinds of beer from two German cities (one beer sort from each city) that are situated quite close to each other in the Rhineland in the Western part of Germany: Cologne and Düsseldorf. We chose these two cities because they are only 25 miles apart and, viewed objectively, have an almost identical cultural background. Nevertheless, a cultural competition can be observed among the cities' inhabitants that becomes manifest in different traditions, lifestyles, and consumption patterns. Not surprisingly, the inhabitants of these cities recognize hardly any similarity between them, and in each city innumerable jokes are made about the stupidity of the inhabitants of the other city.

To test whether the inhabitants of these two cities prefer a beer from their own hometown and whether such a preference is enlarged under conditions of high mortality salience, we had participants from both cities taste and evaluate a beer that was either from their hometown or from the other city. For half of the participants in both cities the beer tasting took place under conditions of high mortality salience and for the other half of the participants the beer tasting took place in a control condition.

## METHOD

We analyzed the taste evaluations of people of either a beer sort of their own city or a beer sort of a different—worldview-threatening—city under mortality salience and control conditions.

Additionally, we checked for the moderating role of region. Following previous mortality salience studies, we checked whether mood states could account for the effects of mortality salience on our dependent variables and so serve as an alternative explanation for our study results.

### Design and Participants

We used a 2 (city) x 2 (mortality salience vs. control condition) x 2 (own beer vs. foreign beer) between-subjects design with mortality salience and beer sort randomly manipulated and two fixed city samples (Düsseldorf and Cologne). The dependent variable was people's evaluation of the beer's taste compared to that of an ideal beer.

Owing to the labs' locations, we used different recruitment procedures in the two cities. In Cologne, where the lab was in a central city location, participants were recruited on a shopping street. In Düsseldorf, where the lab was in a suburb, we recruited participants from members of a club for popular sports. In both cities, participants were asked whether they were willing to spend 20 minutes to participate in a study on beer tasting. As an incentive for their participation they were informed that they could enter a sweepstake in which they could win up to three crates of beer.

Former research showed that in-group bias is positively related to the degree of in-group identification. Thus, participants' identification with the town they lived in was one prerequisite of our study. We asked all participants to indicate the degree to which they identified themselves with the city they lived in (i.e., Cologne or Düsseldorf) on a five-point scale. Only those participants who scored at least 3 on that scale were included in the experiment. A total of 192 inhabitants from the cities of Cologne and Düsseldorf (96 from each city) participated in our study.

Seventy-two participants were female and 120 were male. The unbalanced number of men and women reflects the quantitative proportion between beer-drinking men and women in the German population. The mean age of participants was 43.8 years (ranging from 19 to 88). Neither participants' gender nor age influenced the results of the present study.

### Experimental Procedure

To prevent participants from being suspicious about the connection between our priming procedure and the beer tasting, we separated the first part of our study from the second by labeling the first part "a study about handling emotions in modern society" and conducted it as a paper and pencil questionnaire that participants had to fill out on their own, without the experimenter present, whereas the second part was labeled "beer tasting" and was conducted as an oral interview. Additionally, we claimed that the first part was a study conducted by another university department, told participants that the study was completely independent of the beer tasting, and used different experimenters for each part. After having finished the first part of our study, participants were asked to insert the questionnaire in an envelope and to put the envelope into a sealed cardboard box. We used this procedure to ensure that participants believed that they were participating in two different studies.

The first questionnaire started with 15 filler items followed by the standard mortality salience/control induction in which participants in the mortality salience condition were asked to write two short essays about their (1) thoughts and (2) feelings about their own deaths. In the control condition participants were asked to write two short essays about their (1) thoughts and (2) feelings when they are watching television (see Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989). After that priming procedure, we measured participants' moods by having them fill out a German version of the PANAS scale (Krohne, Egloff, Kohlmann, &

Tausch, 1996; for the original version see Watson, Clark, & Tellegen, 1988). This scale was used for distraction as well as to measure the influence of mortality salience on mood, and closed the first questionnaire.

After the participants had finished, the second experimenter entered the room, offered them a bottle of beer and a glass, and informed them about the beer's origin and sort but not the brand (we wanted to avoid any influence of brand on the dependent measure). The experimenter then asked the participants to pour, try, and rate the beer on an evaluation scale on which the tasted beer was compared with an ideal beer (i.e., the "best beer conceivable") on a scale ranging from 0 (*worst*) to 100 (*perfect*). As Friedman and Friedman (1997) showed, such a compared-to-ideal scale reduces possible ceiling effects that otherwise might have occurred when the participants rated the kind of beer that they were used to drinking regularly. After having evaluated the beer's taste, the participants filled out a number of items about their beer-drinking behavior which served as filler items following two items that checked for the consciousness and strength of thoughts about death in the second part of the study. These items were adapted from a previous study (van den Bos, Poortvliet, Maas, Miedema, & van den Ham, 2005) and were used there as a manipulation check. The questionnaire closed with the socio-demographic section. The participants were debriefed by mail after the experiment had been completed.

## RESULTS

### Manipulation Check

By averaging the two items ( $\alpha = .95$ ) used in the second part of the experiment to measure whether and how strongly participants thought about death, we formed a new death-thought scale (ranging from 1 [*low death thoughts*] to 5 [*high death thoughts*]). We then conducted a 2 x 2 x 2 ANOVA with the average score as independent variable. We expected a main effect of the

priming. Surprisingly, there were neither significant main effects nor interaction effects on the mortality salience scale (all  $p > .25$ ), indicating that, compared to participants in the control group ( $M = 1.02$ ,  $SD = 0.21$ ), these participants did not report having thought significantly more about death after mortality salience treatment ( $M = 1.07$ ,  $SD = 0.42$ ). This indicates that the mortality salience priming only worked on a non-conscious level, because—as further results show—it can be assumed that the mortality salience priming worked.

To determine whether the participants had thought about their personal deaths during the priming procedure, we inspected the short essays of the first questionnaire, and found that all but one participant in the mortality salience condition had written about that topic and so must actually have thought about it. None of the participants in the control condition wrote about the topic.

#### PANAS

We used the PANAS scale to determine whether our priming conditions influenced participants' moods. In line with previous studies, no such effects were identified: two analyses of variance on participants' overall positive (PA) and negative (PN) scale values revealed no significant results,  $F_{PA}(1, 178) = 2.23$ ,  $p = .14$  and  $F_{NA}(1, 178) = 0.31$ ;  $p = .58$ .

#### Evaluation of Beer Tastes

To test the main hypothesis of the present study, we conducted a three-way ANOVA with city of residence (i.e., Cologne vs. Düsseldorf), priming (mortality salience condition vs. control condition), and beer's origin (own beer vs. foreign beer) as factors and the tasted beer's evaluation as the dependent variable (when we also included participants' gender as a factor, no significant main effects of gender or significant interaction effects with gender could be found).

In line with our expectations, participants in both cities rated their own beer as tasting better than the beer of the other city. Across experimental conditions, participants rated a beer of their own hometown with a value of 66.09 on the 100-point scale but a beer from the other city with a value of only 50.50. This main effect was highly significant,  $F(1, 184) = 25.46, p < .001$ .

The main hypothesis of the present study was that this difference ought to be higher in the mortality salience condition than in the control condition. As Figure 1 shows, this hypothesis was confirmed. A significant two-way interaction between priming and beer sort,  $F(1, 184) = 7.85, p < .01$ , implies a different priming effect on the evaluation of a beer sort of the participants' own or the other city. In the control condition no significant effect of the kind of beer emerged, as the difference between ratings was only 6.9 points. Participants rated a beer from their own hometown with an average of 63.50 points and a beer from the other city with an average of 56.60 points,  $F(1, 184) = 2.51, p = .11$ . In the mortality salience condition, however, a substantial effect of the kind of beer emerged, as the difference between ratings was 24.11 points.

Participants rated a beer from their own hometown with an average of 68.69 points and a beer from the other city with an average of only 44.58 points,  $F(1, 184) = 30.79, p < .001$ .

Further analysis showed that this difference in ratings was due mainly to a devaluation of the foreign beer rather than to an upward evaluation of participants' own beer. Foreign beer was rated significantly worse in the mortality salience condition than in the control condition:

$M_{\text{mortality salience}} = 44.58$  versus  $M_{\text{control}} = 56.60, F(1, 184) = 7.66, p < .01$ . However, participants in the mortality salience condition did not rate their own beer better than did participants in the control condition:  $M_{\text{mortality salience}} = 68.69$  versus  $M_{\text{control}} = 63.50, F(1, 184) = 1.43, p = .23$ .

## DISCUSSION

We investigated whether consumers' preferences for regional products are influenced by the degree to which they are aware of their own mortality. We found that a significant difference between the evaluations of a beer from the participants' own town of residence and a beer from the other town emerged in the mortality salience condition but not in the control condition.

The findings of the present study are in line with those of previous studies that also dealt with the influence of mortality salience on ethnocentric consumer preferences (e.g. Jonas et al., 2005). In these studies, however, the dependent variable was the attitude towards products and economic symbols from participants' own or a foreign country, and this was measured using a conventional paper and pencil procedure. Contrary to this, in the present study, participants were not asked to indicate their attitudes towards different kinds of beer but were given the opportunity to taste one kind of beer, reflect on their gustatory experience while drinking it, and then indicate the degree to which they liked that beer or not. Hence, our findings show that the effects of mortality salience on consumers' preferences are not restricted to attitudes but also extend to gustatory experiences. We argue that such a dependent variable is less cognitively controlled than attitudes that are measured in a conventional manner. In this regard, it is important to note that no significant differences in evaluations appeared in the control condition as a result of using such a procedure.

Our study extends previous research in another important way. Previously, research on the effects of mortality salience on ethnocentric attitudes, both in general and related to consumer behavior, focused on the national level. It is important to realize, however, that social identity theory is not only a theory about nationalism, but that people can define themselves as members of a large number of different social groups. We argue that this is especially true in the realm of



consumer behavior. People buy not only as "Americans" or "Germans" but also as "New Yorkers", "women", or fans of the "Chicago Bulls". Thus, scholars in consumer research may broaden their focus to many more social identities.

Maheswaran and Agrawal (2004) recently pointed out that more research is needed that aims to disentangle the consequences of a low versus a high degree of mortality salience on consumers' cognitions and motivations. They argue that at least a part of the mortality salience effects identified so far could be due to a kind of defense motivation that causes consumers to stick to their habitual consumption patterns and leads them to avoid any information or experience that might not be consistent with their dominant attitudes or behaviors. Our results are very much in line with such reasoning. The participants in the control condition were much more open to admitting that a beer from the other city does not taste so bad than were the participants in the mortality salience condition. Interestingly, this difference in the evaluation of the two kinds of beer was due mainly to a devaluation of the foreign beer rather than to an upward evaluation of the participants' own beer. More research is needed to establish whether this is a stable result. Nevertheless, we argue that this result is in line with the theoretical argument of Maheswaran and Agrawal (2004), as one efficient way to defend one's own consumption pattern is to devalue possible alternatives.

To summarize, our research adds to the emerging line of research that relates terror management theory to consumer behavior. As our results show, consumers' preferences for regional products are significantly influenced by the degree to which they are aware of their own mortality.

Although our world is globalizing, threats to our cultural worldviews lead us to think and act locally.

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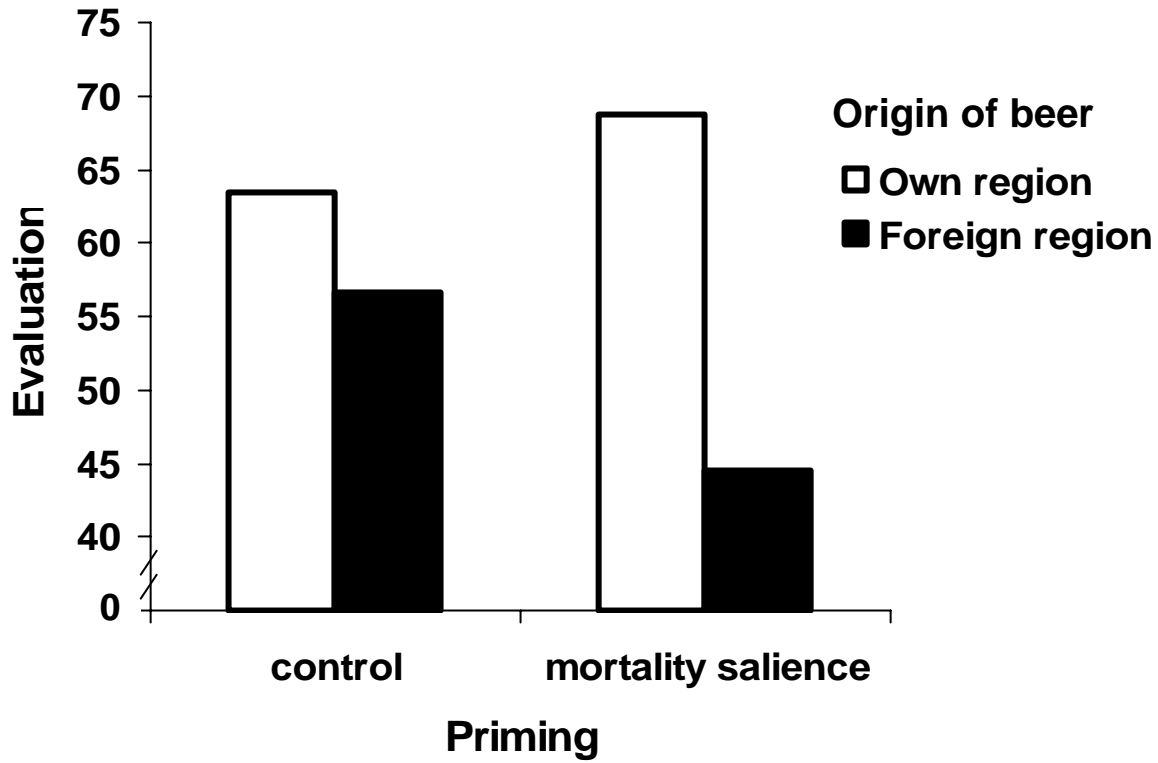
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Figure 1

*Influence of experimental condition on the evaluation of a foreign- and own-regional beer sort.*

*Evaluation scales ranged from 0 to 100.*



The Effect of Acculturation on US Hispanics' Socialization and Consumer Behavior  
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## **Abstract**

Consumer acculturation is the process by which immigrants adapt to the market in a host country. This paper develops integrative propositions about micro-cultures and consumer acculturation, exploring the relationships between acculturation dimensions and consumers' socialization and behavior. Building on acculturation and consumer socialization theories, we propose that a combination of individual and environmental factors affects the nature and intensity of acculturation. Further, acculturation determines consumers' selection of socialization agents, as well as immigrants' shopping behavior, style, preferences and brand loyalty.

# **THE EFFECT OF ACCULTURATION ON US HISPANICS' SOCIALIZATION AND CONSUMER BEHAVIOR**

## **INTRODUCTION**

Hispanics are the largest and fastest growing US minority group, accounting for nearly \$700 billion in purchasing power. Their tendency to acculturate rather than completely assimilate into the new culture (Neveer, 2004), makes them an ideal micro-culture for studying acculturation's impact on consumer behavior. While immigrants bring with them cultural characteristics and behaviors from their native countries, adapting to a new culture often changes beliefs, attitudes, values, and consumption (Berry et al., 1992; Herskovits, 1936; O'Guinn et al., 1987). Thus, consumer acculturation becomes a subset of the process of cultural-social acculturation and might be influenced by this process (O'Guinn et al., 1986; Faber, O'Guinn & McCarty, 1987).

The literature on this issue is scarce and lacks integration (Ogden, Ogden & Schau, 2004). This is especially evident in a lack of research on aspects related to consumers' learning process by their interactions with socialization agents throughout life transitions (Bristol & Mangeburg, 2005). Our paper integrates various theoretical frameworks and focuses on Hispanics' acculturation to the US. First, it develops propositions linking Hispanics' micro-cultures and consumer acculturation, which integrate acculturation, socialization, and intergenerational influence (IGI). Second, it explores the impact of acculturation on immigrants' re-socialization and the resulting consumption behavior. Third, it identifies the primary factors affecting acculturation, applies a multi-dimensional model of acculturation, and examines the relationship between acculturation and consumption at the micro-cultures level (O'Guinn & Faber, 1985; O'Guinn et al., 1986; Valencia, 1989). Fourth, based on a comparison between Hispanics and Latin Americans, it explores how acculturation has changed US Hispanic consumers.

## **THEORETICAL BACKGROUND**

Scholars acknowledge that consumption is culturally-bound. Studies have focused on immigrants' consumption in new cultural environments as a function of ethnic identity (Laroche, Kim & Tomiuk, 1998; Xu, Shim et al., 2004), assimilation (D'Rozario & Douglas, 1999; Walldorf & Reilly, 1983), or acculturation (Ownbey & Horridge, 1997). This research attempted to refute the dominant assumption that consumption was homogeneous within subcultures (Deshpande, Hoyer & Donthu, 1986); established that cultural orientation directs the behavior of micro-culture consumers; showed that individuals within a micro-culture differ on acculturation and ethnic identity; and found that adaptation of immigrants to the host culture is a rather complex phenomenon.

### **Acculturation**

Acculturation refers to social/psychological changes resulting from contacts between individuals from different cultures during which immigrants acquire attitudes, behaviors, and cultural identity of the host culture and mesh them with those of the original one (Cuéllar, Arnold & Maldonado, 1995; O'Guinn, Imperia & MacAdams, 1987). While acculturation is an interactive, bi-directional flow in which host and immigrant cultures influence each other (Herskovits, 1936; Berry et al., 1992), we focus on an acculturating micro-culture and changes in it. Hence, while acknowledging that host cultures often experience changes, we portray a uni-directional influence from the host to the micro-culture (Laroche et al., 1997; O'Guinn, Lee & Faber, 1986). Acculturating individuals vary in terms of the pace of adaptation to the new culture (Berry, 1997; Berry & Sam, 1996; Liu, 2000), determined at the external- environmental- and individual- psychological-levels (Jun, Ball & Gentry, 1993).

Acculturation theories evolve around the extent of immigrants' adaptation to host cultures attitudinally (ethnic identity) or behaviorally (language, media, and ethnic food). Both uni- (Burnam et al., 1987; Cuéllar, Harris & Jaso, 1980; Salgado de Snyder, 1987) and multi-dimensional (Berry 1980, 1997; Gordon, 1964; Johnson, 1963; Laroche et al., 1997; D'Rozario & Douglas, 1999) frameworks of acculturation have been used. While other models exist (D'Rozario and Douglas, 1999; Laroche et al.,

1997), we use Berry's framework (1980). It recognizes two acculturation dimensions: maintenance of the original cultural identity and maintenance of relations with other groups, dichotomized to four acculturation strategies. Assimilation occurs when individuals value relations with the new culture and are less concerned with cultural maintenance. Separation occurs when individuals value cultural maintenance but avoid interaction with the new culture. Integration occurs when individuals value both cultural maintenance and interaction with the new culture. Finally, marginalization occurs when individuals value neither cultural maintenance nor relations with the new culture. This structure is the foundation of Cuéllar et al.'s Acculturation rating scale for Mexican Americans (1995), which incorporates Berry's four modes of acculturation, measuring behavioral and, to some extent, affective aspects of acculturation. By doing so, this framework provides a more comprehensive assessment of acculturation covering language use and preference, ethnic identity and classification, cultural heritage, ethnic behaviors, and ethnic interaction. The model further breaks down each of the four acculturation modes into subtypes, thus covers a wider spectrum of acculturation modes, which contributes to a an accurate and in-depth classification of consumers.

*Acculturation Antecedents.* Researchers have acknowledged that the process of acculturation is affected by contextual factors related to acculturating individuals and their environment (Cabassa, 2003). Thus, some looked into the degree of voluntariness in which immigrants entered into the new culture, others looked into the affective responses, feelings of well-being and satisfaction during cross-cultural transitions, and some examined this process from a socio-cultural adaptation perspective. To fully understand the acculturation process and its outcomes, it is imperative to identify the key factors that affect this process. The main factors affecting intercultural adaptation can be classified into environmental, personal/individual and personal/demographic. These factors influence individuals' ability to fit into the new culture. While this classification factors have been compiled from those identified in the literature, it is not exhaustive; however, it provides an effective organizational framework for this study's purposes. Further, the factors presented here are intended to be used as a

platform for studying the acculturation process and consumer behavior outcomes of a particular acculturating group. Incorporating these contextual factors can contribute to a comprehensive investigation and a deeper understanding of how micro-cultures adapt to a new cultural environment.

As the relationship between the social setting and the acculturation process is under-researched, this paper explores it by examining components within the immigrants' environment. Thus, at the environmental level, quality and intensity of intercultural contact, interethnic interactions, and ethnic distribution/density affect the acculturation process (Mendoza, 1989; Ward & Kennedy, 1993; Cuéllar & Arnold, 1988). While researchers viewed family involvement and support as an outcome of acculturation (Brooks, Stuewig & Lecroy, 1998; Barrett, Joe & Simpson, 1991; Samaniego & Gonzales, 1999), this paper suggests a different perspective by examining familism and family coherence as a factor that may inhibit or expedite acculturation.

At the personal/individual level, researchers viewed cultural distance/similarity between the culture of origin and the culture of settlement (Searle & Ward, 1990), resistance to or acceptance of change (Valdés, 2002), and locus of control (Dyal, 1984; Kuo & Tsai, 1986) as determinants of acculturation. Researchers have agreed that ethnic identity affects acculturation, have primarily focused on the effect of acculturation on ethnic identity, and have examined how identity was modified over time (Ward, 2001). This paper explores the effect of ethnic identity on the nature of acculturation. At the personal/demographic level, variables such as age, gender, socio-economic status (income, education, or profession), length of residence or generation are key factors affecting the quality and pace of acculturation (Ward, 2001).

In sum, the importance of acculturation and ethnicity has been stressed in scholarly work on micro-cultures and consumer behavior and previous studies have examined the relationship between immigrants' acculturation and consumption patterns. However, no systematic attempts have been made to explore consumer acculturation from a more holistic perspective that encompasses the multiple components involved in this phenomenon.

## **Consumer Acculturation or Re-Socialization: Literature Review**

Consumer acculturation focuses on cultural adaptation in a consumption context and is viewed as a special case of consumer re-socialization (Liu, 2000). It is defined as adaptation of individuals from one country to the consumer culture in another (Peñaloza, 1994). Research has examined how immigrants differ in terms of information use during decision-making (D’Rozario & Douglas, 1999; Kang & Kim, 1998), learning (Peñaloza, 1994), shopping orientation (Ownbey & Horridge, 1997; Shim & Chen, 1996), and consumption patterns (Wallendorf & Reilly, 1983). These studies can be divided into three streams: acculturation/assimilation (Laroche et al., 1997), consumer socialization/acculturation (Peñaloza, 1994), and ethnic identity affiliation (Deshpande, Hoyer & Donthu, 1986; Kim, Laroche & Joy, 1990; Laroche et al., 1998; Xu et al., 2004).

Consumer behaviors are transferred by acculturation agents through modeling, reinforcement, and social interaction (Moschis, 1987). Peñaloza (1989, 1994) viewed consumption as affected by individual factors (consumption values, language, and affiliation intensity) and information sources from the original and the host culture. Consumer acculturation is influenced by competing socialization agents from the two cultures, whose impact on consumption reflects the weight each bears. She saw consumer acculturation along phases from the physical move, to the use of the original cultural system as a bridge in the acculturation process, to final adaptation. She concluded that acculturation results in acceptance/rejection of the host culture and the maintenance/rejection of the original one.

D’Rozario and Douglas (1999) investigated the effect of acculturation on information search and distinguished between cultural, identificational, and structural assimilation. Cultural assimilation refers to acculturation/socialization through which individuals acquire knowledge about the macro-culture. Identificational assimilation is a process by which individuals define themselves and their relation with the macro-culture based on imitative information acquisition. Structural assimilation is the process by which individuals are brought into a physical contact with the macro-culture. Their activities and social interactions take place in the macro- as opposed to the micro-culture. The study

revealed acculturation-based differences in the use of pre-purchase information sources. Cultural assimilation individuals sought information from external sources, identificational assimilation ones from the media and advertising, and the less structurally assimilated ones from family and micro- or macro-culture friends.

A third stream of research relies on the extent to which immigrants are inclined to ethnic identification/affiliation/loyalty, which impacts their consumption (Kim, Laroche & Joy, 1990; Ogden, Ogden & Schau, 2004; Padilla, 1980; Xu et al., 2004). For example, Deshpande, Hoyer & Donthu (1986) found differences among strong and weak Hispanic identifiers in terms of their Spanish media use, advertising attitudes, and brand loyalty. Kim, Laroche, and Joy (1990) focused on English-French Canadian ethnicity and reported consumption differences for some products (see Laroche et al., 1998, Stayman and Deshpande, 1989, Xu et al., 2004, and Zmud, 1992).

In sum, our review of the mixed results of previous studies, which used different models, reveals a complex picture. Yet, a consensus exists that cultural change brought about by the interaction of immigrants with the host culture affects consumer behavior. Most studies dealt with the effect of acculturation or ethnic identification on consumer behavior, but some have taken an integrative approach, considering the process by which consumption learning occurs.

### **Intergenerational Influence (IGI)**

IGI, a subset of consumer socialization, refers to within-family transmission of market information and preferences across generations (Heckler et al., 1989; Childers & Rao, 1992; Moore et al., 2002; Shah & Mittal, 1997). Most IGI research assumed a one-way flow of influence from the older to the younger generation (Heckler, Childers & Arunchalam, 1989; Moore & Lutz, 1988; Moschis, 1988; Moschis & Churchill, 1978). Though reversed IGI was acknowledge in past studies, all where intra-cultural (Beatty & Talpade, 1994; Foxman, Tansuhaj & Ekstorm, 1989; Moschis & Mitchell, 1986).

Unidirectional IGI may not hold in the context of consumer re-socialization, which is likely to demonstrate a reversed flow from children with greater product knowledge to parents (Ekstorm et al., 1987; Moschis, 1988; Moschis & Mitchell, 1986). Studies of children influence on parents' consumption assessed how parents complied with children's requests and were conducted mostly in the US (Atkin, 1978; Foxman & Tansuhaj, 1988). Rose (1999), however, argued that socialization is a cultural process in which parents facilitate the learning/adaptation of children. He found that Japanese and US mothers differed on consumer-related developmental timetables and control over children's consumption. Child's influence and consumption autonomy varied and US children demonstrated greater autonomy and lower consumption influence than Japanese ones. These findings highlight the importance of cross-cultural research.

In sum, our review reveals mixed results across outcomes. Furthermore, it has not been explored cross-culturally although it is relevant to consumer acculturation. Bilingual Hispanic children affect their parents' acculturation by serving as their bridge to the new culture, especially when parents' English is limited. Through their interactions with non-Hispanics, they are exposed to new products, which they introduce to their families. Integrating this perspective with the socialization and acculturation frameworks, our propositions explore children's role in their parents' socialization process. As the cross-cultural perspective grants children a central role in their parents' acculturation, we include them as within-culture socialization agents.

## **PROPOSITIONS**

The propositions, summarized as a model in Figure 1, arise from our review (discussed briefly before each). The model suggests that a set of environmental- and individual-based factors affects the level of acculturation. In turn, consumer acculturation and socialization agents determine consumer shopping behavior, preferences, and interaction with brands (i.e., brand loyalty). Additionally, the level of acculturation affects consumers' selection of socialization agents, who help them navigate in the



new marketplace. The model should be tested using Hispanics residing in the US and, later, compare them with Latin Americans (country of origin).

### **Factors Affecting Acculturation**

Although ethnic identification is not equivalent to acculturation, its measurement enables researchers to indirectly assess the degree of acculturation (Kim, Laroche & Joy, 1990). Researchers agree that ethnic identity is related to acculturation and argued that one of the fundamental changes during the process of acculturation is related to cultural identification (Ward, 2001). However, no systematic attempts have been made to explore the effect of the strength of ethnic identity on the level of acculturation. Thus, we propose:

**P1:** The stronger the ethnic identity, the lower the level of acculturation would be.

Researchers generally viewed acculturation as a factor affecting the sense of familism among acculturating individuals, so that higher levels of acculturation were associated with less family involvement among Mexican-Americans (Brooks, Stuewig & Lecroy, 1998), less family support (Barrett, Joe, & Simpson, 1991), and increased family conflict (Samaniego & Gonzales, 1999). However, researchers often assert that the cultural importance of the family and its coherence cause Hispanics to remain culturally distinct (Dominguez & Rose, 2004). Thus:

**P2:** The stronger the sense of familism, the lower the level of acculturation.

### **The Socialization Process**

Acculturation should affect consumers' selection of socialization agents. Less acculturated individuals should turn to within-culture agents (family and within-culture peers/media) because the language barrier and strong cultural orientation constraint their ability to communicate outside their culture (D'Rozario & Douglas, 1999). In addition, since Hispanics' cultural orientation is inclined toward collectivism and high context (Hofstede, 1991; Valle & Mandel, 2003) and decision-making occurs within a group guided by trust and intuition, less acculturated Hispanics should perceive in-culture agents as more trustworthy than those within the host culture. In contrast, more acculturated

individuals, familiar with the host culture, can navigate the marketplace and should rely on themselves or on individuals from the host-culture (D’Rozario & Douglas, 1999). In sum:

**P3:** Acculturation affects Hispanics’ selection of socialization agents such that:

a] The higher the level of acculturation, the less likely the reliance on family and in-culture mass media for information.

b] The lower the level of acculturation, the more likely the reliance on within-culture consumer socialization agents.

The reversed IGI and acculturation literature show that children often serve as a bridge between their less acculturated parents and the new marketplace (Valdés, 2002). Accordingly, children should have a limited influence on parents’ purchase decisions when parents are acculturated. Similarly, less acculturated parents are expected to turn to their children for advice.

**P4:** The lower the parents’ acculturation, the more likely their reliance on children for product information and consumption-related advice.

### **Hispanics’ Consumer Behavior**

Strong Hispanic identifiers are more brand loyal than weak ones. Since recent immigrants are less familiar with the new consumption environment they should perceive brand switching as risky.

Thus, they are expected to stay loyal to familiar brands. Additionally, acculturation affects Hispanics’ shopping style for some products. In sum:

**P5:** Acculturation affects the degree of brand loyalty among Hispanic consumers: The higher the level of acculturation, the weaker the brand loyalty.

**P6:** Acculturation affects Hispanics’ shopping style such that the higher the level of acculturation the more similar the style to that of host culture consumers.

**P7:** Acculturation affects store selection such that:

a] The higher the level of acculturation, the more frequent the visits to “US” stores/shopping centers.

b] The lower the level of acculturation, the more frequent the visits to ethnic, small neighborhood-oriented shops (*Bodegas*).

**P8:** Acculturation affects the types of products consumed such that:

- a] Acculturated consumers are more likely to purchase products identified as mainstream/”US.”
- b] Less acculturated consumers are more likely to purchase ethnic-laden products.

### **A Comparison with Latin American Consumers**

P9 addresses the extent of culture and consumption changes immigrant Hispanics have undergone and Levitt’s argument (1983) that consumers are converging. After overcoming the difficulties posed by a new culture, acculturated Hispanics should resemble Anglos and should share the same consumption, needs, values and behaviors with global consumers. Thus:

**P9:** The consumer behavior of highly acculturated Hispanics will resemble that of US and Latin American consumers.

a] Patterns of brand loyalty among highly acculturated Hispanics will resemble those of US and Latin American consumers.

b] Patterns of consumer socialization agents’ selection of highly acculturated Hispanics will resemble those of US and Latin American consumers.

### **SUMMARY**

The changing ethnic composition in many countries poses a challenge with respect to understanding these emerging segments. The acculturation process is important for studying this phenomenon. This paper developed propositions that might inspire further research. In sum, acculturation affects consumer behavior through a re-socialization process and a micro-culture route. Individuals at different acculturation levels turn to different socialization agents and that level of acculturation generates differing shopping orientations and behaviors. Future research should realize that individuals differ in their level and nature of adaptation to new cultures. There is a need to further elaborate the multi-dimensional acculturation construct to provide a more accurate, realistic range for acculturation. In addition, research should integrate acculturation / assimilation with ethnic identification as their component. Second, researchers can study consumer acculturation from an integrative approach that involves individual and environmental factors that affect this process.

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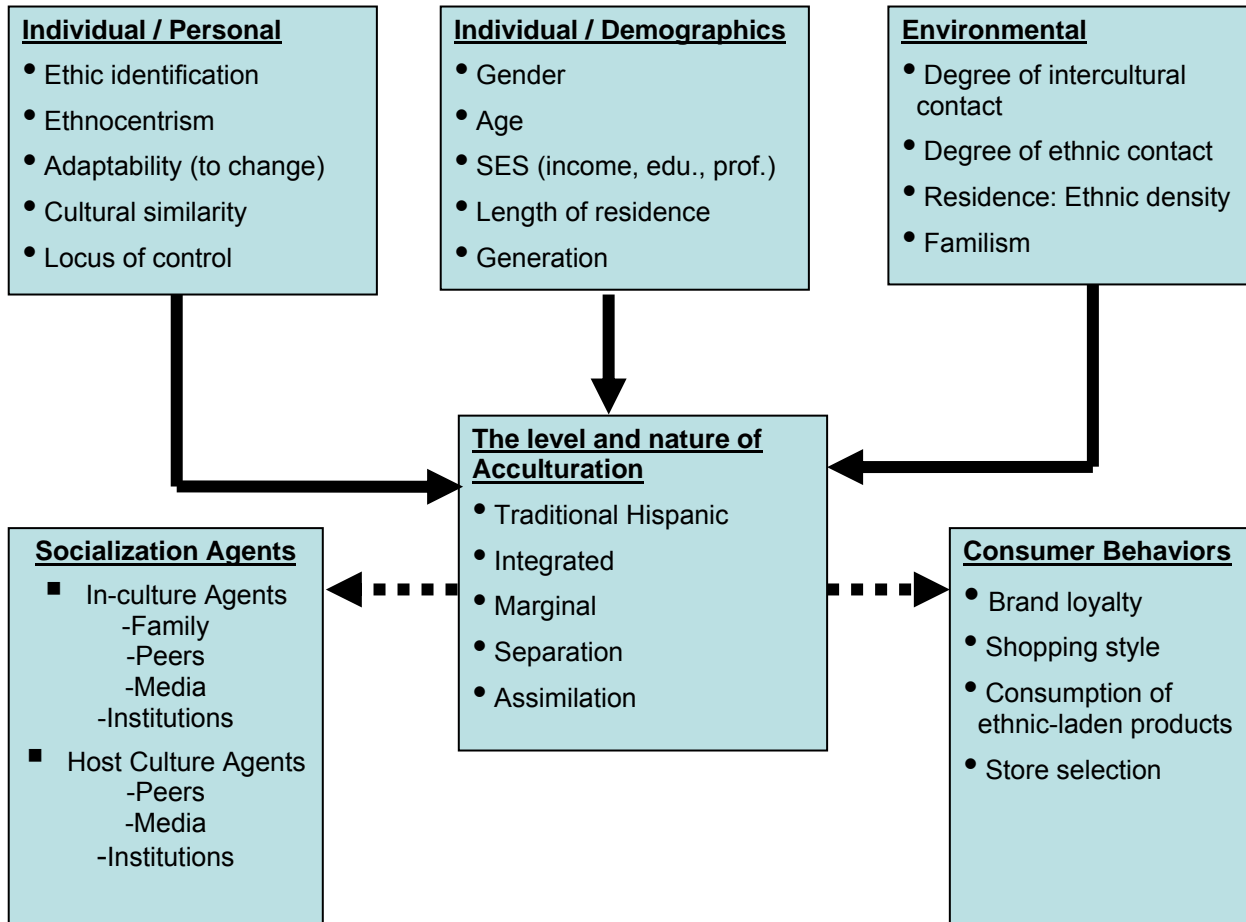
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Figure 1

*A Proposed Model for Hispanics' Acculturation, Socialization and Consumer Behavior*



You Can be Like Me But I'm Nothing Like You: Self-other Asymmetry in the Construction of Uniqueness

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YOU CAN BE LIKE ME BUT I'M NOTHING LIKE YOU:  
**Self – other asymmetry in the construction of uniqueness**

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## Abstract

In this research, we explore motivational bases for social projection based on the reference point for comparison. Findings from two empirical studies demonstrate that consumers' need for uniqueness (CNFU) moderates the projection of attitudes based on the point of reference of a comparison (self vs. other). While low CNFU consumers project irrespective of the reference point, high CNFU consumers only engage in projection where the self serves as the point of comparison. These findings are explained in terms of perceived threats to identity resulting from the reference point of the comparison.

## YOU CAN BE LIKE ME BUT I'M NOTHING LIKE YOU: SELF – OTHER ASYMMETRY IN THE CONSTRUCTION OF UNIQUENESS

Consumers often face decisions that involve predicting the attitudes of others. In addition to estimating others' preferences when gift-giving or buying on behalf of an organization or household, consumers need to predict others' preferences when making purchases for themselves (Hoch 1988). For example, consumers estimate the opinions of others to arrive at standards that they chose to comply with (e.g., refraining from purchasing an item that one predicts will be hated by others in order to conform to the group) or ignore (e.g., selecting that same item in order to stand out from the crowd). The fact that one does not always have access to wish-lists, consumer surveys, purchasing guidelines, or friends for accompaniment on shopping trips means that individuals need to find other means to predict these guidelines for their own consumer behavior.

A starting point for generating such estimates is to project own attitudes to those of others. Social projection describes the process by which individuals use what they know about themselves to infer unknown characteristics of others (e.g., Ross, Green, and House 1977). These estimates are shown to vary based on the point of reference (Srull and Gaelick 1983; Tversky 1977). Individuals have a tendency to see themselves as more similar to others in situations where the self acts as the reference point (i.e., "You can be like me") compared to instances in which an other acts as the standard for comparison (i.e., "I'm nothing like you"). Mussweiler (2001) explains this self-other asymmetry with the differences in accessible information brought on by the comparison; while the self as a reference point increases the accessibility of information indicating similarity to others, an other as a reference point makes dissimilar information more accessible (Mussweiler 2001; Tversky 1977). Similarly, extant research on social projection in the consumer domain focuses on predictions based on

one's level of perceived similarity to others (Ames and Iyengar 2005) including the accuracy of social predictions (Davis, Hoch, and Ragsdale 1986; Hoch 1988). In contrast, we explore the conditions in which motivation impacts projection.

The present study considers self-other asymmetry to investigate possible motivational bases for the projection of attitudes towards consumer products. By introducing the role of consumers' inherent motivation for uniqueness (Tian, Bearden, and Hunter 2001) we shed light on the process underlying motivated social projection. Specifically, since need for uniqueness moderates the level of projection when an other serves as the reference point, we find evidence for an ego-defensive explanation of social comparison.

The paper proceeds with brief reviews of work on social projection, including the impact of reference point, as well as need for uniqueness. The results of two studies investigating the impact of point of reference on confirmations of uniqueness are presented and implications are discussed.

## **THEORETICAL BACKGROUND**

When individuals do not have information as to how others think, feel, or behave, they frequently rely on their own thoughts, attitudes, and behaviors to predict those of others through the process of projection (Mussweiler 2003). These estimates, however, are not always accurate. Projection can lead to the overestimation of commonality, the false consensus effect (Ross, Green, and House 1977), or the underestimation of similarity, the false uniqueness effect (Kernis 1984). Extant social projection research demonstrates that the point-of-reference for making social projections can determine whether projection tends towards false consensus or false uniqueness (Mussweiler 2003; Ross et al. 1977). Specifically, individuals tend to see themselves as more similar to others when they consider themselves as the reference point (i.e., "how similar

is the average person to you?") and more different from others where an other serves as the reference point (i.e., "how similar are you to the average person?") (Srull and Gaelick 1983; Tversky 1977).

Mussweiler (2001) attributes the differential impact of reference point to the type of information that is made accessible during the comparison process. According to Mussweiler's selective accessibility model, an initial hypothesis is generated based on initial perceptions of similarity to others. Mussweiler (2003) suggests that when the self acts as a reference point, a similarity hypothesis is likely to be generated as individuals focus their attention on others and, due to lack of extensive knowledge about others, generate few characteristics that they themselves do not possess (Srull and Gaelick 1983). Testing this hypothesis increases the accessibility of information indicating similarity to others and yields assimilation to the comparison reference. Where an other serves as a reference point, the model posits that individuals test the hypothesis that they are different from others since they have more information about the self that indicates uniqueness (Srull and Gaelick 1983). Testing of this hypothesis increases the salience of dissimilar information and results in contrast from the reference point.

Although much research demonstrates the cognitive underpinnings of self-other asymmetry, little research provides evidence for the motivational process underlying this effect.

Approaching self-other asymmetry from a self-deception perspective, Hoorens (1995) finds that individuals are more likely to exhibit unrealistic optimism regarding the possession of positive traits and illusory superiority pertaining to the occurrence of positive future events when an other (as opposed to the self) serves as a reference point for social comparison.

Codol (1987) argues that such biases are more likely to occur when an other serves as the

reference point; whereas considering the self as the point of reference for comparison acts to affirm self-perceptions, comparing oneself to an other threatens an individual's unique identity. Snyder and Fromkin (1977) find evidence of similar threats based on perceptions of similarity for individuals possessing need for uniqueness, a trait-like tendency to self-differentiate.

The present research extends the self-other asymmetry effect to the consumer domain and explores potential motivational processes underlying projection. We include individual's need for uniqueness as a moderator of the process of social projection. Based on the preceding arguments, we propose that when a consumer acts as the reference point by predicting the adoption level before stating own attitude towards a new product, a threat to identity is posed. In this condition, we predict that individuals with a high motivation for uniqueness will fail to project in an effort to differentiate themselves from others in response to this threat. This effect is not predicted for individuals with low uniqueness motivation as conformity is not seen as a compromise to identity. On the other hand, we posit that when a consumer acts as the reference point by stating own attitude towards a new product prior to predicting the adoption level, no threat to identity is posed. Therefore, projection of own attitudes to others' occurs for both high and low need for uniqueness individuals. This prediction is in line with Ames and Iyengar (2005), who find that perceived similarity rather than need for uniqueness predicts the degree of attitude projection when the self is the reference point for comparison.

H1: Individuals with both low and high need for uniqueness who state a more positive attitude towards a product will provide higher estimates of others' product adoption than those who state a less positive attitude towards the product.



H2a: Individuals with low need for uniqueness who predict high estimates of others' product adoption will state a more positive own attitude towards the product than those who predict low estimates of others' product adoption.

H2b: Individuals with high need for uniqueness who predict high estimates of others' product adoption will show no significant difference in stating own attitude towards the product from those who predict low estimates of others' product adoption.

*To test these hypotheses, study one varies the point-of-reference for social comparisons to investigate potential motivational projection processes resulting from self-other asymmetry. We use new consumer products as stimuli since individuals do not have prior information regarding own attitudes or market share. The absence of such information makes projection a relevant procedure for formulating own attitude or estimating the opinions of others.*

## STUDY 1

### Method

*Participants.* Two hundred and seventy-two undergraduate students participated in the study in partial fulfillment of course requirements.

*Design and Procedure.* The experiment utilized a 2 (Order: Attitude First vs. Adoption Level Prediction First) x 2 (CNFU Level: High vs. Low, measured) between-subjects design. Participants were first presented with a new product advertisement. In the attitude first condition, participants first provided their attitude towards the new product and then predicted the adoption

level of the new product. The order of providing attitude and predicting adoption level was reversed in the adoption level prediction first condition. Attitude was solicited by asking the respondents, "How much do you like the new product?" on a six-point scale with 1 corresponding to "not at all" and 6 indicating "very much." Adoption level was assessed using responses to the question, "Assuming that the product is affordable, what percentage of U.S. consumers do you think will purchase the new product?" Responses were provided using an open ended scale with "\_\_\_\_%" sign as an anchor.

In addition to a series of product related questions, participants completed the thirty-one item CNFU scale (Tian et al. 2001). All items were averaged (Cronbach's alpha = .95) and a median split was used to divide the participants into low and high need for uniqueness groups.

## Results and Discussion

The data were first divided into two groups according to the order condition in order to provide meaningful analysis. In the attitude first condition, participants were divided into low and high attitude groups using a median split on the measure assessing attitude towards the product. A 2 (Attitude: High vs. Low) x 2 (CNFU Level: High vs. Low) ANOVA was run. The results showed no significant interaction of CNFU and attitude levels in the attitude first condition ( $F(1,135)=0.43, p=0.51$ ) (see Figure 1a), providing support for H1. Both low and high CNFU individuals projected their product evaluations to members of the general public in the condition where attitude towards the product was provided prior to adoption level. There was a significant difference ( $t(1,70)=-2.28, p=0.02$ , and  $t(1,73)=-3.53, p<0.01$  for low and high CNFU participants, respectively) between the predicted adoption levels for the individuals who liked ( $M=49.2$  and  $M=55.5$  for low and high CNFU participants, respectively) and those who disliked ( $M=33.0$  and  $M=33.4$  for low and high CNFU participants, respectively) the product.

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Insert Figure 1 about here  
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For the adoption level prediction first condition, a median split was used to divide the participants into low and high adoption level prediction groups. A 2 (Adoption Level Prediction: High vs. Low) x 2 (CNFU Level: High vs. Low) ANOVA was conducted. Consistent with H2a and H2b, a significant interaction of CNFU and predicted adoption levels was present in the adoption level prediction first condition ( $F(1,133)=4.69, p=0.03$ ) (see Figure 1b). Low CNFU individuals who first predicted the adoption level of the new product projected their predictions to their own attitude. There was a significant difference ( $t(1,74)=-4.37, p<0.0001$ ) between the attitude levels of the low CNFU participants who predicted a high adoption level ( $M=4.15$ ) and those who predicted a low adoption level ( $M=2.68$ ) for the product. High CNFU individuals, however, did not project when they first predicted the adoption level of the new product. Hence, there was no significant difference ( $t(1,57)=-0.84, p=0.40$ ) between the attitude levels of the high CNFU participants who predicted a high adoption level ( $M=3.47$ ) and those who predicted a low adoption level ( $M=3.13$ ) for the product.

The results of the first study lend support to H1 and H2. Across both order conditions, low need for uniqueness individuals projected their product evaluations to members of the general public; if individuals disliked (liked) the product they estimated a lower (higher) adoption level. In contrast, high need for uniqueness individuals projected in the attitude first condition but did not project in the condition where adoption level was first predicted. We predicted these results as reactions to threats to self-perceptions of uniqueness which occur in the condition where adoption level is predicted first. This is due to the fact that another person (as opposed to the self) serves as the point of reference.

H1 and H2 reflect predicted differences in the moderating role of need for uniqueness based on reference point. If it is the threat to self-perception rather than perceived similarity to others that accounts for differences in projection between H1 and H2, manipulating perceived similarity to others will test this assumption related to the underlying process. Individuals should perceive themselves as more unique after listing their differences from others. We posit that this increased accessibility of differences from others should change the level of projection according to the reference point for comparison. Specifically, in the condition where the self is the comparison reference point, individuals will not project irrespective of the level of uniqueness motive since the reference point does not generate a threat; instead, they will rely on the differences made salient by the manipulation to arrive at estimates of adoption level. In contrast, where an other serves as the reference point for comparison feelings of differentness relative to others should affirm self-perceptions of uniqueness for high need for uniqueness individuals. Consequently, the threat created by an other as a reference point is alleviated and these individuals therefore project others' adoption level to their own attitude. As low need for uniqueness individuals are not threatened by similarity, they should respond in a manner similar to low need for uniqueness individuals in the attitude first condition by not projecting after the difference manipulation.

*H3: After listing their differences from others, individuals with both low and high need for uniqueness who state a more positive attitude towards the product will show no significant difference in predicting others' product adoption from those stating a less positive attitude towards the product.*

*H4a: After listing their differences from others, individuals with low need for uniqueness who predict high estimates of others' product adoption will show no significant difference in*

*stating own attitude towards the product from those who predict low estimates of others' product adoption.*

*H4b: After listing their differences from others, individuals with high need for uniqueness who predict high estimates of others' product adoption will state more positive own attitude towards the product than those predicting low estimates of others' product adoption.*

H3 and H4 are tested in study two, which includes a difference manipulation in addition to the variation of reference point. We follow a procedure identical to study one except for the inclusion of a manipulation in which respondents are asked to assess their dissimilarities from other students.

## STUDY 2

### Method

*Participants.* Two hundred and seventy-two undergraduate students participated in the study in partial fulfillment of course requirements.

*Design and Procedure.* The experiment utilized a 2 (Order: Attitude First vs. Adoption Level Prediction First) x 2 (CNFU Level: High vs. Low, measured) x 2 (Perceived Similarity: Different vs. Control) between-subjects design. The procedure employed and measures collected were identical to those in study one except that a manipulation of perceived similarity to others was included. This assessment, made in between the statement of attitude and prediction of adoption level, asked participants to state the ways in which they are different from the average undergraduate student. Subjects in the control condition were asked to list the reasons they chose their major course of study.

## Results

Results from the control condition replicated the findings from study one. In the attitude first condition, both low and high CNFU individuals projected; there was a significant difference ( $t(1,34)=-1.88, p=0.06$ , and  $t(1,32)=-1.97, p=0.05$  for low and high CNFU participants, respectively) between the predicted adoption levels for the individuals who liked ( $M=46.9$  and  $M=44.9$  for low and high CNFU participants, respectively) and those who disliked ( $M=28.4$  and  $M=26.0$  for low and high CNFU participants, respectively) the product. In the adoption level prediction first condition, there was a significant difference ( $t(1,34)=-3.47, p<0.01$ ) between the attitude levels of the low CNFU participants who predicted a high adoption level ( $M=3.67$ ) and those who predicted a low adoption level ( $M=2.07$ ) for the product. There was no significant difference ( $t(1,25)=-1.18, p=0.25$ ) between the attitude levels of the high CNFU participants who predicted a high adoption level ( $M=3.83$ ) and those who predicted a low adoption level ( $M=3.27$ ) for the product.

As H3 suggests, ANOVA results showed no significant interaction between CNFU and attitude levels either in the attitude first condition ( $F(1,66)=0.00, p=0.99$ ) (see Figure 2a). In the condition where the participants first provided their attitude towards the product neither low nor high CNFU participants projected after stating their differences from others. There was no significant difference ( $t(1,38)=-0.96, p=0.34$ , and  $t(1,26)=-0.93, p=0.36$  for low and high CNFU participants, respectively) between the predicted adoption levels for the individuals who liked ( $M=50.5$  and  $M=56.2$  for low and high CNFU participants, respectively) and those who disliked ( $M=41.4$  and  $M=47.3$  for low and high CNFU participants, respectively) the product.

When participants first predicted the adoption level, there was a significant difference between the attitude levels of high CNFU participants ( $t(1,36)=-5.60, p<0.0001$ ) who predicted a high adoption level for the product ( $M=4.19$ ) and those who predicted a low level of adoption for the product ( $M=2.32$ ), lending support to H4b. In addition, there was a significant difference ( $t(1,27)=-4.02, p<0.01$ ) for low CNFU participants who predicted a high adoption level for the product ( $M=4.40$ ) and those who predicted a low level of adoption for the product ( $M=2.43$ ), failing to support H4a (see Figure 2b).

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Insert Figure 2 about here  
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## DISCUSSION AND CONCLUSION

Study two results replicate the findings of study one, lending additional support to hypotheses one and two. Moreover, high need for uniqueness participants' responses to the difference manipulation supported the proposed explanation for motivational processes underlying social projection. In the attitude first condition, no threat to uniqueness is generated as the self is affirmed due to its role as the standard for social comparison. Low and high need for uniqueness individuals fail to project their attitudes to estimate others' product adoption as the difference manipulation makes differences more accessible than similarities. Similar to the findings of Ames and Iyengar (2005), we find support for the dominance of perceived similarity to others when the self acts as the reference point for social comparison. In this case, individuals rely on salient similar or dissimilar information in projecting or failing to project to others.

In the adoption level prediction first condition, high need for uniqueness participants face the threat of similarity due to an other acting as the reference point (Codol 1987). Asking

respondents to state their differences from others, however, alleviates this threat for high need for uniqueness individuals by affirming the self as different from others. Thus, high need for uniqueness individuals project others' preferences onto their own attitudes in this condition. Because there is no threat to identity for low need for uniqueness individuals, we hypothesized that participants with low need for uniqueness would not project in this condition. However, results show that they also project after they list their differences from others. It is possible that for these individuals, stating differences from others may be seen as a threat to self-perceptions of similarity. As a result, these individuals may project in order to alleviate feelings of discomfort associated with feeling different than others. This explanation is consistent with research on consumer conformity, which suggests that individuals with high attention to social comparison information may feel discomfort when they focus on their dissimilarities from others (Bearden and Rose 1990).

Overall, the results lend support to the proposition that the point of reference for comparison, as well as consumer uniqueness motivation, determines the level of projection of product evaluations. While low need for uniqueness consumers are not affected by perceived similarity, high need for uniqueness consumers are more likely to accept perceived similarity when the self (as opposed to an other) serves as a point of reference or when their uniqueness is preserved by other means, such as increasing the accessibility of their differences from others.

This research has both theoretical and practical contributions. Theoretically, we lend insight to the nature of the social projection process by providing a motivational perspective and extending the findings of Ames and Iyengar (2005) by demonstrating that need for uniqueness does moderate social projection of product evaluations depending on the reference point for social comparison. Practically, the results have implications for formulating marketing strategies



for new products when the market penetration level is not known. Depending on the uniqueness motivation of target consumers, the utilization of different reference points in advertising messages may lead to more positive attitudes towards the new product.

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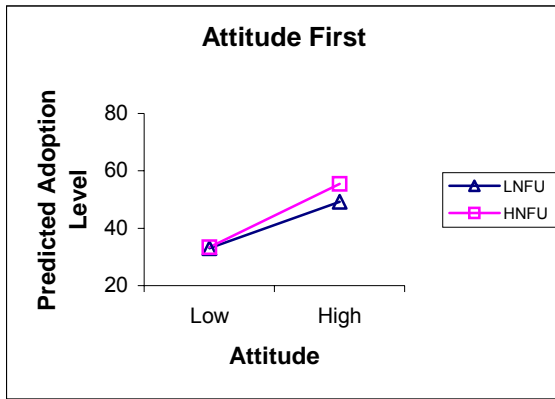
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FIGURE 1

(a)



(b)

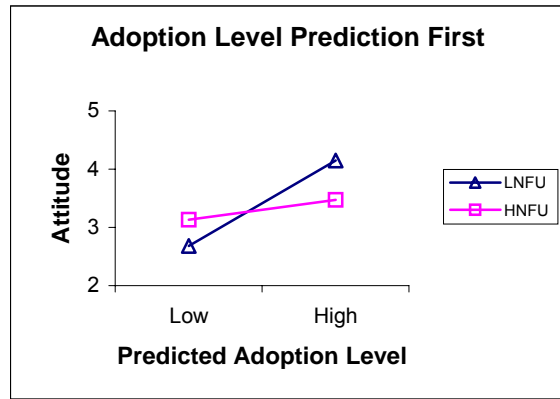
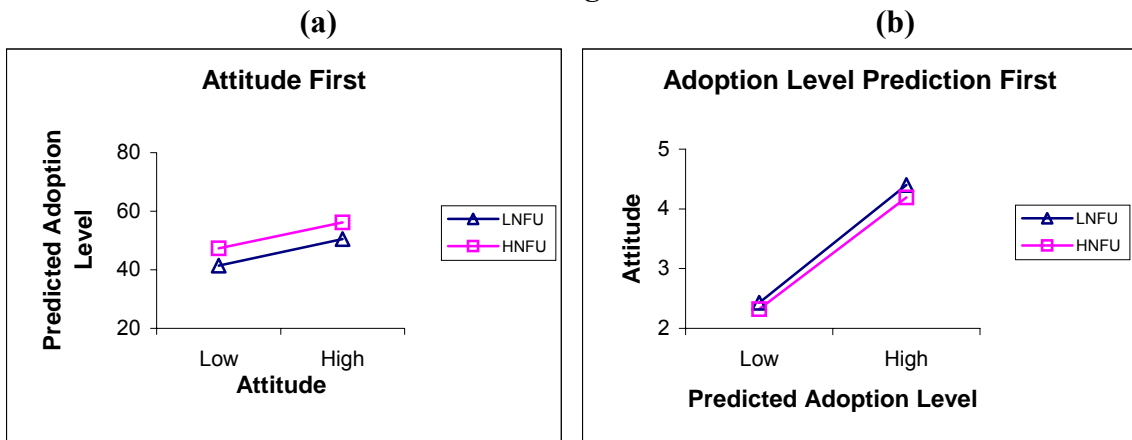


Figure 2



To Change or Not to Change: Attitude Shift when Anticipating Group Interaction

*Duhachek Adam, Zhang Shuoyang, Krishnan Shanker, Indiana University*

TO CHANGE OR NOT TO CHANGE:  
ATTITUDE SHIFT WHEN ANTICIPATING GROUP INTERACTION

ADAM DUHACHEK

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SHUOYANG ZHANG

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## Abstract

The present research investigates the influence of anticipated group interaction on consumers' individual product attitudes. Building on recent findings, this research proposes a valence-contingent framework of group influence on product attitudes. The framework predicts that negatively valenced group attitudes produce the highest levels of attitude shift and that these effects are amplified when group attitudes are inconsistent with individual attitudes. The research proposes a boundary condition on group influence, showing that anticipated group interaction moderates this effect, producing the greatest levels of attitude shift when group attitudes are consistent with individual attitudes. Empirical evidence was provided in support of the prediction, as well as the mechanism through which these effects operate. The research concludes with a discussion of the implications of these findings for the emerging consumer literatures on valence asymmetry and anticipated group interaction.



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**9:50am – 11:05am: Session 8 (Special Sessions)**

**Session 8A (Spirit Dining Room)**

**Similar Objects, Similar People, Similar Brands: New Considerations of Similarity and its Implications**

*Chair: Gershoff Andrew, University of Michigan*

*Discussant: Katherine Burson, University of Michigan*

How do we Love it, Let me Count the Ways: Attribute Ambiguity, and the Positivity Effect in Perceptions of Interpersonal Similarity

*Andrew Gershoff, University of Michigan*

*Ashesh Mukherjee, McGill University)*

*Anirban Mukhopadhyay, Hong Kong Univeristy of Science and Technology*

Similarity, Visualization and Concept Evaluation

*Don Lehmann, Columbia University*

*Jennifer Ames Stuart, Bayer*

*Gita Johar, Columbia University*

*Anil Thozhur, Columbia*

Money: A Bias for the Whole

*Arul Mishra, Himanshu Mishra, Dhananjay Nayakankuppam, University of Iowa*

Perceptions of similarity have been shown to play an important role in consumer judgment, evaluation, and choice. For example, perceived similarity of products has been shown to affect amount of information search (Ozanne, Brucks, Greewall 1992) formation of product preferences (Dhar, Nowlis, and Sherman 1999) evaluations of brand extensions (Meyvis and Janiszewski 2004) and product choice share (Huber, Payne and Puto 1982). Likewise, perceived similarity between oneself and others has been shown to affect acceptance of advice from others (Gershoff, Mukherjee, Mukhopadhyay 2003) compliance with requests (Garner 2004), and salesperson influence (Woodside and Davenport 1974). Despite the extant research showing the effects of similarity, many questions still remain about just how two objects or individuals come to be judged as similar, and the process by which similarity affects evaluation and choice. Thus, the purpose of this session is to push the boundaries of our understanding of how perceptions of similarity are formed and how they affect consumer evaluation and choice.

Art Markman, who makes the first presentation, brings together several of his recent research studies that explore the rules that govern structural representations as they relate to similarity judgment. Current understanding of similarity assessments includes the idea of structural representation, or representing objects in terms of certain inherent structures that individuals (or consumers) observe in reconciling commonalities with differences. This work will discuss new ways of mapping similarity data and new ways of understanding similarity processes (including the notion that some similarity processes could be automatic). Further, he will discuss the influence of the fluency of the process on similarity assessment.

The second paper, by Gershoff, Mukherjee, and Mukhopdhyay, will add to the richness of the discussion of the process by which similarity judgments are made. This presentation describes an asymmetry in consumers' evaluations of their own similarity to prospective agents who may provide recommendations or evaluations to the consumer. This asymmetry manifests as a positivity effect where consumers perceive greater similarity to a prospective agent if they have agreed on a loved compared to a hated alternative. First, pilot studies show that people experience greater ambiguity in predicting the ratings of the attributes in an alternative that a person hated compared to one that was loved. Next, three studies

show how this difference in attribute ambiguity mediates the positivity effect on evaluations of the similarity between oneself and others and the suitability of the other to act as an agent.

Finally, the third paper, by Johar, Lehmann, Stuart, and Thozhur will add to our discussion of the process by which similarity affects consumer evaluations. Specifically they present two studies that explore the influence of similarity on consumer evaluations of brand extensions. Forwarding the notion that consumers engage in different mental and behavioral processes if they perceive objects to be similar (as opposed to dissimilar), extensions that are perceived to be highly similar are shown to facilitate visualization more than less similar extensions. Such spontaneous visualization in turn enhances the evaluations of the brand extensions.

This session on the process and effects of similarity evaluations will appeal to a broad spectrum of SCP members. Similarity assessments continue to be the basis on which evaluations of objects and consumers' subsequent responses to them occur. The first paper broadens our view on analyzing and interpreting similarity-based data, thereby preparing the ground for various applications. The other two papers in this session study offer diverse and yet relatively direct consequences of similarity processes that affect everyday marketing practice, building on the notion of interpreting the definition of 'similarity' differently.

### **On Similarity Judgments**

Art Markman (University of Texas)

Research on similarity has typically had to focus on two separate issues. First, people's assessments of similarity are related to the commonalities and differences that can be extracted from a pair. Second, not only are people able to detect these commonalities and differences, but they are also able to come up with an overall judgment of the similarity of a pair. These judgments are only moderately correlated with the number of commonalities and differences of a pair. Both of these topics have been the subject of research, and both have implications for the study of decision making.

Work on the structural alignment view of similarity has focused on the kinds of commonalities and differences that emerge from comparisons. This work suggests that people are able to detect commonalities and differences both in the attributes that describe objects as well as the relations that bind

together the attributes of objects. These relations may also describe the causal structure of objects. In addition, people are able to detect two kinds of differences: alignable differences, which are aspects of a pair of objects that correspond despite being dissimilar, and nonalignable differences, which are aspects of one item that have no correspondence in the other. This work on similarity highlights the relationship between similarity and processes of analogical reasoning.

Work on the source of similarity judgments suggests that people's judgments of similarity may be strongly influenced by the fluency of the process of comparison. That is, people may use fluency as a proxy for similarity, because people can quickly detect whether a comparison is progressing fluently. This fluency may serve as a signal that further cognitive resources may be profitably applied to a process. As a demonstration of this point, we find that people's similarity judgments are systematically elevated for items that an experimental setting makes familiar relative to those items that the setting makes unfamiliar. We suggest that these familiarity effects may influence similarity judgments in a manner similar to the way mere exposure effects influence preference. I will present a model of similarity judgment that integrates information from both the commonalities and differences present during comparisons as well as other sources.

### **How Do We Love It, Let Me Count the Ways:**

#### **Attribute Ambiguity, and the Positivity Effect in Perceptions of Interpersonal Similarity**

Andrew D. Gershoff (Stephen M. Ross School of Business, University of Michigan)

Ashesh Mukherjee (McGill University)

Anirban Mukhopadhyay (Hong Kong University of Science and Technology)

Individuals are more likely to allow another person to act as their agent and rely on their recommendations if they believe that their tastes are similar (Feick and Higie 1992). Recent research has shown a positivity effect in agent appraisal, such that people perceive greater similarity between themselves and prospective agents with whom they have agreed if the agreement was about an alternative that they both loved, rather than one that was hated (Gershoff, Mukherjee, Mukhopadhyay 2003). We propose and test an attribute-level diagnosticity-based mechanism for this effect. First, two pilot studies show that variance in individuals' ratings of attributes of loved alternatives is shown to be less than the variance in

ratings of attributes in hated alternatives and as such, knowing that someone hates an alternative is more ambiguous for understanding their tastes than knowing that someone loves an alternative. Next, three completed studies show how this ambiguity in understanding another's evaluations leads to the asymmetry in evaluations of similarity for agreements on loved compared to hated alternatives. Study one manipulated the number of attributes used to describe the alternative. Consistent with expectations, the positivity effect was amplified when there were more attributes to describe the alternative, thereby increasing ambiguity for hated alternatives, but not for loved alternatives. Study two manipulated the number of alternatives on which the individual and the other agreed. A greater number of agreed upon alternatives provided more information, reducing ambiguity for hated alternatives, and decreasing the positivity effect. Finally, study three manipulated whether the potential agent's attribute ratings

associated with his or her loved and hated alternatives were provided or not. As expected, providing attribute ratings decreased ambiguity for the hated alternatives and attenuated the positivity effect. Further, as predicted, ambiguity about the prospective agent's attribute ratings is shown to mediate this effect.

### **Similarity, Spontaneous Visualization and Concept Evaluation**

Don Lehmann (Columbia University)

Jennifer Ames Stuart (Bayer)

Gita Johar (Columbia University)

Anil Thozhur (Columbia University)

Judgments of similarity between two objects (a core brand and its extension, in this case) lead to a chain of mental operations that do not occur when the same objects are judged as dissimilar. One such operation involves the ability to visualize the product (given its physical absence) spontaneously. Customers responding to brand extension concepts—by visualizing the product (or spontaneous visualization) also tend to evaluate these extensions differently. Specifically, our studies show that spontaneous visualization is more likely to occur when the brand extension enjoys a high degree of similarity with the parent category. Further, brand extensions that are spontaneously visualized and create appealing images tend to be evaluated higher than extensions that are judged to be dissimilar. In addition, in support of the notion that visualization leads to more accurate concept ratings, we find a stronger link between product evaluations and delayed choice when evaluations are based on visualization; evaluations based on visualization are hence more “valid” in the sense of predicting subsequent behavior. Visualization has an effect on evaluations via image appeal so that evaluations are more favorable when the appeal of the visualized image is high but less favorable when image appeal is low. Finally, visualization-based evaluation is more predictive of later choice compared to evaluation based on other factors. Implications of these findings and ideas for future research are discussed.

## MONEY: A BIAS FOR THE WHOLE

ARUL MISHRA

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HIMANSHU MISHRA

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DHANANJAY NAYAKANKUPPAM

University of Iowa

### Abstract

We document a phenomenon, a “bias for the whole”, wherein greater value is perceived for money in the form of a whole (large denomination) compared to equivalent amounts of money in parts (smaller denominations), resulting in a lower inclination to spend with the whole. We demonstrate across four experiments that the bias arises from greater processing fluency experienced in processing the whole, as opposed to parts. This processing fluency is hedonically marked and generates positive affect that is attributed to the money, resulting in an over-valuation of the whole, making one reluctant to spend with the whole.

**Session 8B (Spirit Dining Room)**



**Committed consumers: Psychological Investment and Consumer Behavior**

*Chair: Norton Michael, Harvard Business School; Leonard Lee, Massachusetts Institute of Technology*

*Discussant: Naomi Mandel, Arizona State University*

Members Only: Why Paying Fees Can Increase Spending

*Leonard Lee, Massachusetts Institute of Technology*

*Michael I. Norton, Harvard Business School*

Impulsive Spending as Predicted by Self-Control Resources

*Kathleen D. Vohs, University of Minnesota*

*Ron Faber, University of Minnesota*

The Endowed Progress Effect: How Artificial Advancement Increases Effort

*Joseph C. Nunes, University of Southern California*

*Xavier Drèze, University of Pennsylvania*

## **Session Summary:**

Membership-based and loyalty programs enjoy a significant presence in today's consumer retail marketplace, part of an increased emphasis on customer relationship management. In general, firms expect – and find – that investing effort into consumers pays dividends. This special topic session approaches the question of investment from a different angle – rather than explore how firms can invest in consumers, we explore how firms can lead consumers to invest in them. More generally, the talks in this session explore the impact of psychological investment on consumer behavior, the effects of investing time, money, and effort on consumers' loyalty and spending. Lee and Norton show that investing money (by paying fees to enter stores) leads to increased spending, despite the fact that consumers believe that fees have the opposite effect. Vohs demonstrates that investing resources in self-control in the short term subsequently leads to more impulsive consumer spending. Finally, Nunes and Drèze show that the feeling of having invested effort – by leading consumers to believe they have made advancements in loyalty programs – leads to increased subsequent effort and commitment to firms. Each talk highlights the counterintuitive effects of investment: paying fees leads to greater spending, controlling the self leads to less consumer self-control, and the simple appearance of commitment leads to actual commitment.

### **Members Only: Why Paying Fees Can Increase Spending**

Leonard Lee, Massachusetts Institute of Technology

Michael I. Norton, Harvard Business School

While some research suggests that the pain of paying fees for services should lead firms to separate payment of such fees from consumption of the product (e.g., vacations), the present research explores the possibility that the aversiveness of paying such fees has the paradoxical effect of increasing subsequent spending. In the studies presented below, we show that: 1) the presence of fees increases spending (and overall store profitability); 2) fees serve as a signal of price, such that stores that charge fees are perceived as offering better deals; and 3) that consumers fail to intuit the impact of fees, predicting that fees will lead to *decreased* spending.

In a series of studies, we created stores in the laboratory and sold these goods to participants. Some participants were simply allowed to purchase items; other participants, however, were informed that the store charged a nominal fee, which they were required to pay before making a purchase. In Study 1, we found that the presence of the fee had no impact on the number of participants who went on to make a purchase, while in Study 2 we actually found that even more people were likely to make a subsequent purchase when charged a fee. Thus though the goods in the store were exactly the same in both conditions, having to pay a fee *increased* purchase likelihood. Most interestingly, participants who were required to pay a fee spent twice as much money in the store than those who were simply allowed to shop. Overall, then fees resulted in much greater profits for our “company”: Fees increased the likelihood of purchase, and the level of spending – and, of course, fees themselves generate revenue. To understand why fees would increase spending, we also assessed price perceptions, in a series of studies. Overall, results showed that fees serve as a signal for price; consumers have the strong belief that stores that charge fees do so because they offer lower prices on the same goods. However, when we assessed consumers intuitions about the impact of charging fees in a series of

surveys, they believed that fees would lead them to spend less, focusing on the negative aspects of such fees. Our results suggest that while paying fees may be aversive, this aversiveness may be offset by the increased perception of value that such fees engender, leading to greater spending.

### **Impulsive Spending as Predicted by Self-Control Resources**

Kathleen D. Vohs, University of Minnesota

Ron Faber, University of Minnesota

Research on impulsive spending had examined consumers' internal states, affective experiences, and generalized impulsive tendencies, but has not addressed the crucial role of self-control. The present research draws its hypotheses from a *limited resource model of self-control*, which states that one's ability to attain desired outcomes, override urges, and otherwise alter the self is governed by a global resource. This resource is finite and hence can become momentarily depleted by situational demands.

Four studies tested whether self-regulatory resources can determine impulsive spending. In Study 1, participants were shown a video accompanied by a series of irrelevant words that appeared on the bottom of the screen. Attention control demands were altered by instructing some participants to ignore the words. Afterwards, participants completed the Buying Impulsiveness Scale. The results showed that participants who engaged in attention control said they would be more likely to buy impulsively at that moment, as evinced by higher BIS scores. Study 2 used the same manipulation and showed that attention control participants gave higher

willingness to pay ratings than no attention control participants. In Study 3, participants in the behavioral control condition read a boring narrative aloud under instructions to be emotional; no behavioral control participants read the biographies naturally. Analyses showed that behavioral control participants spent more money and bought more products in a mock store, relative to no behavioral control participants. Study 4 ruled out “heart versus head” explanations and showed that depleted participants bought more food items than nondepleted participants. More generally, these studies suggest a promising pathway in self-regulation for understanding impulsive consumption.

### **The Endowed Progress Effect: How Artificial Advancement Increases Effort**

Joseph C. Nunes, Marshall School of Business, University of Southern California

Xavier Drèze, The Wharton School, University of Pennsylvania

Consumers often join loyalty programs, such that, if they purchase a specified quantity from a particular firm, they earn a reward for their patronage. These frequency programs are responsible for the creation of a variety of novel currencies (e.g. frequent flier miles, Hilton HHonors points) that have been designed to track customers’ progress towards earning rewards. We demonstrate how rewards serve as goals, and consumers often direct purchases to sellers with whom they have already made purchases in order to continue making progress towards their goal.

This research finds that firms can utilize the concept of what we call “endowed progress” to provide consumers additional motivation towards accumulating enough purchases to earn a reward. Endowed progress is defined as artificial advancement towards a goal. For example,

imagine a car wash that requires 12 purchases in order to earn one car wash free. On a customer's first visit, the cashier explains there is a special promotion underway and she affixes three stamps to the card instead of one stamp. Compare this to a visit upon which the customer receives a card with just 10 spaces and only one stamp. In the first instance, the customer is 25% of the way towards his or her goal of earning a free car wash, while in the latter example the customer is only 10% of the way there. Because both consumers must purchase the exact same number of car washes – 10 – in order to earn the reward, the advance provided by the two extra stamps is deemed artificial. Yet, the perception of advancement enhances customer retention by increasing the likelihood that they will return to firm to make future purchases.

We find that the incentive for consumers to persevere in a program that awards endowed progress depends on how far along consumers perceive themselves as being and not on the amount that would be lost by failing to continue. In other words, even if the endowed progress were more valuable (say, \$50 in purchases versus \$20), what consumers appear to pay attention to is how far they are along in relative terms (say, \$50 of \$500 is only 10% versus \$20 of \$100 required, or 20%). We also find that the effect can depend on the reason offered for the endowment. When there is no reason offered, the effect only occurs if the endowment is issued in an alternative currency such as points. However, when progress is recorded in the number of purchases made, the firm must offer a reason for the endowment, if even a specious one, such as the customer is being rewarded for showing up at the store on that particular day.

The endowed progress effect we document is shown to affect the attractiveness of a program to consumers, their perceived likelihood of joining a program, and their expectations of purchasing enough to earn the reward.

## **Session 8C (Spirit Dining Room)**

### **Helping Charities Help Themselves: Marketing Communications and Prosocial Behaviors**

*Chairs: White Katherine and John Peloza, University of Calgary*

*Discussant: June Cotte, University of Western Ontario*

The Effects of Content, Placement, and Delivery Characteristics on Televised Fundraising for Nonprofit Organizations

*Robert J. Fisher, University of Western Ontario*

*Mark Vandenbosch, University of Western Ontario*

*Kersi D. Antia University of Western Ontario*

Hey, What Gives? The Effects of Altruistic Versus Egoistic Charity Appeals on Donation Intentions

*John Peloza, University of Calgary*

*Katherine White, University of Calgary*

A Proposed Charitable Donation Taxonomy

*Tanya Drollinger, University of Lethbridge*

## **Session Proposal**

The objective of the proposed session is to gain a deeper understanding of consumer responses to marketing appeals by charities and other nonprofit organizations. Charitable support, in all of its various forms, is a widespread type of consumption in Western economies. For example, 89% of Americans donated to charity in 2004, averaging \$1,620 in monetary donations and an estimated \$272 billion in volunteer time (Independent Sector 2005). But charities face the unique challenge of motivating people to support them when the goods and services they provide may not confer any direct consumer benefits. Although previous researchers have called for more study of consumption in forms other than traditional product purchase and usage (e.g., Holbrook 1995), the study of charitable support behavior has produced mixed, fragmented insights.

The following session presents three papers that integrate previous research and examine marketing appeals for charitable donations in new ways. The session will provide important insights into the conditions under which consumers will be more likely to offer charitable support (presentations 1 and 2), the use of positive and negative emotions in fundraising appeals (presentation 1), and how the type of charitable support behavior influences the efficacy of marketing communications (presentations 2 and 3). In particular, presentation 1 presents results from a comprehensive study of a public television funding drive. The authors build and test a model of charitable donation that includes an examination of a number of aspects related to the donation appeal. Presentation 2 examines moderators on the efficacy of altruistic and egoistic fundraising appeals and demonstrates that consumers' reactions to each of these appeals are indeed influenced by situational factors. Finally, presentation 3 outlines arguments for the use of different fundraising appeals based on the form of the donation behavior, and



develops a taxonomy to guide future researchers and practitioners seeking consumer donations. Taken together, these three papers highlight how marketing communications can enhance charitable donations, and provide an integration of current research in a topic area that is not only of critical importance to the field of consumer behavior, but also to our society. We intend to allocate 15 minutes of presentation time and 5 minutes of Q & A for each paper. Following the papers, June Cotte will lead the discussion with an integrative 15 minute commentary, leaving 10-15 minutes for an open discussion.

These three papers center on the importance of marketing communications in the donation process, and each makes a unique contribution to the literature. Two of the three papers present completed research and contain empirical data from multiple studies, while the third paper presents a high level view of the extant literature on charity donations with a specific focus on the use of marketing communications by charities. We expect interest from a relatively broad audience, with specific interest garnered from those interested in consumer behavior, marketing communications and advertising, and social marketing. We believe that the work presented highlights an important, yet understudied, topic in consumer research. In addition, we anticipate that this session will serve as a catalyst for future research initiatives and provide a basis for an interesting discussion at the conference.

## **The Effects of Content, Placement, and Delivery Characteristics on Televised Fundraising for Nonprofit Organizations**

*Robert J. Fisher, Mark Vandebosch, and Kersi D. Antia*

How and to what extent do fundraising campaigns motivate people to support organizations such as PBS, the Red Cross, and World Vision? We address this question by developing and testing a model that predicts actual donations in response to four televised fundraising campaigns by a public television station. We build a unique dataset that combines data from four sources to assess the effects of appeal dimensions that are relevant for nonprofit marketing. We code the on-air scripts used during 584 pledge breaks situated between normal programming to identify pledge break characteristics that are managerially relevant to nonprofit managers. A separate panel of 89 judges drawn from the television station's target audience was used to code the underlying dimensions of the fundraising appeals used during the pledge breaks. These dimensions are of theoretical interest to marketing academics studying advertising effects. Nielsen<sup>®</sup> ratings were incorporated into the dataset to assess the effects of audience size and composition. These three data sources were combined and used to predict the fourth data set which was composed of actual dollars donated in response to the pledge breaks. Key findings include:

- The more frequently the station used other-benefit appeals, the greater the donations during the break. It appears that viewers were more likely to support the station when they believed they would be assisting others (i.e., society at large, other viewers, or the station itself) rather than themselves.
- Only appeals that evoked negative emotions significantly increased the dollars pledged each break. The results are consistent with helping theory which suggests

that empathy for someone in need creates a negative emotional response that is alleviated through helping behaviors.

- The use of argument did not have an effect on the amount of money donated to the station.

A variety of additional tactics used by the station were also important. The research has important implications for our understanding of why people give and how to motivate them to do so.

## **Hey, What Gives? The Effects of Altruistic Versus Egoistic Charity Appeals on Donation Intentions**

*John Peloza and Katherine White*

The Dalai Lama said: “If we give with the underlying motive of inflating the image others have of us... we defile the act. In this instance, what we are practicing is not generosity but self-aggrandizement.” However, can charitable organizations facing an increasingly competitive marketplace for donations afford to rely solely on those who donate for purely altruistic reasons?

In the face of unprecedented competition, charities have adopted many sophisticated marketing techniques – relationship marketing, branding, and the measurement of marketing return on investment – previously considered to be the domain of their for-profit counterparts. One of the more notable techniques used by charities to increase support is a move away from traditional charitable marketing strategies that are characterized by altruistic appeals to initiatives that focus more on the egoistic (i.e., selfish) benefits received by the donor (Hassay and Peloza 2005).

The long-running debate between those who argue that charitable donations are based in altruism (e.g., Batson 1990) and those who argue charitable donations are merely an exchange relationship an individual enters expecting to receive a benefit (e.g., Cialdini et al. 1987) highlights the primary distinction between the majority of charitable appeals. When charities are seeking donor support they typically position the appeal either as an opportunity to help others (i.e., an altruistic appeal) or an opportunity for the donor to receive something in return (i.e., an egoistic appeal). There remains serious debate over which appeal provides the most persuasive argument for potential donors and previous research has produced mixed evidence supporting the

effectiveness of both altruistic appeals and egoistic appeals (e.g., Pessemier, Bemmaor, and Hanssens, 1977; Holmes, Miller, and Lerner 2002). Thus, whether altruistic or egoistic appeals lead to more positive consumer responses to requests for charitable donations remains equivocal. The current paper seeks to address this contradiction by exploring moderators of the influence of appeal type (i.e., altruistic versus egoistic) on donation intentions.

In the first of three studies, supported by social exchange theory, we find that the success of egoistic appeals is moderated by the form of the donation. Specifically, consumers considering a donation in the form of volunteerism are found to be more responsive to egoistic appeals, while consumers asked for donations of money respond more readily to altruistic appeals. In the second study we find that donation intentions are influenced by whether or not the donor response is private or public. Specifically, in private situations donors scoring high in independence were more responsive to egoistic appeals, while donors low in independence were more responsive to the altruistic appeals. Furthermore this effect was mediated by egoistic motives to donate. The third study examines the moderating effects of altruistic/egoistic priming and perceived charitable need.

## **A Proposed Charitable Donation Taxonomy**

*Tanya Drollinger*

A decade ago Bendapudi, Singh and Bendapudi (1996) stated that “marketing literature, which is rich in research and theories about for-profit products and services, offers little guidance to charities on how to promote helping.” Charitable organizations fill a unique niche in the market place and generate billions of dollars in donations and services each year, so it is surprising that it has merited so little attention in scholarly literature (Giving USA 2004). Perhaps a reason for the dearth of research can be partly attributed to a lack of distinction between various types of helping behavior. An underlying assumption among market researchers regarding helping behavior is that it should be treated similar across all types of donation. This similar treatment has been manifest in several articles in marketing and consumer behavior (e.g., Bendapudi et al. 1996, Burnett and Wood 1984). Given that helping behaviors have been viewed as a conglomerate of behaviors it is easy to see how difficult it would be to make marketing implications about so many diverse behaviors. However ample evidence exists that would indicate that various types of helping behaviors should not be treated as analogous (Pearce and Amato 1980; Smithson and Amato 1982). More specifically, donating one’s blood and donating money are two very different behaviors and merit consideration as such. When donation behaviors are clearly differentiated on theoretical and empirical bases, assumptions regarding marketing practices can be correctly developed and applied to the non-profit sector that relies primarily upon them. The purpose of this paper is: 1) to bring to light the extant literature on helping and donation behavior that supports the concept that these behaviors are indeed separate and distinct activities; 2) to review theoretical and empirical research that

helps distinguish between the various types of donation behavior, and lastly 3) to propose a taxonomy of various types of helping behaviors that are then associated with rewards.

**11:10am – 12:10pm: Session 9 (Special Sessions without discussants – 1 hour sessions)**

**Session 9A (Spirit Dining Room)**

**Illuminating a Path Less Traveled: The Dark Side of Consumer Relationships**

*Chair: Yany Gregoire, Washington State University*

*Discussant: No discussant*

Customer Retaliation in Service Failures Contexts: The Effects of Perceived Betrayal and Relationship Strength

*Yany Grégoire, Washington State University*

*Robert J. Fisher, University of Western Ontario*

The Cost of Happiness: Trade-Offs in the Context of Strong Consumer-Brand Relationships

*Matthew Thomson and Jennifer Carson, Queen's School of Business*

Guilty and Ashamed of Having a Relationship: Consumer-Company Identification and Reactions to an Immoral Action

*Allison R. Johnson, Queen's School of Business*

*Valerie S. Folkes, University of Southern California*



## Illuminating a Path Less Traveled: The Dark Side of Consumer Relationships

Theories of consumer relationships illuminate the ways in which consumers can feel connected to companies and their representatives, brands, and products (cf. Fournier 1998; Bhattacharya and Sen 2003; Price and Arnould 1999). Research has revealed myriad benefits of such relationships such as enhanced customer loyalty and profitability (cf. Price and Arnould 1999; Sheth and Parvatiyar 1995; Bendapudi and Leone 2002). However, consumer relationships are not necessarily the panacea that has sometimes been portrayed in the marketing literature. Though there are benefits to both the firm and the consumer associated with strong relationships, there are also potentially significant costs that deserve examination.

This special session advances theory and empirically examines the related issue of what kind of negative or “dark side” effects can accompany strong consumer relationships. Prior research has suggested various negative features or outcomes of consumer relationships with, for example, brands and service providers (Fournier 1998; Grayson and Ambler 1999). This session builds on this literature by presenting the empirical results that examine the potential negative effects of three different operationalizations of strong marketing relationships involving consumers. The theoretical approaches used in these three studies focus on the affective and behavioral consequences of relationships and are used to predict situations in which a consumer relationship may actually be detrimental.

The first presentation examines the effects of consumer relationships on betrayal and retaliation against a service firm (Grégoire and Fisher 2005). While one might expect consumers who enjoy a strong relationship with a firm to forgive transgressions, we find that relationship strength leads consumers to experience a heightened sense of betrayal after service failures and to report a strong desire to punish and hurt the service firm. The second presentation examines

tradeoffs by considering consumers' propensity to use credit, to overspend, and to experience elevated well-being as a result of their strong relationships with product brands (Thomson and Carson 2005). We find that the number of consumer-brand relationships predicts overspending and the use of credit but that the strength of consumer-brand relationships positively predicts, simultaneously, overspending *and* life satisfaction. The third presentation experimentally manipulates consumers' relationship with a company and examines purchase intentions and emotional reactions to a company employee's immoral action (Johnson and Folkes 2005). The findings show that consumers who identify with a company feel ashamed and guilty when one of its employees behaves immorally.

By delving into aspects of relationships that have received scant treatment in the marketing literature, we demonstrate the utility of various theories of relationships to predict and explain the "dark side" of relationship functioning. Documenting and explaining these "dark sides" is important not only from a theoretical perspective, but also from the point of view of consumers and companies. This special session presents empirical evidence of relationship pitfalls and discusses how these types of negative outcomes can be attenuated. Each presentation will also advance future research ideas and discuss how the theory and results might apply to other situations in consumer relationships.

***Presentation 1: Customer Retaliation in Service Failures Contexts: The Effects of Perceived Betrayal and Relationship Strength***

Yany Grégoire, Washington State University

Robert J. Fisher, Richard Ivey School of Business, University of Western Ontario

What leads loyal customers to try to punish a firm after service failures even if there is no material gain for doing so? This research develops an equity-based model to understand why customers retaliate and to explain the role of relationship strength in context of service failures (Walster, Berscheid, and Walster 1973). The model is tested on a national sample of 226 customers who complained to a government agency about the services they received. Our findings indicate that judgments about unfairness create a sense of betrayal (Koehler and Gershoff 2003), which in turn lead customers to restore fairness through two basic mechanisms. The first mechanism is to demand reparation in the form of a refund, product replacement, or apology. The second mechanism is to display retaliatory behaviors designed to hurt the firm including complaining to an online third party to create negative publicity, insulting frontline employees, or engaging in negative word-of-mouth.

This equity-based model reconciles divergent findings (i.e., unfavorable versus favorable) on the effects of relationship strength in service failure contexts (Aaker, Fournier, and Brasel 2004). On the one hand, our findings indicate that a strong relationship leads customers to experience a greater sense of betrayal after service failures. This is a negative effect because betrayal is closely associated with a generalized feeling of discomfort, intense negative emotions such as anger, and emotional distress. However, although strong relationship customers feel more betrayed after service failures, they use a more favorable strategy for restoring fairness in their relationship with service firms. Specifically, we find that relationship strength reduces the

tendency to retaliate and increases the propensity to demand reparation (i.e., favorable effects).

***Presentation 2: The Cost of Happiness: Trade-Offs in the Context of Strong Consumer-Brand Relationships***

*Matthew Thomson and Jennifer Carson, Queen's School of Business*

Attachment research suggests that a person with many strong interpersonal attachments is likely to report increased well-being (La Guardia et al. 2001) and a lack of compulsion to consume (Belk, Ger and Askegaard 2003). However, “the costs of having [consumer attachments] remains poorly understood” (cf. Kleine and Baker, 2004, p. 26). In this study, we consider whether the number and strength of a person’s strong relationships, operationalized by attachments, predict overspending, use of credit, and life satisfaction. Brand attachments may mimic interpersonal attachments in predicting life satisfaction (cf. Schultz et al. 1989). People who are attached to a particular object typically protect it, which in a consumer context may include compulsive, even excessive behaviors such as incurring substantial financial costs to possess the object (van Lange et al. 1997; Belk et al. 2003). This suggests that though consumer attachments may increase well being, they may also be linked to a tendency to overspend or use credit in purchasing that object.

A total of 200 participants completed a survey that considered life satisfaction and respondents’ tendency to overspend and use credit as a function of the number and strength of their brand attachments. Results reveal that an increasing number of brand attachments predicts both overspending and credit purchase but not life satisfaction. The strength of brand attachments predict both overspending and life satisfaction. These results suggest that consumers may derive emotional rewards from brand attachments but there is a trade-off since they are also associated excessive behavior. Thus, a firm’s attempts to strengthen consumer-brand attachments should be appropriately tempered with the knowledge that its efforts may

increase consumer well being but at the cost of promoting unsustainable spending behavior.

**Presentation 3: Guilty and Ashamed of Having a Relationship: Consumer-Company Identification and Reactions to an Immoral Action**

*Allison R. Johnson, Queen's School of Business*

*Valerie S. Folkes, Marshall School of Business, University of Southern California*

Consumer-company identification is a source of consumer relationships and occurs when a company or brand becomes relevant to the self-concept of the consumer (Bhattacharya and Sen 2003). The consumer's knowledge of the company – including any information or attributes associated with the company – contributes to identification when the company's image appeals to consumers' values and ideals (Bergami and Bagozzi 2000). Though positively biased reactions have been predicted, identified consumers may have negative emotional reactions to information that threatens the company's image. For example, an employee's immoral action could negatively affect the company's image, as happened when Martha Stewart was indicted.

This experiment manipulates consumers' level of identification with the company and measures differences in emotional reactions between those groups as well as within-subject changes in purchase and recommendation intentions. The manipulation of identification is based on research in psychology demonstrating that identification can be created by the mere assignment of labels that imply group membership (e.g., Cadinu and Rothbart 1996). Similarly, inducing participants to declare their willingness to purchase and recommend the company's products – implicitly labeling them “customers” of the company – creates consumer-company identification at a significantly higher level than that of consumers in the control condition.

In response to information that a company employee had committed an immoral action, purchase and recommendation intentions significantly decrease in identified consumers. Identified consumers also experience significantly higher levels than non-identified consumers of guilt and shame at being connected to the company. These negative emotional reactions suggest

consumers internalize negative information based on their relationship with the company.



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## **Session 9B (Spirit Dining Room)**

### **The Effect of Inferences on Decision-Making Under Attribute Uncertainty**

*Chairs: Irmak Caglar and Thomas Kramer, Baruch College / CUNY*

*Discussant: No discussant*

Effects of Positive Affect on Omission Detection in the Multi-attribute Evaluation and Ambiguity Aversion

*Susan Powell Mantel, Indiana University,*

*Frank R. Kardes, University of Cincinnati,*

*Alice M. Isen, Cornell University,*

*and Paul Herr, University of Colorado*

The Role of Selective Processing in Inferences Regarding and Choice of Marketing Options

*Steven S. Posavac, University of Rochester,*

*Frank R. Kardes, University of Cincinnati,*

*and J. Josko Brakus, University of Rochester*

The Effect of Preference Strength on Inferences and Choice

*Caglar Irmak, Baruch College*

*Thomas Kramer, Baruch College*

*Sankar Sen, Baruch College*

## **Session Summary and Rationale**

Only rarely do consumers have complete information on all product alternatives they are considering for purchase. Instead, they must often infer missing attribute values and then use these inferences as inputs in their decision-making. However, while the marketing literature has thoroughly investigated how consumers evaluate products or form attitudes using stimuli with complete attribute information, surprisingly little attention has been devoted to how incomplete information about attribute values and subsequent attribute inferences affect preference construction and choice. Additionally, whereas moderators have been put forth for decision-making with complete attribute information, we still know relatively little about the determinants of the effect of attribute inferences on decision-making.

Therefore, this session seeks to shed light on decision-making under attribute uncertainty, and more specifically, on the moderators of the effect of inferences on decision-making under attribute uncertainty. Specifically, the three papers (each including multiple studies and near or at the stage of completion) that will be presented in this session are complementary and share a common focus in examining the key questions of the effect of attribute inferences on preferences and the determinants of this effect. Highlighting the common element of inference-making following incomplete attribute information, each paper uses extensive data to look at a different moderator of the effect of inferences on decision-making. In particular, we identify and investigate the influence of affect (*Mantel, Kardes, Isen, and Herr*), preference strength (*Irmak, Kramer, and Sen*) and focus of comparison (*Posavac, Kardes, and Brakus*) as important determinants of the effect of inferences on decision-making under attribute uncertainty.

Overall, this session seeks to build a richer understanding of moderators of the effect of inferences on decision-making under attribute uncertainty. The unique presentations, along with the interactive discussion led by all three presenters, will appeal to a broad audience of

both researchers associated with social psychology and social cognition, as well as researchers in the behavioral decision theory area and preference construction.

## **Effects of Positive Affect on Omission Detection in the Multiattribute Evaluation and Ambiguity Aversion**

*Susan Powell Mantel, Frank R. Kardes, Alice M. Isen, and Paul Herr*

Although the beneficial influences of positive affect have been observed in several different research paradigms (e.g., Isen 2001), these influences have not yet been investigated in multiattribute evaluation when important attribute information is missing (e.g., Sanbonmatsu et al., 1997, 2003) or in gambles involving ambiguous or unknown probabilities (e.g., Ellsberg, 1961; Fox and Weber 2002). The goal of the present study is to investigate the role of positive affect in both paradigms.

Research on omission neglect – or insensitivity to unknown options or features – shows that the failure to detect the absence of important information leads people to form strong beliefs on the basis of weak evidence (Sanbonmatsu et al. 1991, 1992, 1997, 2003), unless a consumer is knowledgeable about the product category (Sanbonmatsu et al. 1992). Because positive affect facilitates creative and flexible information processing, we predict that positive affect should increase sensitivity to omissions. Therefore, in neutral affect conditions omission neglect should encourage the formation of relatively extreme judgments across set-size conditions, while positive affect should show variability in judgment across set sizes. In addition, positive affect may increase sensitivity to unknown probabilities in gambles. That is, people should be less willing to accept a risky bet involving unknown probabilities in positive affect compared to neutral affect conditions.

Two experiments were conducted to test the influence of positive affect on sensitivity to omission in both information and risk tasks. Experiment 1 used a set size manipulation and the results showed that positive affect (vs. neutral affect) participants were more likely to notice missing (and request additional) information in the small set-size condition, but not in a large set-size condition. The second experiment used a version of the Ellsberg 1961 paradigm to test ambiguity aversion. The data suggest that those who were in the positive affect group were more likely to

notice the missing information and thus choose the “sure bet” rather than the gamble. Taken together, these experiments suggest that positive (compared to neutral) affect subjects are more likely to notice missing information, request additional information, and be less confident of their decision (as shown by a lower willingness to take a risk).

## **The Role of Selective Processing in Inferences Regarding and Choice of Marketing Options**

*Steven S. Posavac, Simon School of Business, University of Rochester*

*Frank R. Kardes, University of Cincinnati*

*J. Josko Brakus, Simon School of Business, University of Rochester*

Marketing managers' decisions typically require assessment of or choice from a number of competing options. Optimal decision making requires the manager to make a choice based on comparative judgment of the options. However, in many instances, a manager's attention may be drawn to one option early in the decision process. Our primary objective was to show that focusing on one option from a set of possibilities can result in the focal option becoming perceived as more favorable than warranted given the available evidence, and that this bias in judgment may result in decisions that favor the focal option. We suggest that the process by which an alternative may come to be regarded more favorably due to being focal is selectivity in information processing. To the extent that a manager focuses on information about a focal alternative while neglecting competing alternatives, the focal alternative is likely to be perceived as particularly attractive. Consequently, if managers do engage in more comparative processing, inferences and choices will be less likely to be positively biased because managers will have considered the relative merits of the focal alternative vis a vis the other options.

Two experiments were conducted to test these notions. Consistent with predictions, in both experiments participants became overly favorable toward the focal option simply as a result of engaging in singular assessment of it. Moreover, these inferential biases were borne out in choice. The free response data showed that selectivity in processing was associated with more biased inferences and choices. Further analyses demonstrated that selective processing mediated choice bias because selectivity is related to positively biased inferences. Participants who were more comparative processors were far less biased. Thus, the implication of our findings is that comparative processing



is essential if one wants to avoid forming positively biased inferences, and accordingly making suboptimal decisions.

## *The Effect of Preference Strength on Inferences and Choice*

**Caglar Irmak, Thomas Kramer, and Sankar Sen**

Consumers often need to infer missing attribute values and then use these inferences as inputs in their decision-making. Given the ubiquity of decision-making under attribute uncertainty, there is a surprising dearth of research investigating the effect of inference making on preferences, and more specifically, how consumers' preference strength affects this relationship. We seek to start filling this gap.

Based on research related to confirmatory reasoning, we expect that consumers with strong (vs. weak) preferences are more likely to use biased processing in their inference making and will be less likely to switch to a competitive brand following attribute uncertainty. In a series of studies, we measured strength of participants' initial preference between two options with two attributes each, and then asked them to choose between the two options once again after adding a third attribute on which the initially chosen option had missing information. Surprisingly, the results of the first study showed that the introduction of attribute uncertainty had a larger effect on switching behavior for those with *strong* initial preferences rather than for those with *weak* initial preferences.

To test if these results were due to a contrast effect caused by the larger difference between the strong initial preference (vs. weak initial preference) and the uncertainty (negativity), the next study included a condition prompting respondents to infer the missing value before making their second choice. We find a significant interaction of initial preference strength and prompting on switching behavior. In particular, when not prompted to infer a value, those with strong initial preferences were more likely to switch than those with weak initial preferences.

However, after being prompted to infer the missing value, respondents with weak (vs. strong) initial preferences were more likely to switch.

Next, we investigated the process underlying the increased switching behavior of respondents with strong initial preference. Building on the risk-as-feeling hypothesis (Loewenstein et al. 2001), we find that in a high cognitive load condition, those with stronger (vs. weaker) initial preferences switched more. Conversely, when anticipating regret, respondents with weaker (vs. stronger) initial preference switch more to the alternative brand. Importantly, we find mediated moderation of feelings of risk on switching behavior.

## **Session 9C (Spirit Dining Room)**

### **Perceptual, Affective and Motivational Processes in Self-Regulation**

*Chair: Ramanathan Suresh, University of Chicago*

*Discussant: No discussant*

Self-Regulatory Resource Depletion Makes People More Extreme in Their Emotions and Judgments: A Possible Mechanism for Ego-Depletion

*Kathleen Vohs, University of Minnesota*

*Nicole Mead, Florida State University*

*Brandon Schmeichel, Texas A&M University*

*Sabrina Bruyneel, Katholiek University Leuven*

Moment-to-moment pursuit of hedonic goals

*Suresh Ramanathan, University of Chicago*

*Geeta Menon, New York University*

The Ego-Depleted Chameleon: Self-Regulatory Consequences for Social Asynchrony

*Amy N. Dalton, Duke University*

*Tanya L. Chartrand, Duke University*

*Eli J. Finkel, Northwestern University*

**DONE**

## **Proposed Special Session – SCP Cruise Conference**

***Title of Session: “Perceptual, Affective and Motivational Processes in Self-Regulation”***

***Session Chair*** Suresh Ramanathan, University of Chicago

***Discussion Leader*** **TBD**

### ***Speakers and Titles of Presentations***

1. “Self-Regulatory Resource Depletion Makes People More Extreme in Their Emotions and Judgments: A Possible Mechanism for Ego-Depletion”  
*Kathleen Vohs*, University of Minnesota  
*Nicole Mead*, Florida State University  
*Brandon Schmeichel*, Texas A&M University  
*Sabrina Bruyneel*, Katholik University Leuven
2. “Moment-to-moment pursuit of hedonic goals”  
*Suresh Ramanathan*, University of Chicago  
*Geeta Menon*, New York University
3. “The Ego-Depleted Chameleon: Self-Regulatory Consequences for Social Asynchrony”  
*Amy N. Dalton*, Duke University  
*Tanya L. Chartrand*, Duke University  
*Eli J. Finkel*, Northwestern University

Each author (italicized above) has agreed to present the paper at the conference if the proposal is accepted.

### ***Overview of the Session***

There has been considerable research in the social psychology and marketing literature on the topic of self-regulation and self-control (e.g, Carver and Scheier 1981; Fishbach, Friedman and Kruglanski 2003; Hoch and Loewenstein 1991; Ramanathan and Menon 2004; Shah, Kruglanski and Friedman 2002; Shiv and Fedorikhin 1999, 2002; Vohs and Schmeichel 2003). These have looked at self-regulation through a variety of lenses including goals and motivation, spontaneous and higher order affect, and mental resources. This session seeks to integrate some of these perspectives in presenting a dynamic view of self-regulation.

The broad purpose of this proposed session is to present work that adds to this growing body of research, and to delineate the intrinsic dynamics of self-regulation and to discuss perceptual, affective and motivational aspects to self-regulation. In doing so, we identify several new dimensions to these phenomena. For example, we aim to show that efforts at self-regulation may cause greater levels of intensity in subsequent emotional reactions (Vohs et al.). We also plan to show how hedonic goals and regulatory goals come into conflict on a moment-to-moment basis and how people's pursuit of these goals and their emotional reactions are influenced over time (Ramanathan and Menon). Finally, we also propose to show how social influences can affect self-regulation at a non-conscious level through perceptual processes (Dalton et al.). The specific purposes of the proposed session are: (a) to outline the theoretical processes at play, whether cognitive, affective or motivational, (b) to determine the conditions that facilitate and impede these processes and to understand the boundary conditions thereof; and (c) to explore these effects in different domains, across multiple research paradigms.

### ***Potential Contribution***

The papers in this session explore the mechanisms by which efforts at self-regulation may influence and in turn be influenced by affective and motivational processes. For instance, the paper by Vohs and co-authors shows that trying to exert self-regulation leads to more intense experience of both positive and negative emotions. In other words, people experience higher peaks and lower troughs in subsequent affective experiences. The paper by Ramanathan and Menon provides evidence of both affective and motivational processes at play in self-regulation, as it explores the moment-to-moment experience of approach/avoid reactions in response to hedonic or healthy stimuli. Dalton, Chartrand and Finkel provide very interesting evidence that the mere presence of another individual who anti-mimics (that is, adopts different postures,

mannerisms or expressions) can lead to major depletion of self-regulatory resources, leading to loss of self-control and poor performance on various tasks.

The first paper by Vohs, Mead, Schmeichel and Bruyneel shows that people who were depleted of resources via a variety of novel tasks reported more intense positive and negative emotions. For example, participants who had to suppress their thoughts (not think of a white bear) reported more intense positive emotions while watching a comedic film. In a second study, participants in a Stroop task involving words and colors that were inconsistent with each other (depletion condition) displayed more polarized evaluations of subsequently presented emotional pictures compared to those in a control condition with consistent words and colors. In another study, participants, after completing a depletion task, were asked to keep their hand in freezing water for as long as they could. Depleted participants were less able to keep their hands in the water and reported more intense pain compared to a control condition. Viewed together with prior research on self-regulation and depletion, this paper makes a case that failures at self-control due to depletion may be driven by these intense emotional states.

The second paper by Ramanathan and Menon focuses on the dynamic experience of approach/avoidance motivation as people are faced with temptations. After establishing in a first study that there are significant differences in reward sensitivity between people classified as impulsive or prudent and in response latencies to the measures of impulsivity, the authors ran a second study in which half the participants pre-classified as impulsive or prudent were primed with a hedonic goal. They were then shown a tray filled with cookies and asked to use a joystick continuously over three minutes to indicate how much they felt drawn towards the items on the tray or how much they felt like avoiding it. The dynamic traces of the like-dislike reactions showed interesting differences for impulsives and prudents, depending on whether they were

primed with the hedonic goal or not. While both impulsive and prudent people who were primed with a hedonic goal showed an immediate spike in their evaluations of the cookies, the former showed greater ambivalence over time that resolved in favor of an increasing desire for the cookies. The latter however showed a marked decline in evaluations of the cookies over time, to the extent that they rated the cookies more negatively compared to the baseline condition, suggesting a rebound effect.

The final paper by Dalton, Chartrand and Finkel merges the literature on social contagion and self-regulation and shows the powerful influences that social context can have on self-regulatory behavior. The authors present four studies in which they show the effect of the presence of another individual who engages in mimicry or anti-mimicry of the person's gestures and postures. They argue that such disruptive anti-mimicry disturbs non-conscious social coordination processes, consumes resources and impairs subsequent regulatory performance. In the first study, they show that anti-mimicry leads to impaired fine motor control relative to mimicry. In a second study, they show that even among already ego-depleted individuals, anti-mimicry could lead to lower persistence on studying for a test, compared to mimicry. In their third study, they provide evidence of the process at play by showing that anti-mimicry causes participants to dislike the task and the interaction partner and that this dislike mediates the lower self-regulation, this time in the domain of eating behavior. They investigate moderation in their fourth study, and their findings suggest that anti-mimicry leads to lower self-regulation due to expectancies of the interaction being disconfirmed.

All three papers in this session focus on failure in self-regulation, but show how different processes may be at play. Failures at self-regulation may be due to two causes – an under-active inhibitory mechanism or an overactive approach mechanism. Two of the papers (Vohs et al.;



Dalton et al.) examine the reduced cognitive resources explanation, suggesting that failures are caused by the inability of the individual to bring will-power or regulatory resources to bear on the task on hand. A third paper (Ramanathan and Menon) approaches this from a different angle suggesting that sometimes failures can be caused by the increasing surgency of hedonic goals that can potentially over-ride control mechanisms. Together, the three papers look at different domains of self-regulation, thereby attesting to the generality of the findings presented.

### *Audience*

We expect this session to be of interest to at least two groups of people: (a) researchers in the domains of non-conscious processes, decision-making and goal theory, and (b) researchers and practitioners in advertising and motivation research. From the point of view of practitioners, the findings have implications for the design of advertising appeals for influencing consumer goals and hence behavior.

### *Summary*

We feel that the papers fully express the spirit of SCP Special Sessions for several reasons. While all three papers address issues relating to self-regulation, each provides distinct conceptual and methodological contributions. Apart from providing evidence of the nature of cognitive, affective and motivational processes involved in self-regulation, they show that these processes may be linked. Given its inter-disciplinary nature, this session should appeal to a broad cross-section of SCP members. Most importantly, the proposed session provides rich insights in a domain that has enormous practical import.

## Abstracts

### **SELF-REGULATORY RESOURCE DEPLETION MAKES PEOPLE MORE EXTREME IN THEIR EMOTIONS AND JUDGMENTS: A POSSIBLE MECHANISM FOR EGO-DEPLETION**

Kathleen Vohs, University of Minnesota  
Nicole Mead, Florida State University  
Brandon Schmeichel, Texas A&M University  
Sabrina Bruyneel, Katholik University Leuven

Self-regulation has been studied from a variety of perspectives (e.g., Carver and Scheier 1981; Hoch and Loewenstein, 1991) but virtually all of this research finds that people have a difficult time (at best) controlling impulses and overriding desires in order to reach goals. Reviews of the literature have suggested that self-regulation can be viewed as operating off a limited resource (e.g., Baumeister, Bratslavsky, Muraven and Tice 1998; Vohs and Schmeichel 2003). It is not yet known, however, why people who have fewer self-regulatory resources fail at subsequent attempts at self-regulation, except to say that they have fewer resources to put to the task. The current research examined changes in the subjective feeling-state of participants who were depleted versus those who were not depleted, as a possible explanation for decrements in self-regulation after earlier self-control. Results from five experiments support this assertion.

In Study 1, participants first engaged in a thought-listing task - those in the depletion condition were given thought suppression instructions (do not to think of a white bear), whereas participants in the control group were told they could think of whatever they wished, including thoughts about a white bear. Later, all participants watched a comedic film. Results of mood after the film indicated that participants in the thought suppression condition subsequently felt more positive emotions and less negative emotions as compared to participants in the control condition. Also, participants in the depletion condition reported deeper emotions while watching the film compared to participants in the control group.

Study 2 provided further support for the hypothesis that depleting self-regulatory resources leads people to become more polarized emotionally. The Stroop color-listing task was used to manipulate self-control. Participants in the depletion condition were asked to read the color of ink that the word was printed in, with ink colors and names of color being inconsistent (the word “red” written in blue ink), whereas participants in the no depletion condition were asked to name the color of ink that four XXXXs were printed in. Results showed that participants in the depletion condition had more extreme ratings of highly-emotional pictures than did participants in the no depletion condition.

In Study 3, participants in the depletion condition were asked to read aloud boring, technical text but to do so with exaggerated gestures and high enthusiasm, whereas participants in the no depletion condition read aloud the same passage without further instructions. Next, participants rated 20 Chinese characters on their attractiveness. As predicted, participants in the depletion condition rated the Chinese characters more extremely than did participants in the no depletion condition.

Study 4 tested whether multiple types of judgments were affected by self-regulatory resource depletion or whether only those relating to emotions were affected. We employed two different dependent measures (within-subjects; counterbalanced): ratings of Arabic letters as to their likeability (emotionally-laden judgments) versus sensory-based judgments of products, such as “How heavy is this glass?” To manipulate self-regulatory resources, participants were randomly assigned to complete either an easy or difficult version of a proofreading task. As expected, only judgments of likeability were affected by depletion, whereas ratings of sensory aspects of products were unaffected. Participants in the difficult proofreading group showed significantly more variability in their ratings of likeability of Arabic characters (i.e., they were

more extreme) than participants who completed the easier version of the proofreading task. No differences were found in variance of ratings for sensory perceptions between groups.

In Study 5, participants in the depletion condition read aloud boring text in an animated fashion (as in Study 3), whereas no-depletion participants read aloud without instructions. All participants then submersed their arms in freezing water for as long as they could. This cold pressor task allowed for measurements of pain sensations and self-control. Results revealed that participants in the depletion group were less able to keep their arms in frigid water as compared to no-depletion participants and reported more intense pain. Mediation analyses suggest reduced self-regulation is due in part to reports of increased pain.

In sum, the current research suggests that being in a state of resource depletion from earlier expenditures of self-control changes people's subjective feelings states. They experience highs as higher and lows as lower. This change in emotionality likely makes it significantly more difficult to regulate, with the result being less control over oneself.

## MOMENT-TO-MOMENT PURSUIT OF HEDONIC GOALS

Suresh Ramanathan, University of Chicago

Geeta Menon, New York University

There is considerable research on self-control and failures thereof, examining these occurrences from a variety of different perspectives, such as spontaneous hedonic or low-road affect (Giner-Sorolla 1999; Shiv and Fedorikhin 1999, 2002), ego-depletion (Baumeister, Bratslavsky, Muraven and Tice 1998; Vohs and Schmeichel 2003), and goal conflict (Fishbach and Kruglanski 2002; Ramanathan and Menon 2004). One area that has not been studied is the dynamic nature of the process of exerting self-control or giving in to temptations. Specifically, what happens to us on a moment-to-moment basis as we see a tempting stimulus?

Our first goal was to show that there are differences between impulsive and prudent people in terms of reward sensitivity and chronicity of such reward-seeking. We used a task called the CARROT (Card Arranging Reward Responsiveness Objective Task, Powell et al. 1996) to show these differences. This task requires participants to sort a stack of 100 cards, each of which has a five digit number printed on it, into three piles. Each five digit number has one of the numbers 1, 2 or 3 occurring in it at any position, and the participant is required to sort the stack into piles that contain the digit 1, the digit 2 or the digit 3. This task is performed over three trials, with the middle trial being rewarded (20 cents for every five cards). People classified as impulsive on a standard impulsivity scale sorted significantly more cards on the rewarded trial compared to the average of the non-rewarded trials. Response latencies to measures of impulsiveness were significantly smaller for those classified as impulsive, suggesting that these self-ratings were chronically accessible.

Study 2 focused on how differences in these chronic hedonic goals might manifest in

moment-to-moment reactions to hedonic or healthy stimuli. Participants completed a scrambled sentence task that either primed a hedonic goal or was neutral in content. Following this, they were presented with a tray filled with cookies and were asked to look at the items while using the joystick continuously to indicate exactly how they felt at the precise moment towards the items on the tray (by pulling it towards themselves if they felt drawn towards the items at the moment and pushing it away if they felt like avoiding it). Movements of the joystick were captured every 0.1 seconds over three minutes by the program, and averaged to 1 sec.

The stream of data showed three interesting results. First, impulsive people primed with the hedonic goal showed an immediate spike in their approach reactions to cookies that lasted 40 – 50 seconds. This was reflected in a high positive velocity and acceleration in evaluations. This then gave way to an intensely ambivalent state characterized by sharp ups and downs. This period showed the highest variance in feelings. Around 100 seconds, this state of ambivalence was replaced by a steadily increasing approach reaction indicating that an unsatiated hedonic goal was still at play. Second, in line with the findings of Fishbach, Friedman and Kruglanski (2003), prudent people who were not primed with the hedonic goal showed an immediate spike downwards (as reflected in a high negative velocity/acceleration) after seeing the cookies that lasted about 30 seconds and then gave way to a stable, unconflicted, low variance reaction over time. On the other hand, prudent people primed with the hedonic goal and presented with cookies showed a sharp increase in the approach reactions that lasted approximately 60 seconds and then decreased sharply to below baseline levels as obtained in the non-primed condition.

These data suggest that there are differences between impulsive and prudent people in

terms of how they dynamically handle the fight between willpower and desire. Hedonic goals, whether chronic or primed, lead to spontaneous approach reactions towards tempting stimuli among both impulsive and prudent people in the immediate term. However, the time course of these reactions is markedly different over a longer window. A key characteristic of goal conflict is ambivalence – this was clearly seen among impulsive people soon after they got over their immediate affective reaction. They managed this ambivalence by choosing the unsatiated hedonic goal that continued to gather strength. Another possible explanation is that these individuals were particularly ego-depleted due to the ambivalence. However, the fact that prudent people who were primed with the hedonic goal managed their goal conflict by showing a sharp rebound effect in evaluating the cookies significantly more negatively relative to the baseline suggests that the results were not due to a generalized ego-depletion.

**THE EGO-DEPLETED CHAMELEON: SELF-REGULATORY CONSEQUENCES FOR SOCIAL  
ASYNCHRONY**

Amy N. Dalton, Duke University  
Tanya L. Chartrand, Duke University  
Eli J. Finkel, Northwestern University

We propose that subtle behavioral mimicry, though nonconscious and unintentional, is a bedrock component of regulatory functioning. Disrupting mimicry can disturb nonconscious social coordination processes, consume resources and impair subsequent regulatory performance. In four experiments, participants interact with a confederate who either mimics or antimimics (adopts different) physical postures, mannerisms, and gestures. In Experiment 1, we show that interactions involving mimicry or antimimicry differentially impact regulatory depletion, whereby participants who are antimimicked exhibit deteriorated fine motor control compared to participants who are mimicked. In Experiment 2, we generalize the effect to a different self-regulatory task (persistence studying for a test) and show that our mimicry manipulation can account for unique variance even among participants who previously engaged in a depleting affect regulation task. Experiment 3 shifts to the domain of eating behavior and adds a control condition in which participants cannot see their interaction partners (and behavioral mimicry cannot occur). Here, we find that the self-regulatory consequences of mimicry are driven by a depleting effect of antimimicry, and not a replenishing effect of mimicry. We also discover the effect to be mediated by liking of the social interaction: participants who are antimimicked dislike the task and their interaction partner and go on to exhibit regulatory depletion (in this case, by over-eating). Experiment 4 illustrates moderation by participant race. Antimimicry interactions impair self-regulation (assessed via Stroop Task interference) in same-race interactions, but actually produce the opposite effect in cross-race interactions. The results of this last experiment suggest that depletion in these studies might stem from expectations about whether or not



mimicry should occur in a social interaction, and is not related to antimimicry interactions being negatively valenced.

**SUNDAY, FEB 12 AFTERNOON SESSIONS**

**Sunday 1:30pm – 2:45pm: Session 10 (1 Special Session and 2 Competitive Paper Sessions)**

**[Special Session 10A](#)**

**Constrained Preferences: A Look into the Preference/Choice Inconsistency**

*Chair: Goodman Joseph, The University of Texas at Austin*

*Discussant: Andrew Gershoff, University of Michigan, Ann Arbor.*

I Want It Even Though I Do Not Like It: Preference for Familiar but Less Liked Music

*Morgan K. Ward, The University of Texas at Austin,*

*Joseph K. Goodman, The University of Texas at Austin,*

*Julie R. Irwin, The University of Texas at Austin.*

Dissonance Reduction Deferred: Constraining Preference Shifts after Choice

*Katherine A. Burson, University of Michigan,*

*Richard P. Larrick, Duke University.*

Form vs. Function: Preference Reversals in Choice vs. Willingness-to-Pay

*Ravi Chitturi, Lehigh University,*

*Raj Raghunathan, The University of Texas at Austin,*

*Vijay Mahajan, The University of Texas at Austin.*

**Competitive Paper Session 10B (Spirit Dining Room)**

**Pricing and Branding**

**[Why Coastal Dwellers May Prefer Tide: Effects of Indirect Environmental Cues on Evaluation and Choice](#)**

*Berger Jonah, Stanford University*

*Fitzsimons Grainne, University of Waterloo*

**[Partitioning or Bundling: An Investigation of the Boundary Condition](#)**

*Sheng Shibin, Adelphi University*

*Bao Yeqing, University of Alabama in Huntsville*

*Pan Yue, University of Dayton*

**[Neural Correlates of Brand Choice under Uncertainty: The Role of Brand Trust](#)**

*Plassmann Hilke, Stanford University, Westfalian Wilhelms-University of Munster*

*Kenning Peter, Alhert Dieter, Westfalian Wilhelms-University of Munster*

[Implicit Priming as a Competitive Promotional Strategy for Challenger Brands](#)

*Barney Pacheco, University of the West Indies*

*Dipankar Chakravarti, University of Colorado, Boulder*

**Competitive Paper Session 10C (Spirit Dining Room)**

**Conversations With the Consumer: Media Images, Word-of-Mouth and Other Channels**

[The Mirror Has Two Faces: Positive and Negative Media Image Effects](#)

*Mandel Naomi, Arizona State University*

*Smeesters Dirk, Tilburg University*

[Why It is Particularly Important to Please Your Female Customers: How Sex Differences in Emotions & Communication Style Influence the Likelihood, Intensity, & Effectiveness of Word-of-Mouth Communication](#)

*Strahilevitz Michal, University of Arizona*

[Word-of-Mouth Communication: A Closer Look at the Interaction](#)

*Wetzer Inge M, Tilburg University*

*Zeelenberg Marcel, Tilburg University*

*Pieters Rik, Tilburg University*

[Do Consumers Consider Off-line Channels to be Interactive and Should Researchers Do the Same?](#)

*Florenthal Bela, Butler University*

*Ross William T. Jr., Pennsylvania State University*

**2:50pm – 4:05pm: Session 11 (Competitive/Working Paper Sessions)**

**Session 11A (Spirit Dining Room)**

**Me versus Them: Role of Groups in Consumer Decisions**

[Reasons to "Me" or reasons to "Us:" The Interaction between Self-Construal and a Search for Reasons and its Impact on Consumer's Judgments](#)

*Torelli Carlos, University of Illinois at Urbana-Champaign*

[Cross-Cultural Consumer Preference for Information Sources: A Study between the United States and Turkey](#)

*Lerzan M. Aksoy, Koc University*

*Kiersten Maryott,, Virginia Commonwealth University*

[Assimilation and contrast effects of priming on product choices for oneself versus for other person](#)

*Park Jongwon, Kim Kyeongheui, Kwak Junsik, Korea University*

[A Proposed In- and Out-Group Model of Adolescent Daughter-Mother Consumption Interactions](#)

*Shoham Aviv, Ruvio Ayalla, Gavish Yossi, University of Haifa*

**Session 11B (Spirit Dining Room)**

**Affect and Self-Control in Decision Making**

[Effects of Social Consumption on Individual Choice: Individual and Social Origins of Self-Control](#)

*Barlas Sema, McGill University*

*Bodur H. Onur, Concordia University*

*Huang Lei, McGill University*

[Is Goal Activation Enough? Implications for Conscious Self-Control Processes](#)

*Walsh, Darlene, Mitchell Andrew, University of Toronto*

[Not all Desires are Created Equal: The Motivational Role of Consumption Urges as Automatically Triggered Appetitive Desires](#)

*Aguirre-Rodriguez Alexandra, University of Illinois at Urbana-Champaign*

[Affect Integration in a Simultaneous Presentation Context](#)

*Pracejus John, University of Alberta*

**Session 12 (Disco Bar – During Cocktail hour)**

**Working Paper Session**

[When Does Persuasion Knowledge Influence Brand Evaluations?](#)

*Kelly Main, Mei-Ling Wei, Eileen Fischer, York University*

[Utility Blindness: Why Do We Fall For The Deal](#)

*Maggie Wenjing Liu and Dilip Soman, University of Toronto*

[A Snapshot-Bin Model of Time Perception](#)

*Hee Kyung Ahn, Maggie Wenjing Liu and Dilip Soman, University of Toronto*

[Bring the Future in Front of the Mind's Eye: Exploring the Moderating Role of Ad Evoked Imagery Processing](#)

*Myers Jun, Langteau Rita, Cho Soyoen, University of Minnesota-Twin Cities*

[College Student Smoking: The Importance of Situational Factors](#)

*Karen Smith, Gail M. Zank, Mary Ann Stutts, Texas State University- San Marcos*

[Effectiveness of Different Self-Esteem Appeals in Advertising: Boosting, Confirming, or Challenging Consumers' Self-Esteem](#)

*Nilufer Z. Aydinoglu, University of Michigan  
Gurhan-Canli Zeynap, Koc University  
Klein Jill, INSEAD*

[Temporal Instability in Consumers' Acquisition Intentions for Really New Products](#)

*David Alexander, John G. Lynch, Jr., Duke University  
Qing Wang, University of Warwick*

[The Influences of Task and Information Environment Characteristics on Consumer Search Behavior in an Online Setting](#)

*Ying Jiang, Girish Punj, University of Connecticut*

[The Mere Mention of Money and the Self](#)

*Kathleen Vohs, University of Minnesota  
Miranda Selinger, University of British Columbia  
Nicole Mead, Florida State University*

[The Effect of Performance and Tolerance on Consumer Satisfaction: An Experimental Study](#)

*Zhang Lingling, Chow Clement, University of Macau  
Nasol Ramon L., Consultant Holdings Inc.*

**SUNDAY, FEB 12, AFTERNOON SESSIONS: ABSTRACTS/PAPERS**

**Sunday 1:30pm – 2:45pm: Session 10 (2 Special Sessions and 1 Competitive Session)**

**Special Session 10A**

**Constrained Preferences: A Look into the Preference/Choice Inconsistency**

*Chair: Goodman Joseph, The University of Texas at Austin*

*Discussant: Andrew Gershoff, University of Michigan, Ann Arbor.*

I Want It Even Though I Do Not Like It: Preference for Familiar but Less Liked Music

*Morgan K. Ward; Joseph K. Goodman; Julie R. Irwin, The University of Texas at Austin*

Dissonance Reduction Deferred: Constraining Preference Shifts after Choice

*Katherine A. Burson, University of Michigan,*

*Richard P. Larrick, Duke University.*

Form vs. Function: Preference Reversals in Choice vs. Willingness-to-Pay

*Ravi Chitturi, Lehigh University,*

*Raj Raghunathan, The University of Texas at Austin,*

*Vijay Mahajan, The University of Texas at Austin.*



**Special Session Proposal:**  
**Constrained preferences: A look into the preference/choice inconsistency.**  
*Discussant: Andrew Gershoff*

***Participants:***

*Paper 1:*

*Morgan K. Ward (The University of Texas at Austin)*  
*Joseph K. Goodman (The University of Texas at Austin)*  
*Julie R. Irwin (The University of Texas at Austin)*

*Paper 2:*

*Katherine A. Burson (University of Michigan)*  
*Richard P. Larrick (Duke University)*

*Paper 3:*

*Ravi Chitturi (Lehigh University),*  
*Raj Raghunathan (The University of Texas at Austin)*  
*Vijay Mahajan (The University of Texas at Austin)*

**Session Abstract**

This special session investigates new developments in the area of choice and preference construction. The three papers explore how consumer choice differs from consumers' expressed preferences. That is, how does their revealed preference (i.e., what they actually choose) differ from what they say they prefer? The three papers identify distinct mechanisms for this discrepancy, as described below.

The first paper in our session investigates how automatic processes, in this case mere exposure, can impact choice independent of expressed preferences for entertainment stimuli (i.e., songs and movie actors). They show that choices are influenced by mere exposure independent of effects on expressed preference; even controlling for expressed preference, mere exposure influences choice. In other words, for some respondents, there is a reversal between expressed and revealed preference (i.e., choice): they say they do not like a good, but they choose it

anyway if they have been previously exposed to it. The authors find that several motives, including regret avoidance, contribute to choice, but, for their stimuli, mere exposure is the strongest driver of choice independent of expressed preferences.

The second paper explores how dissonance reduction can reduce the consistency between expressed preferences and actual choice. In particular, the work addresses the role of anticipated outcome feedback in a choice process of similarly preferred options with uncertain outcomes. The authors show that anticipated regret stemming from anticipated feedback about both chosen and unchosen options constrains the extent to which expressed preferences differ from choices.

The third paper specifically investigates what types of attributes may lead to differences in one kind of expressed preference (willingness-to-pay) versus choice. The authors find that high uncertainty leads consumers to choose more functionally superior products compared to aesthetically superior products, but that expressed willingness-to-pay preferences show the opposite effect.

### **I Want It Even Though I Do Not Like It: Preference for Familiar but Less Liked Music**

*Morgan K. Ward (The University of Texas at Austin)*  
*Joseph K. Goodman (The University of Texas at Austin)*  
*Julie R. Irwin (The University of Texas at Austin)*

Many radio stations play the same songs over and over again, with little willingness to add new songs to the playlist, despite voiced criticism. Station managers argue that they are simply giving the listeners what they want to hear. We investigate this radio paradigm to understand what is driving this discrepancy between voiced preference and actual choice.

Presenting 24 songs from 12 artists (one familiar and one unfamiliar), and 22 famous actors to participants, we show that people do indeed choose to listen to songs, and see actors in movies, based on two factors: their preference (or “liking”) and their familiarity with the song or actor. Interestingly, we find that the effect of familiarity on choice remains significant when we control for the effects of preference on choice. That is, participants sometimes chose a song they liked less than the other option, just because the chosen song was familiar.

In a second study we control for liking across songs based on pretests and show that participants choose playlists of songs that they are familiar with despite lower preferences for these songs. Our last study tested whether the results could be explained by anticipated regret and/or social perceptions (or “coolness,” which may drive people to indicate they do not like familiar songs even though they do actually like them). Using personal computers where participants actually listened to their choices on individual headphones, participants made choices first and then indicated familiarity and liking, as well as how much they may regret their choice and how “cool” they thought each song was. Though regret did affect choice, indicating the presence of some uncertainty about the options, we find that familiarity significantly predicts choice when controlling for the effects of liking, regret, and coolness.

### **Dissonance Reduction Deferred: Constraining Preference Shifts after Choice**

*Katherine A. Burson (University of Michigan)*  
*Richard P. Larrick (Duke University)*

Anticipation of buyer’s remorse or regret often shapes consumer behavior under uncertainty. After making a purchase, for instance, consumers may actively avoid relevant information about the quality of their decision (such as driving the car one didn’t end up buying).

Such behavior has been attributed to dissonance reduction—the process by which consumers re-align their preferences to correspond with their actions. In this paper, we explore the extent to which preference shifts can be constrained by the anticipation of feedback about unchosen options.

In a common dissonance reduction paradigm, participants must choose between two alternatives (e.g. music albums) that are about equally preferred. After choosing one option from this pair, participants reliably report that they prefer the chosen option *more* and the rejected option *less* than before the choice (“spreading of the alternatives”). We argue that such preference shifts depend on post-choice uncertainty about true decision quality because consumers are largely protected from regretting their choice. Therefore, if uncertainty after a choice is eliminated via feedback, then anticipation of regret will moderate the preference/choice inconsistency and prevent consumers from re-ordering their preferences in light of their choice.

Indeed, we show that participants who anticipate only feedback about their chosen alternative shift their preferences in a defensive way. Specifically, they triple the original perceived difference between the two options. However, those who anticipate feedback on *both* alternatives cannot shift their preferences and there is no difference between how they originally rate the options and how they rate them after their choice. In other words, participants who anticipate feedback about *both* the chosen and unchosen option are prevented from spreading the alternatives. The results of this experiment show that consumers can get stuck with their buyer’s remorse if they expect uncertainty about their choice to be eliminated in the future.

### **Form vs. Function: Preference Reversals in Choice vs. Willingness-to-Pay**

*Ravi Chitturi (Lehigh University),  
Raj Raghunathan (The University of Texas at Austin)  
Vijay Mahajan (The University of Texas at Austin)*

Product designs are bundles of utilitarian (function) and hedonic (form) features. In a series of four studies, we show and explain how consumers exhibit preference reversals when choosing between aesthetically vs. functionally superior products. We test for this preference reversal phenomenon under different levels of uncertainty and show that when uncertainty is reduced, consumer preferences shift from seeking higher functionality to seeking higher hedonics. The findings show that consumers rely on different aspects of the product depending on the decision task and risk level. Specifically, results show that (1) when consumers are uncertain about their product needs, they tend to choose functionally superior products, but would pay more for aesthetically superior ones, (2) when uncertainty is reduced, consumer preferences shift from seeking higher functionality to seeking higher hedonics, and (3) in general, consumers who choose an aesthetically superior product are willing to pay more than those who choose a functionally superior one.

## **Competitive Paper Session 10B (Spirit Dining Room)**

### **Pricing and Branding**

Why Coastal Dwellers May Prefer Tide: Effects of Indirect Environmental Cues on Evaluation and Choice

*Berger Jonah, Stanford University*

*Fitzsimons Grainne, University of Waterloo*

## Abstract

Little empirical research has examined the implicit effects of environmental cues on consumer behavior. While direct product cues (e.g., advertisements and end of aisle displays) may increase evaluation and choice, it remains to be seen whether similar effects can be produced by indirect cues that consumers encounter in everyday environments. Across three experiments based in real-world consumer environments, we find that the prevalence of indirect environmental cues for a product can influence product accessibility, evaluation, and choice. A pilot study finds that products are more accessible during periods in which the environment contains more perceptual cues to those products. In Experiment 1, we examine the effects of newly-constructed links between products and environmental cues and demonstrate that consumers evaluate products more favorably when consumer environments contain more semantic cues to those products. Experiment 2 finds that consumers are more likely to choose products when consumer environments contain more semantic cues to those products. The results provide strong evidence for the existence of “indirect” priming effects on consumer judgment and decision-making, providing support for the importance of real-world environmental cues in consumer behavior.

## WHY COASTAL DWELLERS MAY PREFER TIDE:

### HOW INDIRECT ENVIRONMENTAL CUES CAN INFLUENCE EVALUATION AND CHOICE

On July 4th, 1997, NASA landed the Pathfinder spacecraft on the surface of Mars. This “Mission to Mars” captured media attention worldwide over the course of the following months. During this period, candy bar maker Mars Inc. noticed a rather unusual increase in sales (White 1997). Though the Mars Bar takes its name from the company founder and not from the Earth’s neighboring planet, consumers apparently responded to news about the planet Mars by purchasing more Mars bars. This was a lucky turn of events for the candy bar company, to be sure, but what does it mean for our understanding of consumer choice?

We do know from past research that evaluation increases with exposure (e.g., Zajonc 1968) and that increased exposure, via advertising or end of aisle displays (e.g., Bemmarot and Mouchoux 1991) positively impacts product evaluation and choice. This repeated exposure to products appears to alter consumer decision-making; for example, the more consumers see Tide (in ads, etc.), the more they will like and purchase Tide. But what about repeated exposure to indirectly linked cues? Is it the case that the more consumers see waves on the beach, the more they will like and purchase Tide?

In this paper, we examine how incidental exposure to features of the everyday environment – like newspaper headlines – can influence product evaluation and choice. We hypothesize that the more consumers encounter indirect environmental cues to a given product, the better they will like the product, and the more they will want to purchase it. Specifically, we suggest exposure to “linked” environmental cues will spread and repeatedly “prime” the product representation in memory (Collins and Loftus 1975). Furthermore, we hypothesize that this



frequent activation of the product representation, in turn, will lead to increases in product evaluation and choice (see Lee and Labroo 2004; Nedungadi 1990).

Importantly, our focus is on indirect, rather than direct cues. For these effects to occur, the environmental cue and the product must be cognitively linked or associated in memory, meaning that when the cue is encountered, the product representation is automatically activated (Dijksterhuis and Bargh 2001; Higgins 1996). The link can be “perceptual,” meaning that the cue and the product share some physical properties, or “conceptual,” meaning that the cue and the product share semantic associations or meanings (Lee and Labroo 2004). This research relates to recent work on the effects of prior product exposure on brand evaluations and choice (Lee 2002; Lee and Labroo 2004), as well as recent theorizing about the role of priming and subtle environmental influences in consumer decision-making (Bargh 2002; Dijksterhuis, Smith, van Baaren and Wigboldus 2005). The current research extends its reaches outside of the laboratory, aiming to examine how cues in people’s actual everyday environments can affect their subsequent product evaluations and choices.

## PILOT STUDY

We first set out to simply establish that real-world environmental cues can activate – or make more accessible – related product representations. The pilot study examined the accessibility of various consumer products at two times: The day before Halloween and one week later. Participants (N = 144) were approached outside a local grocery store and completed a “Quick Thinking Survey” where they listed “the first things that come to your mind” in the categories of candy/chocolate and soda. This design takes advantage of the temporary difference in the prevalence of cues related to the color “orange” in the everyday environment. Right before the

holiday, pumpkins adorn the neighborhoods, and stores and advertisements prominently feature orange displays, but starting November 1st, many of those orange cues disappear. If the prevalence of real-world environmental cues can influence product accessibility, then products that are associated with the color “orange” should be relatively more accessible before Halloween than one week later. Thus, we hypothesize that orange-associated products such as Reese’s (a product whose logo and packaging are largely orange in color) and orange-colored products (e.g., Sunkist, Orange Crush, etc) will be more accessible the day before Halloween than one week later.

As predicted, orange-associated products were relatively more accessible in consumer minds when orange was more prevalent in the environment. For the candy/chocolate category, Reese’s was mentioned by more participants the day before Halloween than one week later,  $\chi^2(1, N = 144) = 3.97, p = .05$ . While 54% mentioned the product the day before Halloween, only 30% of consumers mentioned the product a week later. Similarly, for the soda category, orange sodas (e.g., Orange Crush, Sunkist) were mentioned by more participants the day before Halloween than they were a week later,  $\chi^2(1, N = 143) = 4.37, p < .04$ . While 47% of consumers mentioned orange sodas the day before Halloween, only 30% of consumers mentioned them a week later. No other orange products were generated by the participants.

We also examined the ordering of products within the consumer-generated lists. As predicted, Reese’s was more accessible – that is, it appeared sooner on consumer lists – the day before Halloween ( $M = 6.00$ ), as compared to a week later ( $M = 7.18$ ),  $t(142) = 2.34, p < .02$ . The same pattern of results was found for orange sodas ( $M = 5.84$  vs.  $6.21$ ) though this effect did not reach significance,  $t(141) = 1.49, p = .14$ .

These findings cannot be explained by patterns of holiday consumption. Outside of color, Reese's is not uniquely linked with Halloween: A separate set of respondents ( $N = 30$ ) did not list Reese's more frequently than other types of candy (e.g. Snickers, Kit Kat, or Hershey's) when asked what candy they associated with Halloween ( $ps > .20$ ). Furthermore, other chocolate products that were highly associated with Halloween (Snickers and Kit Kat) showed no significant boost in accessibility due to the holiday  $\chi^2(1, N = 144) < 1.00, ps > .20$ . Further, sodas have no relation to Halloween outside of the color orange.

## EXPERIMENT 1

The pilot study provided empirical evidence that real-world environmental cues can activate cognitively related products in memory, leading them to become more accessible. Building on these findings, we turn to examine whether consumers who are immersed in environments containing indirect cues for a product will evaluate that product more favorably. Furthermore, while the pilot study examined the effects of a pre-existing cognitive link between a product and an environmental cue (the color orange in the displays and in the products), in the following studies, we use product slogans to create a novel link between a product and an environmental cue. To do so, we will repeatedly expose participants to a slogan linking the target product to an environmental cue.

### Method

Participants (students,  $N = 60$ , 62% female) came into the lab for an "Advertising Study" and learned a slogan linking the target product (a new digital music player, ePlay) to one of two environmental cues. They were told the experimenters wanted their feedback on an upcoming

advertising campaign and engaged in a number of tasks designed to induce rehearsal of the products slogan (in all, they were exposed to the slogan 15 times during the session). Half received a slogan linking the product to dining hall trays (“Dinner is carried by a tray, music is carried by ePlay”) while the other half received a slogan linking the product to luggage (“Luggage carries your gear, ePlay carries what you want to hear”).

We expect that people will like the product more and be more likely to purchase it when cues are more prevalent in their environment. Some of the undergraduate participants ate in dining halls that used trays, while others did not. People who learned the link between the product and trays and live in dining halls that use trays should experience the environmental cue frequently, while those who ate in dining halls that did not use trays should experience the environmental cue less often. Luggage-related cues should be equally prevalent across the two control groups, thus these participants should not show differences in product evaluation. We predict a slogan x dining hall interaction: Participants who eat in dining halls with trays and receive the slogan linking the product to that environmental cue should be exposed to more frequent indirect cues, and consequently, report higher product evaluations.

A week and a half later, participants were contacted via email and completed an online survey of dependent measures, e.g., product evaluation ( $r = .79$ ), purchase likelihood ( $\alpha = .82$ ), and willingness to pay. They also reported how much they needed a digital music player, how much they liked dining hall trays, and how frequently they had seen trays in the past week. Finally, they provided the name of their dorm and whether or not their dining hall used trays.

## Results

*Preliminary Measures.* As expected, participants who ate in dining halls with trays reported seeing trays more frequently ( $M = 6.03$ ) than participants who ate in dining halls without trays ( $M = 1.79$ ),  $t(63) = 12.61$ ,  $p < .001$ . Also as expected, there were no differences in terms of how much participants thought they needed a digital music player ( $ps > .20$ ). There was an unexpected marginal effect of slogan on tray liking,  $F(1, 65) = 3.07$ ,  $p = .09$ , indicating that participants who received the luggage slogan reported liking trays somewhat more ( $M = 4.41$ ) than those who received the tray slogan ( $M = 3.77$ )--but if anything, the direction of this effect should work against our hypothesis.

*Product Evaluations.* A 2 (slogan) x 2 (group) ANOVA examined the effect of slogan and group on product evaluations. There were no main effects of either slogan or group ( $F_s < 1$ ), but as hypothesized, there was a significant slogan x group interaction,  $F(1, 61) = 5.26$ ,  $p < .025$ , Figure 1. Participants who received the tray slogan evaluated the product more favorably if they ate in dorms which did, versus did not, use trays ( $M = 3.75$  vs.  $2.89$ ),  $F(1, 61) = 4.49$ ,  $p < .04$ . There was no corresponding difference for participants who received the luggage slogan ( $p > .20$ ). We also examined differences in the effects of slogans on evaluations within tray and no-tray dining halls. As predicted, participants who ate in dining halls with trays evaluated the product more favorably if they had received the tray slogan rather than the luggage slogan, ( $M = 3.75$  vs.  $2.87$ ),  $F(1, 61) = 5.65$ ,  $p < .02$ . There were no differences due to slogan for participants who ate in dining halls without trays ( $p > .20$ ).

*Absence of Environmental Cueing Control Condition.* As another control, we examined whether these effects would occur in the absence of environmental cueing. A separate set of respondents ( $N = 38$ ), half of whom ate in dining halls that used trays, completed the tray slogan condition

but filled out the dependent measures right away. As expected, participants who ate in dining halls with trays reported seeing trays more frequently ( $M = 6.57$  vs.  $2.06$ ),  $t(37) = 10.07$ ,  $p < .001$ , but there were no differences on any other dependent measures ( $ps > .20$ ).

## Discussion

Our results demonstrate that the prevalence of indirect environmental cues can influence product evaluation. A product was linked to one of two environmental cues: one that was differentially present, and one that not differentially present, across the tenure of the experiment. Participants evaluated the product more favorably (and reported being more likely to purchase it) when cues indirectly linked to the product were more prevalent in their environment.

The experimental design also allows for the testing of alternative explanations. There was no corresponding difference in product evaluation when the product was linked to a cue that was not differentially prevalent in different environments (i.e., luggage). Further, there were no differences in product evaluation in the absence of indirect environmental cueing (i.e., for people who completed the dependent measures directly after learning the slogan).

## EXPERIMENT 2

Experiments 1 provided evidence that real world environments can influence product evaluations and in Experiment 2, we examine whether these effects would also hold for actual choice. To extend our research to marketing behavioral change campaigns, we chose a product whose consumption has positive health benefits, namely fruits and vegetables. Might we be able to increase fruit and vegetable consumption by using environmental cues?

In Experiment 2, we examine whether students would eat more fruits and vegetables if a slogan reminding them to do so was linked to an environmental cue (i.e., a dining hall tray).

## Method

Participants (N = 59, students, 56% female), half of which ate in dining halls that used trays, signed up for a group of studies entitled “Attitudes and Eating Habits” in which they recorded (using daily web surveys) what they ate for lunch and dinner for a two week period.

Halfway through that period, participants came to the laboratory for what seemed like an unrelated “Advertising Study,” similar to the one used in Experiment 1 (though the slogans now revolved around fruit and vegetable consumption). They were told the National Board for Better Health was about to release “a new campaign about eating healthier that will be targeted to college students like yourself, and they want feedback regarding their advertising campaign.”

After reading an in-depth description of the campaign, participants received the campaign slogan and went through the same exercises used in the previous studies to increase slogan rehearsal.

Two-thirds of the participants received a slogan that should be differentially cued by the environment depending on whether people ate in dining halls that used trays (target slogan: “Each and every dining hall tray, needs 5 fruits and veggies a day”). As an additional control, the other third of the participants received a slogan that was perceived equally favorably in pre-tests, but would not be cued by the environment (competing slogan: “Live the healthy way, eat fruits and veggies a day”). Thus there were 3 conditions: tray slogan where participants ate in dining halls with trays (cued slogan), tray slogan where participants ate in dining halls without trays (same slogan not cued), and a competing slogan.

At the end of the two weeks, participants completed a number of final measures: How positively they felt about the trays that carried their food, how frequently they had seen trays in the past

week (both on 7-point scales), their gender, the name of the dining hall in which they ate most of their meals, and whether this dining hall used trays.

## Results

*Preliminary Analyses.* Using the National Cancer Institute serving size guidelines, a coder (blind to participants' condition) recorded the number of servings of fruits and vegetables each participant ate each day. This was then averaged to create a consumption index for each participant prior to, and following, the manipulation.

As expected, participants who ate in dining halls which used trays reported seeing trays more frequently than participants whose dining halls did not use trays ( $M = 5.89$  vs.  $1.42$ ),  $t(57) = 13.02$ ,  $p < .001$ . There were no differences in tray liking across the conditions,  $F(1, 58) < 1$ . Because gender has been shown to have a significant impact on eating behaviors (Roos, Lahelma, Virtanen, Prattala, and Pietinen 1998) our main analysis included gender as a covariate. Thus, analyses are based on a 2 (week) x 3 (condition) mixed ANCOVA.

*Fruit and Vegetable Consumption.* There were no main effects of week or condition ( $ps > .20$ ), but as predicted, there was a significant week x condition interaction,  $F(2,55) = 3.14$ ,  $p = .05$  (Figure 2). There was a significantly greater change in consumption for the cued condition than for either the same slogan not cued condition,  $F(1, 55) = 4.02$ ,  $p < .05$ , or the competing slogan condition  $F(1, 55) = 4.89$ ,  $p < .03$ . Further, while participants in these control conditions did not change their consumption over time ( $Fs < 1$ ), participants in the cued condition increased the number of servings of fruits and vegetables they consumed each day by 25%, ( $M = 2.69$  vs.  $2.16$ ),  $F(1, 55) = 5.23$ ,  $p < .03$ .

## Discussion



Experiment 2 extends our results into actual product choice. Linking a reminder to eat more fruits and vegetables to a frequent environmental cue increased people's consumption of fruits and vegetables. The same slogan was not as effective in changing behavior when participants' environments did not contain cues for that slogan. Furthermore, even though the comparison slogan was liked equivalently, the cued slogan was actually more effective. This analysis suggests that while catchy slogans may be very helpful in getting people to say that they will change their behavior, if the product is not cued by the environment when people are actually making decisions, the slogan may fail to be effective.

#### GENERAL DISCUSSION

Researchers have argued that "consumer behavior is strongly influenced by subtle environmental cues" (Dijksterhuis, et al. 2005, p 193), but few papers in marketing have actually investigated this claim. The current research provides an initial investigation into the role of everyday environmental cues on consumer behavior by examining how incidental exposure to indirect cues can affect product accessibility, liking, and choice.

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### Author Note

This research benefited greatly from the comments of Jennifer Aaker, Chip Heath, Baba Shiv, Itamar Simonson, and Christian Wheeler.

Figure 1

*Experiment 1: The Influence of Slogan and Dining Hall on Product Evaluations*

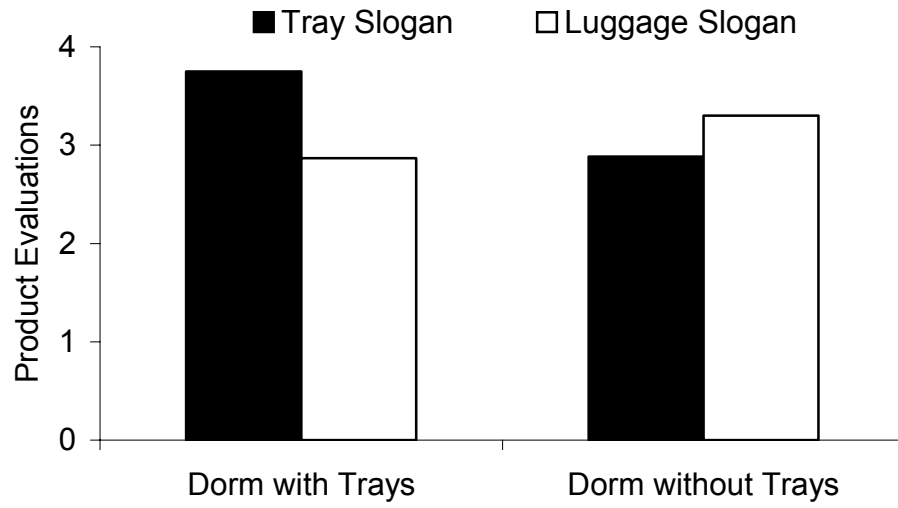
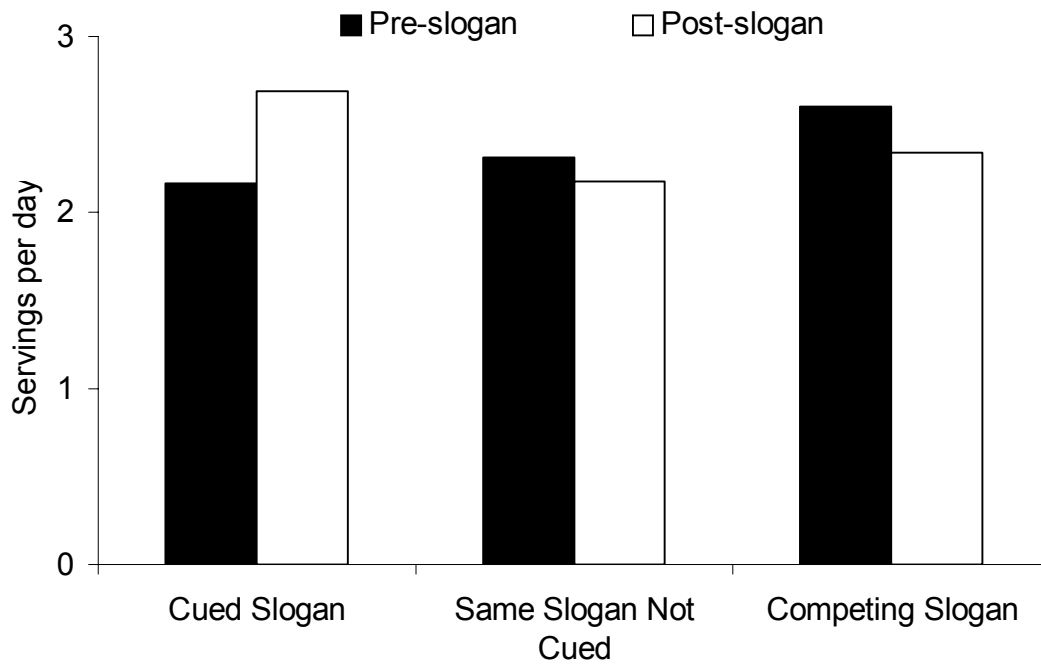


Figure 2

*Experiment 2: The Influence of Environmental Cues on Fruit and Vegetable Consumption*



Partitioning or Bundling: An Investigation of the Boundary Condition

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## Extended Abstract

Many firms divide a total price into two parts instead of charging a one all-inclusive price. This practice is termed as partitioned pricing. Morwitz, Greenleaf and Johnson (1998) name the larger part of the partitioned prices as *base* price and the smaller part as *surcharge*. They argue if consumers do not process base prices and surcharges completely and accurately, partitioned pricing can increase consumer demand because of lower recalled total costs. However, the vast amount of research on bundling, prospect theory, and mental accounting theory all suggest that aggregated or bundled prices are more favorably evaluated than separated prices (e.g., Adams and Yellen 1976; Thaler 1985). That means, consumers will respond more favorably to a bundled price than equivalent partitioned prices. This apparent discrepancy calls for research attention to identify the boundary condition in which bundle pricing is more profitable or partitioned pricing is more profitable. The current study addresses this gap by investigating the applicability of partitioned and bundled pricing under different levels of the surcharge relative to the base price.

### **Research Hypotheses**

If consumers do not process both the base price and surcharge completely and accurately, a partitioned pricing can be more profitable than presenting consumers an equivalent bundled price. Consumers select a strategy for a particular task by making trade-offs between the benefits and costs of applying each strategy. For the current price-evaluation case, consumers will process the price information by making trade-offs between the cognitive effort and accuracy of information process, and may either underestimate the surcharge or completely ignore it, leading to lower recalled cost, and thus increasing demand. However, Partitioned pricing is not only applied to a situation where the base price is significantly bigger than the surcharge. The relative



significance of a surcharge may vary from being far smaller than the base price to exceeding the base price in many situations. For example, in online retailing, a flat shipping and handling fee may apply to any transaction, regardless of the price of the product. For low-price items, it is likely that the surcharge exceeds the base price of the product.

According to the cost/benefit framework, a consumer will underestimate or ignore the surcharge, because monetary benefit derived from a full comprehension and accurate processing of the surcharge cannot offset the psychological and cognitive cost derived from a through processing of the surcharge price information. However, when the surcharge level increases, the possibility for a consumer to ignore it will substantially decrease, because the benefit of processing price information increases along with the surcharge. Thus, we propose the following hypothesis.

**H1:** When the surcharge is relatively low, partitioned prices generate higher purchase intentions than an equivalent bundled price; however, when the surcharge is high, partitioned prices generate lower purchase intentions than the bundled price.

The surcharge level might also influence consumers' perceived fairness of the surcharge, thus alter purchase intentions of the product in partitioned pricing. Small surcharges may be perceived as fair (Morwitz, Greenleaf, and Johnson 1998). If perceived as fair and necessary, a surcharge will not draw full attention in a consumer's evaluation process (Morwitz, Greenleaf, and Johnson 1998), and it is likely to be ignored or underestimated in the total cost. However, if the surcharge is much higher than a consumer's reference point, consumers may perceive it as unfair. The surcharge will be fully comprehended in the evaluation process, leading to lower purchase intentions. Thus, we have the following hypothesized mediating effect of perceived fairness of the surcharge.

**H2:** Given everything else equal, the greater the magnitude of the surcharge in a partitioned pricing, the lower is the perceived fairness of the surcharge, and the lower is the purchase intention of the product.

## **Studies and Results**

We conducted two studies to test the proposed hypotheses. Study 1 employed a 2 (pricing format: bundled vs. partitioned pricing, within-subject)  $\times$  3 (surcharge magnitude: low vs. moderate vs. high levels, between-subject)  $\times$  2 (order, between-subject) mixed design. Surcharge magnitude was manipulated between subjects with three different levels. The format of price was manipulated within subjects. The experiment was manipulated by counterbalancing the order of partitioned pricing and bundled pricing to detect and eliminate potential carry over effect of the within-subject factor. The stimulus used in Study 1 was a CD walkman with a base price of \$49.95, with three different surcharges of \$5, \$15, and \$25, respectively. A total of 82 undergraduate students participated in Study 1.

The paired-sample T tests on purchase intentions demonstrated diversified patterns of participants' responses to the pricing format at different levels of surcharge. Consistent with Morwitz, Greenleaf and Johnson (1998), participants had higher purchase intentions when exposed to a partitioned base price and a small surcharge than when exposed to an equivalent bundled price. In contrast, when the surcharge is high, bundled pricing generated higher purchase intentions than partitioned pricing did. In addition, when the surcharge was moderate, purchase intentions for these two forms of pricing had no significant difference. It appears that surcharge level altered the favorability of the partitioned pricing. Consistent with the simple main effect tests, the interaction effect between surcharge level and pricing format was significant in a repeated-measure within-subject ANOVA on purchase intention. We used the Baron and

Kenny's (1986) method was to test the mediating effect of perceived fairness of surcharge on purchase intention in the partitioned pricing. And the results indicated that perceived fairness of surcharge completely mediated the effect of surcharge level on purchase intention in a partitioned pricing. Thus, both H1 and H2 were supported.

In Study 2, we keep the surcharge constant, and manipulate the base price at a reasonable range, to change the relative significance of the surcharge. Study 2 employed a 2 (pricing format: bundled vs. partitioned price, within-subject)  $\times$  2 (base price: less than vs. greater than the surcharge, between-subject)  $\times$  2 (order, between-subject) mixed design. The product used was a digital watch, with product features exposed to the participants. In the partitioned pricing conditions, the digital watch had a base price of \$7.9 or \$49.9, respectively. The surcharge of "overnight shipping and handling fee" was \$9 across these two conditions. The price in the bundled format was \$16.9 or \$58.9, equal to the sum of the base price and the surcharge in the partitioned pricing condition, respectively. A total of 104 college students participated in the study as a course requirement.

The paired-sample T tests on purchase intentions demonstrated different patterns of purchase intentions at different levels of base price. Participants had higher purchase intentions under the partitioned pricing condition than under the bundled pricing condition only when the base price was greater than the surcharge. In contrast, when the base price was smaller than the surcharge, partitioned pricing generated lower purchase intentions than bundled pricing did. Consistent with the simple main effect tests, the interaction effect between the base price and pricing format was significant in a repeated-measures within-subject ANOVA on the purchase intention. Similarly, we tested the mediating effect of perceived fairness of surcharge by following Baron and Kenny (1986). The results indicated that perceived fairness of the surcharge

partially mediated the effect of base price (relative surcharge level) on purchase intention in a partitioned pricing.

## **Conclusions**

The current research demonstrates that when the surcharge is relatively low, partitioned prices generate higher purchase intentions than an equivalent bundled price does; however, when the surcharge is high, partitioned prices generate lower purchase intentions than the bundled price does. The current research provides valuable insights for marketing managers. Morwitz, Greenleaf, and Johnson (1998) advocate that firms could divide and prosper. Our research shows that this may well be the case, but with limits. It is profitable to partition a total price into two separate parts, only when the surcharge is relatively small as compared to the base price. Otherwise, an all inclusive price will generate higher purchase intention, thus increasing demand.

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Neural Correlates of Brand Choice under Uncertainty: The Role of Brand Trust

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## ABSTRACT

Based on prior findings about the neural correlates of simple brand choice, this paper investigates how uncertainty affects the neural networks underlying brand choice. The research framework is multidisciplinary by applying a neuroscientific method to answer the question which information is processed during brand choice immediately when the decision is computed in the test person's brain. In a neuroscientific experiment test persons perform binary decisionmaking tasks between different service provider brands offering the same service at varying levels of external uncertainty. The results suggest that the presence of the respondent's first choice brand during a more uncertain choice leads to a specific modulation of neural brain activity.

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## [Implicit Priming as a Competitive Promotional Strategy for Challenger Brands

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*Dipankar Chakravarti, University of Colorado, Boulder*

Challenger brands that aim to enter a category inhabited by a dominant competitor face a daunting task. Incumbency generally implies greater consumer awareness and credibility for the dominant brand (Carpenter and Nakamoto 1989) as well as possible skepticism and discounting (Friestad and Wright 1994) of even veridical claims of the challenger's feature superiority. Thus, consumers' conscious mental processes erect formidable barriers to challenger brands attaining consideration as well as favorable evaluations and purchase intent. In contrast, the challenger may be more effective with promotional strategies that assure nonconscious (i.e., below the awareness threshold) delivery and processing of information. Implicit priming of the challenger's key attributes during a prior exposure episode may allow the information to enter "below the radar" and influence focal mental variables via involuntary encoding and retrieval processes. The benefits may stem from both the positive effects of fluency and from circumventing counterargument because consumers are unaware of the influence of prior exposure.

This paper explores the feasibility of two variants of this "implicit priming" strategy. In Study 1, we test the feasibility of a strategy that implicitly primes and transfers concepts to the challenger brand across different product categories. In other words, the target attribute is primed during a prior exposure episode using a referent brand that is in a different category from the challenger. The contrast "explicit strategy" is one where the concept transfer attempt involves direct linking the priming and the challenger brands. The study embeds an analysis of how the effectiveness of



the implicit and explicit promotion strategies is moderated by category relatedness (i.e., whether the priming and challenger brand categories are close or distant) and attribute type (hedonic or utilitarian). We find that the implicit promotion strategy is more effective than the explicit promotion strategy across a range of measures. Moreover, attribute type and category relatedness moderate effects on brand consideration and brand attitudes respectively.

In Study 2 we test the feasibility of a strategy where an attribute (performance or protection benefit) is primed implicitly during a prior exposure episode by alluding to impact within the same product category as the challenger. The contrast “explicit strategy” directly makes this benefit claim for the challenger. We also assess how the subject’s regulatory focus (promotion versus prevention) and the type of attribute (performance versus protection) moderates the effectiveness of the implicit versus the explicit promotion strategy. We find that the implicit promotion strategy is more effective than the explicit strategy in inducing brand consideration and positive brand attitudes. Regulatory focus moderates this promotion type effect.

We discuss the implications of the two studies for how challenger brands may deliver more effectively their promotional messages when facing a dominant brand in their category. We assess the likely product, person and situational moderators of these effects as well as limitations on the effectiveness of these strategies at various levels of the response hierarchy.

**Competitive Paper Session 10C (Spirit Dining Room)**

**Conversations With the Consumer: Media Images, Word-of-Mouth  
and Other Channels**

The Mirror Has Two Faces: Positive and Negative Media Image Effects

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*Smeesters Dirk, Tilburg University*

## Abstract

We examine several factors that determine whether exposure to thin (or heavy) media images positively or negatively impacts consumers' appearance self-esteem. In this re-examination of Richins's (1991) article, we find that the effects of exposure to models in advertisements depend on two moderating factors: (1) the extremity of the model's thinness or heaviness; and (2) the method by which self-esteem is measured (free responses versus rating scales). We also establish the underlying role of self-knowledge activation by examining response latencies in a lexical decision task.

THE MIRROR HAS TWO FACES:  
POSITIVE AND NEGATIVE MEDIA IMAGE EFFECTS

A model-thin body is now considered to be an ideal that every woman should admire and achieve (Wertheim et al. 1997). This article examines how exposure to thin (or heavy) media images affects women's appearance self-esteem. Richins (1991) demonstrated that women were less satisfied with their own physical appearance after viewing advertisements featuring thin, attractive models. A number of other researchers have confirmed that exposure to thin media images can negatively impact assessment of one's own attractiveness (e.g., Martin and Gentry 1997). However, there is also evidence that exposure to thin models in magazines can lead to self-enhancement and thinner self-ratings (e.g., Mills et al. 2002) than exposure to larger-sized body images. Thus, it remains unclear under which conditions such exposure results in assimilative or contrastive shifts in self-evaluation. In the present article, we integrate some of these previously divergent findings and extend Richins's (1991) work by documenting circumstances under which exposure to idealized pictures of women in ads exert positive or negative effects.

Prior research has uncovered assimilation as well as contrast effects in self-evaluation as a result of social comparison. Upward comparisons can result in decreased self-satisfaction and downward comparisons can result in increased self-satisfaction (e.g., Richins 1991). On the other hand, an upward comparison target might also serve as an inspiration or role model, while exposure to a downward comparison standard can result in feelings of discouragement (see Stapel and Koomen 2001). Mussweiler (2003) proposed the *selective accessibility model* to explain whether assimilation or contrast occurs. The first stage in this cognitive model is standard selection, which can be manipulated by providing comparison targets, such as thin or

heavy models. The second stage is comparison, which is influenced by selective accessibility. The comparison is made by a quick holistic assessment of the similarity between the self and the standard. The individual making the comparison will search her memory for evidence of similarities or dissimilarities between the self and the target. Perceived similarities indicate that the standard resembles the self, and results in the activation of standard-consistent information of the self. Perceived dissimilarities indicate that the standard does not resemble the self, which results in the activation of standard-inconsistent information of the self. The final stage, evaluation of one's own abilities, is highly dependent on the information selectively retrieved during the second stage. Subsequent self-evaluation should assimilate to the standard when it is based on the accessible standard-consistent information of the self. However, self-evaluation should contrast away from the standard when standard-inconsistent information of the self is accessible.

Differences in perceived similarity between the self and a comparison standard can determine the occurrence of contrast or assimilation in self-evaluation. For example, Häfner (2004) manipulated participants' perceived similarity to models in ads by altering the headlines to read "same body–same feeling" or "feel the difference," and found assimilation effects among participants primed on similarity and contrast effects among those primed on dissimilarity. Magazine readers are more likely to view moderately thin or moderately heavy models as "possible selves" (Markus and Nurius 1986), either currently or in the future, than extremely thin or extremely heavy models. Therefore, we expect to find assimilative self-evaluations after participants view pictures of moderately thin (or moderately heavy) models and contrastive self-evaluations after participants view pictures of extremely thin (or extremely heavy) models. When comparing oneself to a moderately thin model, knowledge that one is thin should become

accessible, and when comparing oneself to a moderately heavy model, knowledge that one is heavy should become accessible (Mussweiler 2003). Comparing oneself to an extremely thin or extremely heavy model, on the other hand, should increase the accessibility of knowledge that one differs from the model. As a result, an individual should express higher self-esteem when having access to knowledge that one is thin compared to knowledge that one is heavy.

Another factor that is expected to influence our participants' self-judgments is the way in which these judgments are measured, known as the response mode (Payne, Bettman, and Johnson 1992). According to Mussweiler and Strack (2000), a rating scale response is dependent on reference point use. When answering a rating scale (such as a Likert scale), the standard of comparison serves as a reference point to anchor the scale (Lynch, Chakravarti, and Mitra 1991), which leads to contrast when comparing oneself to a standard (Mussweiler and Strack 2000). A free response measure is not affected by reference point use but rather reflects knowledge accessibility effects. Therefore, when a rating scale is used, we expect lower self-ratings when participants are exposed to thin models than to heavy models, regardless of the extremity of the model's build (replicating Richins's 1991 contrast results).

In summary, we expect both the model's extremity and the response mode to influence participants' self-esteem responses, as described in the following hypotheses:

- H1a:** When completing a free response measure, participants will demonstrate higher self-esteem after exposure to moderately thin models compared to moderately heavy models (i.e., an assimilation effect), and lower self-esteem after exposure to extremely thin models compared to extremely heavy models (i.e., a contrast effect).
- H1b:** When completing a rating scale measure, participants will demonstrate lower self-esteem after exposure to thin models than after exposure to heavy models, regardless of

extremity (i.e., a contrast effect).

## EXPERIMENT 1

A pretest was used to select advertisements containing female models for the following four conditions: moderately thin, extremely thin, moderately heavy, and extremely heavy. Participants were 62 female university students who completed a paper-and-pencil test in exchange for course credit. Each participant viewed an advertisement booklet containing 23 ads with female models. Participants rated each model in terms of size (-5 = extremely overweight, 5 = extremely thin) and attractiveness (-5 = extremely unattractive, 5 extremely attractive). Based on these scores, we selected four advertising models in each condition. Tukey post-hoc comparisons ( $\alpha = .05$ ) revealed that that all four conditions differed significantly from each other in terms of size but not in terms of attractiveness. Extremely thin models ( $M = 3.56$ ) were judged as thinner than moderately thin models ( $M = 2.48$ ), who were rated as thinner than moderately heavy models ( $M = -1.39$ ), who were rated as thinner than extremely heavy models ( $M = -2.44$ ).

In the first experiment, 62 female university students participated for course credit. Each participant was randomly assigned to one of the four conditions of the 2 (model size: thin vs. heavy)  $\times$  2 (extremity of model size: moderate vs. extreme) between-subjects design. The first task was labeled "Advertisement Questionnaire". Participants received a booklet containing eight full-page color ads: four ads with models, pertaining to their condition, and four filler ads with no models. The order of the eight ads was randomized. Participants indicated on 5-point scales whether the ads were original, convincing, and/or informative. Following a short filler task, participants received an "Attitude Questionnaire". The first part of this questionnaire consisted of the Twenty Statements Task (Kuhn and McPartland 1954), where participants complete 20 self-descriptive statements ("I am \_\_\_\_"). This free response task can validly assess individuals'

momentary self-conceptions such as appearance (Gardner, Gabriel, and Lee 1999). Next, participants completed the Appearance Self-Esteem Scale on a 5-point scale (Heatherton and Polivy 1991), which represented the rating scale measure. Finally, participants completed a short questionnaire, which indicated that no participants correctly guessed the true nature of the study.

Two independent judges, blind to the conditions and the hypotheses, scored participants' TST answers. For each participant, the judges selected self-descriptive statements, either positive or negative, that referred to the participants' own physical appearance (e.g., "I am pretty", "I am slim", "I am heavy", "I am unsatisfied with my appearance"). The judges showed a high level of agreement ( $r = .81$ ). Based on the selected statements per participant, two other independent judges, also blind to the conditions and the hypotheses, rated each participant's perception of their own physical appearance using a 5-point scale that ranged from 1 (*very negative about their own physical appearance*) to 5 (*very positive about their own physical appearance*). Ratings of the two judges were highly correlated ( $r = .91, p < .001$ ), and combined into a single score. Our analysis for the free response measure was based on these judged ratings. We also conducted an analysis on the difference between the number of positive and negative self-descriptions about one's own appearance. This analysis was highly similar to the analysis on the judged ratings.

We conducted a 2 (model size: thin vs. heavy)  $\times$  2 (extremity of model size: moderate vs. extreme)  $\times$  2 (response mode: free response vs. rating scale) ANOVA with model size and extremity of model size as between-subjects factors and response mode as a within-subjects factor. This analysis revealed a three-way interaction between model size, extremity of model size, and response mode ( $F(1, 58) = 11.62, p < .01$ ), which is illustrated in figure 1.

Analysis of the free response measure revealed a model size  $\times$  extremity interaction ( $F(1, 58) = 15.29, p < .001$ ). Participants exposed to moderately thin models had higher appearance



self-esteem ( $M = 3.60$ ) than participants exposed to moderately heavy models ( $M = 2.38$ ), resulting in an assimilation effect that supports hypothesis 1a. Participants exposed to extremely thin models had lower appearance self-esteem ( $M = 2.63$ ) than participants exposed to extremely heavy models ( $M = 3.53$ ), resulting in a contrast effect that also supports hypothesis 1a. Analysis of the rating scale measure revealed only a main effect of model size ( $F(1, 58) = 14.50, p < .001$ ), providing evidence to support hypothesis 1b. Participants exposed to thin models ( $M = 2.63$ ) had lower appearance self-esteem than participants exposed to heavy models ( $M = 3.29$ ).

These findings imply that in addition to selective accessibility, self-evaluative comparisons also suggest a reference point mechanism that may be used for subsequent judgments. Thus, the contrast effects found for extremely thin and heavy models on both the free response and the rating scale measure appear to result from a different underlying process: knowledge accessibility in case of the free response measure and reference point use in case of the rating scale measure. Experiment 2 was designed to provide further evidence for the role of knowledge accessibility in self-evaluation when comparing oneself to models in ads.

## **EXPERIMENT 2**

In experiment 2, we tested the underlying process by which self-knowledge becomes accessible after exposure to thin versus heavy models by using a lexical decision task. This task measured the accessibility of words designating thinness, words designating heaviness, and neutral words. These words were preceded by subliminally presented self-primers (words related to the self, such as “I” or “me”), or with control primers (words unrelated to the self, such as “the” or “on”). Subliminal presentation of self-primers has been demonstrated to activate the self-concept (Dijksterhuis et al. 1998). Lexical decision trials preceded by self-primers increase the

specific accessibility of knowledge related to the self, whereas trials preceded by control primes do not (Dijksterhuis et al. 1998).

If selective accessibility plays a role in the comparison with advertising models, standard-consistent self-knowledge should become more accessible when participants compare themselves to moderately thin models (knowledge that one is thin should become accessible) or moderately heavy models (knowledge that one is heavy should become accessible). On the other hand, standard-inconsistent self-knowledge should become more accessible when participants compare themselves to extremely thin models (knowledge that one is heavy should become accessible) or extremely heavy models (knowledge that one is thin should become accessible). Hence, participants should respond more quickly in identifying words that are related to the knowledge that has become accessible.

**H2:** In the presence of a self-prime, participants exposed to moderately thin models or extremely heavy models will respond faster to words associated with thinness than to words associated with heaviness and to neutral words, whereas participants exposed to moderately heavy models or extremely thin models will respond faster to words associated with heaviness than to words associated with thinness and to neutral words.

Participants tend to compare themselves automatically with advertising models (Richins 1991), but the self-evaluative effects of such a comparison should only occur when participants are asked to judge themselves (as in experiment 1) or non-consciously primed to think about themselves (as with self-primes) (Dijksterhuis et al. 1998). On the other hand, lexical decision trials preceded by control primes should reflect only the knowledge associated with the standard (Dijksterhuis et al. 1998), since a self-comparison is not elicited. In particular, we predict here an interaction between model size and the target words. Exposure to moderately or extremely thin

models should lead to the activation of thin knowledge whereas exposure moderately or extremely heavy models should lead to the activation of heavy knowledge, as specified in the following hypothesis:

**H3:** In the presence of a control-prime, participants exposed to thin models will respond faster to words associated with thinness than to words associated with heaviness and neutral words, whereas participants exposed to heavy models will respond faster to words associated with heaviness than to words associated with thinness and neutral words, regardless of the extremity of the model size.

Participants were 84 female university students who participated for course credit. They were randomly assigned to one of the following four conditions: moderately thin, moderately heavy, extremely thin, or extremely heavy. This resulted in a 2 (thin vs. heavy models; between)  $\times$  2 (moderate vs. extreme; between)  $\times$  2 (self-primes vs. control primes; within)  $\times$  3 (thin vs. neutral vs. heavy target words; within) experimental design.

Upon arrival in the laboratory, participants were told they would participate in two unrelated studies. First, participants completed the same “Advertisement Questionnaire” as in experiment 1, containing (a) the four ads with models, pertaining to their condition, and four filler ads with no models; and (b) several 5-point scales on which participants indicated whether the ads were original, convincing, and informative. After this task, participants sat in front of a computer monitor and performed a word recognition task. The instructions on the screen informed them that they should focus on the screen every time a string of XXX’s appeared. They were told that this string would be followed by a word or a nonword, and that they should identify, as fast as possible, whether the word existed or not. Participants responded by either

pushing the '1' (word) or the '3' (nonword) on the keyboard. To reduce variance in response latencies, participants were asked to keep their hands near the buttons throughout the task. The lexical decision task consisted of 42 trials, with 6 practice trials and 36 critical trials. The critical trials consisted of 18 trials in which the target word was an existing word and 18 trials in which the target word was a random letter string (e.g., golrr). Of the 18 existing target words, 6 words were associated with thinness (e.g., thin, slender), 6 words were associated with heaviness (e.g., heavy, fat), and 6 words were unrelated to thinness-heaviness (e.g., calm). One half of the target words were preceded by a self-prime (I, my, me), and the other half were preceded by a control prime (on, the, a). We created two lists for this task, so that 3 specific words that were preceded by a self-prime in the one list were preceded by control primes in the other and vice versa. The 36 trials were randomly presented. At the beginning of each trial, a row of XXX's appeared on the center of the screen for 1,000 ms. The prime then appeared in the same location for 15 ms and was immediately masked by the string of XXX's again for 500 ms. Then the target word appeared, overwriting the mask, and remained on the screen till participants made a lexical decision, which was timed by the computer. After each decision, the screen remained blank for 2,000 ms.

An ANOVA revealed a four-way interaction between model size, extremity of model size, self-primes, and target words ( $F(2, 160) = 7.62, p < .01$ ), as illustrated in figure 2. To test for our specific hypotheses regarding self-primes and control primes, we conducted two separate  $2$  (model size: thin vs. heavy)  $\times 2$  (extremity of model size: moderate vs. extreme)  $\times 3$  (target words: thin vs. neutral vs. heavy) ANOVAs, with the last factor being within-subjects, on the response latencies for each type of prime. The ANOVA for the self-primes revealed a three-way interaction between model size, extremity of model size, and target words ( $F(2, 160) = 11.83, p$

< .001). Participants exposed to moderately thin models responded faster to thinness words ( $M = 476$  ms) than to neutral words ( $M = 516$  ms;  $F(1, 80) = 4.91, p < .05$ ), or heaviness words ( $M = 520$  ms;  $F(1, 80) = 6.57, p < .05$ ). Participants exposed to moderately heavy models responded faster to heaviness words ( $M = 484$  ms) than to neutral words ( $M = 521$  ms;  $F(1, 80) = 4.06, p < .05$ ), or thinness words ( $M = 527$  ms;  $F(1, 80) = 5.95, p < .05$ ). Further, participants exposed to extremely thin models reacted faster to heaviness words ( $M = 477$  ms) than to neutral words ( $M = 518$  ms;  $F(1, 80) = 5.17, p < .05$ ), or thinness words ( $M = 515$  ms;  $F(1, 80) = 4.80, p < .05$ ). Participants exposed to extremely heavy models reacted faster to thinness words ( $M = 473$  ms) than to neutral words ( $M = 519$  ms;  $F(1, 80) = 6.39, p < .05$ ), or heaviness words ( $M = 522$  ms;  $F(1, 80) = 7.97, p < .01$ ). These results support our predictions in hypothesis 2.

The ANOVA for the control primes revealed a two-way interaction between model size and target words ( $F(2, 160) = 6.81, p < .01$ ), supporting hypothesis 3. Participants exposed to thin models reacted faster to thinness words ( $M = 485$  ms) than to neutral words ( $M = 517$  ms;  $F(1, 80) = 7.63, p < .01$ ), or heaviness words ( $M = 516$  ms;  $F(1, 80) = 8.99, p < .01$ ). Participants exposed to heavy models reacted faster to heaviness words ( $M = 489$  ms) than to neutral words ( $M = 516$  ms;  $F(1, 80) = 4.00, p < .05$ ), or thinness words ( $M = 520$  ms;  $F(1, 80) = 8.76, p < .01$ ).

The results confirmed that moderate and extreme comparison standards lead to a selective increase in the accessibility of different subsets of self-knowledge, as indicated by response latencies to words preceded by a self-prime. It appears that self-knowledge consistent with the standard becomes accessible after exposure to moderate comparison standards, and standard-inconsistent self-knowledge became accessible after exposure to extreme comparison standards. These results foster strong support for a selective accessibility explanation of the assimilation and contrast effects obtained with the free response measure in experiment 1.

Our two studies also confirmed Richins's (1991) suggestion that women compare themselves spontaneously and automatically with the models in advertisements. However, in contrast to Richins's findings, we demonstrated that exposure to thin models does not necessarily have a negative impact on one's self-esteem. On the contrary, exposure to moderately thin (but not extremely thin) models has a positive impact on one's self-esteem. Our findings might explain why *Mode* magazine, which featured only plus-sized models, folded after just four years due to low circulation rates (Morris 2002). Fashion and beauty magazine readers may aspire to achieve the thin ideal pictured on the cover, and without promises of attaining such an ideal, there might be no reason to buy the magazine.

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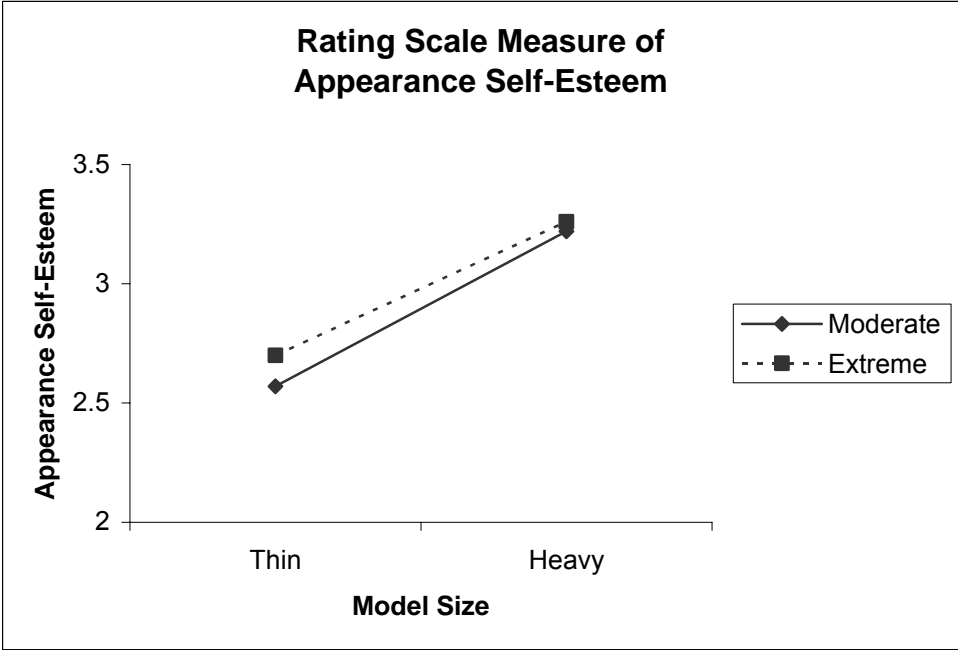
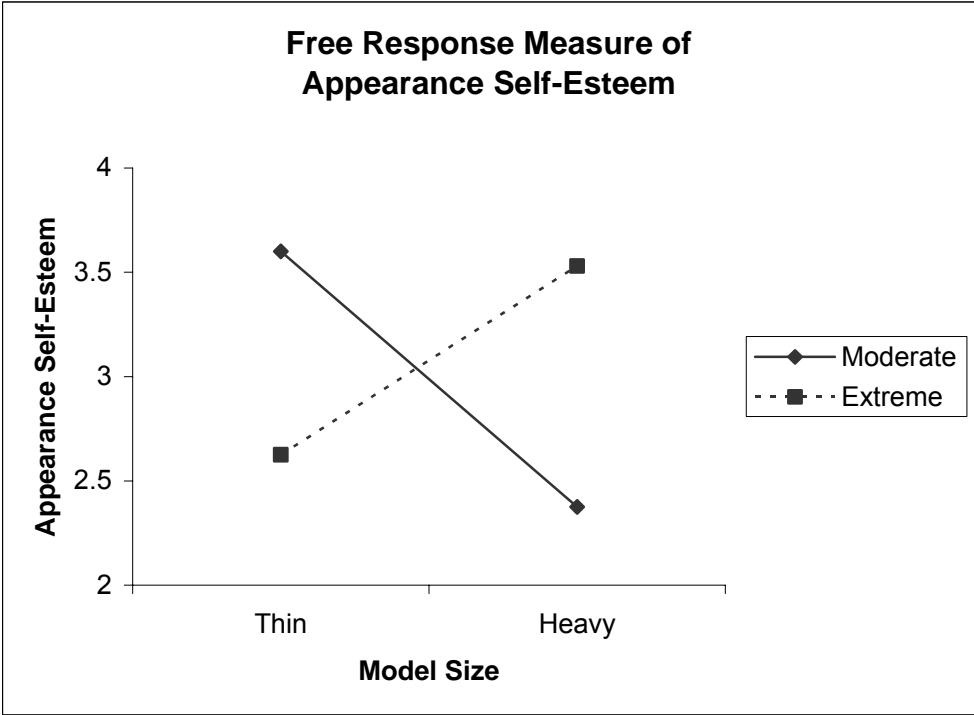
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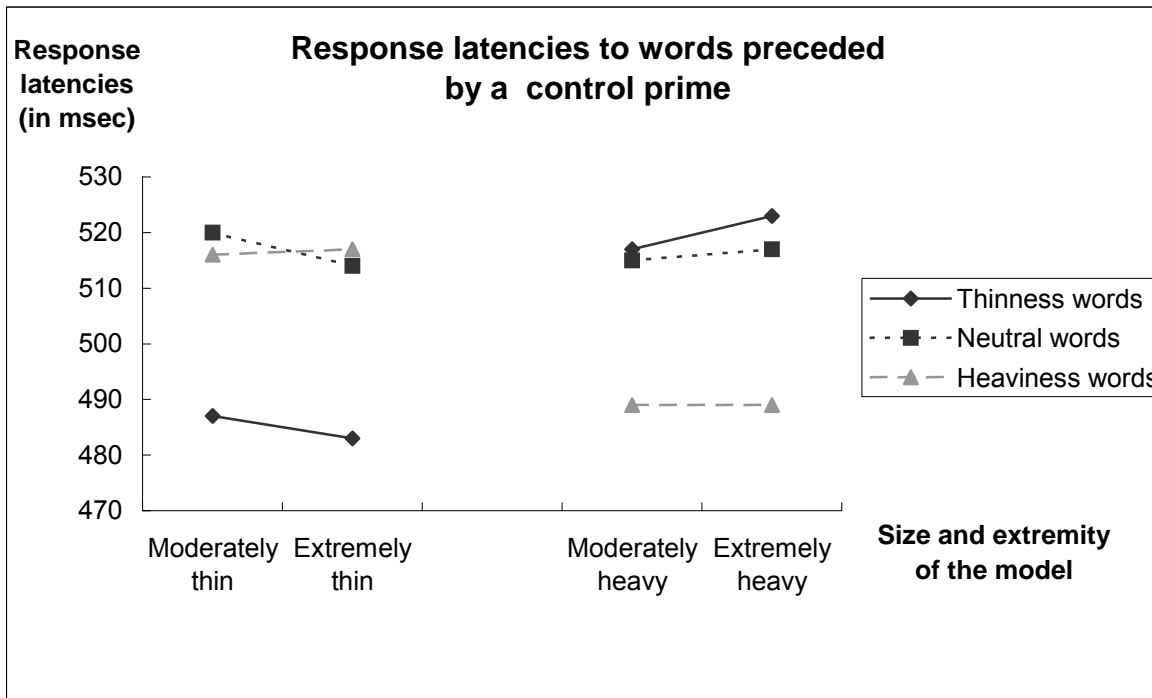
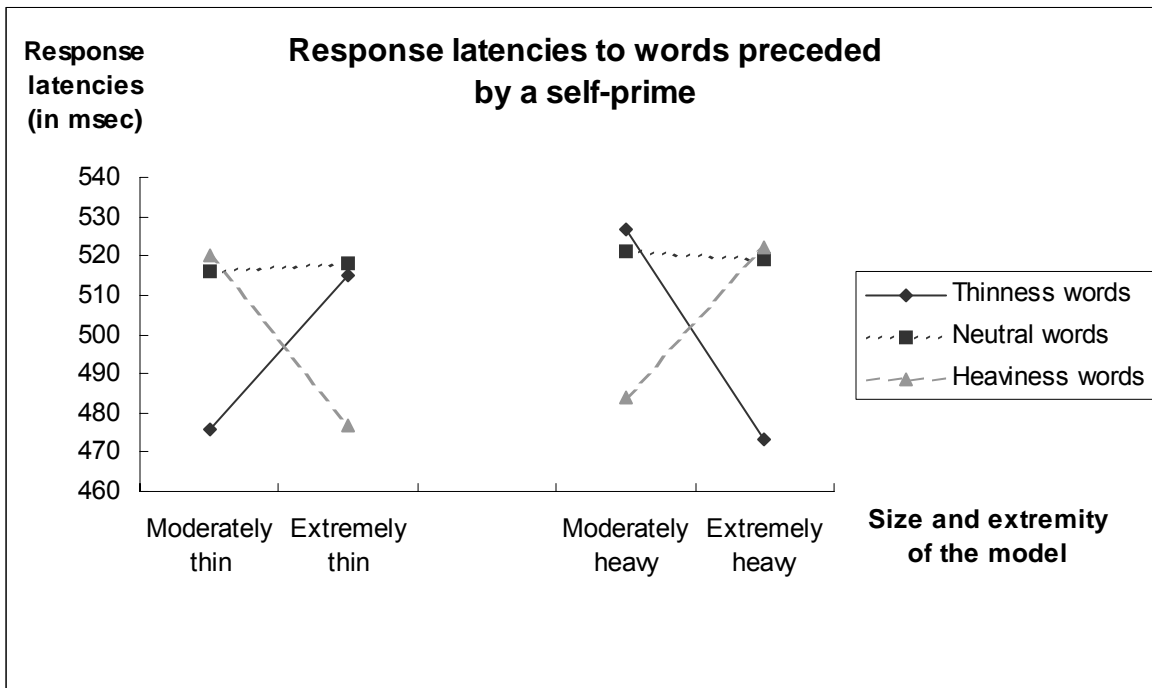
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**FIGURE 1:** EXPERIMENT 1 RESULTS: APPEARANCE SELF-ESTEEM AS A FUNCTION OF MODEL SIZE, EXTREMITY, AND RESPONSE MODE



**FIGURE 2:** EXPERIMENT 2 RESULTS: REACTION TIMES AS A FUNCTION OF MODEL SIZE, EXTREMITY, PRIME, AND TARGET WORD



Why It is Particularly Important to Please Your Female Customers: How Sex Differences in Emotions & Communication Style Influence the Likelihood, Intensity, & Effectiveness of Word-of-Mouth Communication

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This research examines how men and women differ in terms of how they both spread and react to word of mouth. A combination of survey and experiment results will be presented. The research supports the predictions that, compared to men, women are more likely to spread word of mouth about a purchase experience. However, the greater tendency for women to spread word of mouth (measured by both stated likelihood of telling others and the number of individuals they report they would tell) is particularly pronounced with purchase experiences that lead to negative emotions.

It is also found that, compared to males, females pay more attention to both warnings of bad service and recommendations of good service from friends, whether they are experts in the category or not. In contrast, males pay more attention to third party experts, regardless if they know them personally or not. Finally, it is found that both men and women are more likely to talk about their consumption experience with women than with men. In short, women spread more WOM, hear more WOM and pay more attention to the WOM that they hear.

The results presented are in line with prior research pointing to women's higher tendency to consider regular communication about their daily lives to be a key ingredient of a meaningful relationship as well as prior work suggesting that females are more likely to talk with friends about their painful experiences.

Word-of-Mouth Communication: A Closer Look at the Interaction

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### Abstract

Negative word-of-mouth communication is a common behavior of dissatisfied consumers, and it has a powerful influence on other (potential) customers. We investigate the interaction that takes place when people engage in word-of-mouth, in order to obtain more insight in the consequences that word-of-mouth has for the person who is sharing his or her negative experience. This is important since the consequences of word-of-mouth may affect further (dis)satisfaction of an initially dissatisfied customer, and consequently it may affect behaviors that may be harmful to the firm (e.g., switching or spreading more negative word-of-mouth). In two studies we show that consumers experiencing different emotions (i.e. regret vs. anger) desire different responses from their conversation partner, but that the actual responses they receive do not differ across emotions. That is, regretful consumers desire to receive responses that express the opinion of others (putting into perspective, advice, and disagreement). Yet, angry consumers desire responses of confirmation or antagonism (towards the firm). This difference is absent in the responses they actually receive. This provides first evidence for the idea that the specific emotions that consumers experience when engaging in word-of-mouth should be taken into account when investigating its consequences.

## WORD-OF-MOUTH COMMUNICATION: A CLOSER LOOK AT THE INTERACTION

Negative consumption experiences are a matter of fact in daily life, and most emotional experiences – over 80% – are shared with other people, hence these negative experiences as well. These negatively valenced, informal communications between private parties concerning goods and services are called word-of-mouth communication (Anderson, 1998), which is a powerful force in the marketplace because it influences the attitudes of other (potential) customers (e.g., Herr, Kardes, & Kim, 1991). Although we have insight in the consequences of negative word-of-mouth for the person who receives the message (the conversation partner), less is known about the consequences for the person who is sharing the experience (the source).

Insight in the consequences of word-of-mouth for the source is important because it may explain and predict the subsequent (dis)satisfaction of initially dissatisfied customers, as well as their subsequent behaviors that may be detrimental to a firm or service provider (e.g., switching or more word-of-mouth). In order to investigate the consequences of engaging in word-of-mouth, we should first understand the interaction that takes place in word-of-mouth. In the present research, we investigated which responses sources would like to receive from others, as well as which responses they actually receive. Comparing the response that consumers desire with the response that they receive shows whether they achieved what they wanted, which may affect how they feel after having engaged in word-of-mouth.

Since negative consumption experiences can involve a wide range of negative emotions, our first aim here is to establish whether word-of-mouth differs for different emotions. That is, we expect that consumers desire different responses when they talk about different emotions. Emotion research reveals that specific emotions differ with regard to various aspects, such as their action tendencies, thoughts, and feelings (e.g., Roseman, Wiest, & Swartz, 1994). Evidence



on emotion-specific effects can be best found when research compares emotions that are similar in valence but highly differentiated on another dimension (cf. Lerner & Keltner, 2000).

Therefore we included anger and regret, emotions differing in their cause: attributing negative feelings to the firm or service provider results in anger (Smith & Lazarus, 1993), attributing them to oneself leads to regret (Zeelenberg, Van Dijk, Manstead, & Van der Pligt, 2000). If we were to find differences in the desired and received responses to word-of-mouth after regret and anger, this would imply that the specific emotions must be taken into account when investigating the consequences of engaging in word-of-mouth.

Another contribution made by the present research is that it integrates research on word-of-mouth with a stream of research in social psychology that focuses on the social sharing of emotions, which “occurs in the course of conversations in which individuals openly communicate about emotional circumstances and their own feelings and reactions to these circumstances” (Rimé, Mesquita, Philippot, & Boca, 1991, p. 438). The studies on social sharing consistently show that socially sharing emotional experiences does not lead to a reduction in the intensity of the negative emotion. This research has not yet taken the desired responses of the conversation partner into account, which is important however, because it provides insight in what people achieved by sharing their experience. Investigating what people would like to hear from others would extend social sharing research by providing more detail on the interaction that takes place when people socially share their emotions, and this increased understanding may enable researchers to make better predictions of its consequences.

#### STUDY 1: WHAT DO WE WANT TO HEAR?

In the present study, we investigated whether people who experience anger would like to receive other responses to word-of-mouth than people who experience regret (two negatively

valenced emotions differing in their cause). Eight responses were included, based on a review of the literature (Christophe & Rimé, 1997; Singh-Manoux & Finkenauer, 2001): confirmation, support (e.g., comforting), disagree, advice, putting into perspective, bonding (stress social bonds), tell a similar experience, and antagonism (towards the firm). We will describe their specific connections to emotions next.

Beyond the general idea of emotion-specific differences in desired responses of word-of-mouth, we had the following expectations. First, because anger is a result of other-blame, we expected that angry people would like to be confirmed in their attribution. Second, people who feel regret see themselves as responsible for the negative experience and hope that the other person disagrees with this attribution. In addition, the self-blame element of regret may result in a lowered self-esteem, in which cases people like to receive responses that enhance their self-esteem, such as putting the situation into perspective and stressing the social bonds. Anger, in contrast, includes a typical element of other-blame. In addition, angry people tend to speak negatively about the source of their anger (Wetzer, Zeelenberg, & Pieters, 2005). The implication of this may be that angry people also like to hear that others speak negatively about the source of the anger. Thus, we expected that anger is related to a desire to receive a response that expresses antagonism towards the firm or service provider.

Students were placed in individual cubicles in the laboratory. Participants carefully watched a short clip from what appeared a home video recently made by students. They were instructed to identify with its main character, Tina. The video showed a student making a film about her house and her roommates. She enters the room of a roommate, Tina, who is sitting behind her computer and then discovers that she missed the deadline for subscribing for an

important exam, which means that she has to pay a fine. We chose for this negative consumption situation because it is a typical negative service experience for students.

At this point, the video was different per condition: Participants in the regret condition saw Tina blaming herself for being late again, she expresses her regret nonverbally and by saying how stupid she has been, and she asks upset to turn off the camera. In the anger condition, participants saw Tina blaming the University for having inappropriate deadlines. She expresses her anger nonverbally and by cursing at the University, and asks upset to turn off the camera.

Next, the participants were instructed to imagine themselves in the position of Tina, and to answer several questions. First, as a manipulation check, participants rated to what extent they would feel angry at the University, and to what extent they would feel regret, from not strong at all (1) to very strong (7). Next, they indicated their preferred response. For each response they rated to what extent they would want to hear them when they were in Tina's position, from not at all (1) to very much (7). The items were: "That is very stupid indeed" (confirmation), "Come sit down, let's have a drink" (support), "I don't think it is stupid at all" (disagree) "I would pay as soon as possible and than just stop thinking about it" (advice), "What's done is done, it's no use crying over spilt milk" (putting into perspective), "But you are still my favorite roommate" (bonding), "Last semester, I was late too" (similar experience), and "Stupid University!" (antagonism).

The data showed that participants in the anger condition reported that they would experience more anger than regret, and participants in the regret condition reported higher scores for regret than for anger. In support of the general idea, analyses showed that five of the eight responses are desired to a significantly different level for anger and regret (see Figure 1). More specifically, regretful consumers desire more than angry people that their interaction partner puts

the situation into perspective, gives advice, or disagrees with them. Note that these responses all involve some kind of interpretation of the situation. People who experience regret thus desire the opinion of others when they share their emotion. Probably this is related to the fact that regret involves a feeling of having made a bad decision (Zeelenberg et al., 2000). By asking for the opinions of others, people may hope to learn that they did not do anything wrong at all (as is the case in disagreement). Responses that are valued more by angry consumers are confirmation and antagonism. One of the central themes of anger is 'other blame' (Smith & Lazarus, 1993), thus anger results from a feeling that someone else did something wrong. When people blame a firm for their negative experience, they hope to be confirmed in this attribution. In addition, they may hope that others speak negatively about the firm as well.

The present study showed that consumers desire different responses when they engage in word-of-mouth about different emotions. Regretful consumers desire responses that reveal other's opinion or interpretation (putting into perspective, advice, and disagreement). Angry consumers desire antagonism or confirmation. The next study investigated whether people are also more likely to give the desired responses to consumers who talk about different emotions.

## STUDY 2: WHAT DO WE SAY?

Here we investigated how people respond to consumers who engage in word-of-mouth while experiencing different emotions. In other words, do people provide different responses to consumers who talk about anger than to consumers who talk about regret? Insight in the responses that people provide is important for assessing the consequences of engaging in word-of-mouth. After all, it enables us to compare the responses that consumers actually receive to the response they desire most when they experience a specific emotion.

The method in the present study was virtually identical to Study 1. The crucial difference was in the perspective of the participants: in the present study the participants were explicitly instructed to identify with the person who was making the video (instead of with its main character who was experiencing the negative emotion). After watching the video the participants answered several questions. First, they indicated to what extent they thought that Tina would feel angry at the University, and to what she would feel regret, from not strong at all (1) to very strong (7). Next, they were asked what they would say when they had turned the camera off and sat down next to Tina. They indicated for each response to what extent they would be likely to express them. The items were the same items as in Study 1.

Participants in the anger condition perceived Tina as experiencing more anger, participants in the regret condition perceived Tina as experiencing more regret. Only two responses differed for different emotions (see Figure 2). Thus, most responses that are given to anger and regret did not differ between these emotions. The exceptions to this finding were the responses confirmation and disagreement: people are more likely to confirm angry consumers, whereas they are more likely to disagree with consumers experiencing regret. These responses both express the opinion of the responder: agreement (confirmation) or disagreement with the source. Believing that they are not responsible for the situation can help people who experience negative emotions. Angry consumers blame the firm or service provider, thus they will feel less responsible when their attribution is confirmed. Regretful consumers blame themselves, and they will feel less responsible when their interaction partner disagrees with this attribution.

## GENERAL DISCUSSION

In the present research we studied the interaction that takes place during word-of-mouth communication. We investigated which responses consumers wish to receive when they share

different emotions, and which responses they actually receive. As expected, we found that consumers desire different responses when they talk about different emotions. More specifically, when consumers talk about experiences of regret, they desire responses that reveal the opinion of their conversation partner (putting into perspective, advice, and disagreement). Angry consumers desire responses that express confirmation or antagonism (towards the firm). The responses that are actually received do not differ across emotions, however.

These results provide first evidence for the idea that the responses should be taken into account when investigating the consequences of engaging in word-of-mouth. These consequences may be different for different emotions. After all, we found that consumers would like to receive different responses when they engage in word-of-mouth after different emotions, but that they do not receive different responses. These findings add to the word-of-mouth literature by providing insight in the interaction that takes place, and this is a step forwards to investigating the consequences that engaging in word-of-mouth has for the source. These consequences are very important because they provide information about the remaining dissatisfaction of an initially dissatisfied consumer, and this dissatisfaction is in turn related to other behaviors that may be detrimental to the firm, such as switching.

In social psychology, an extensive stream of literature (mainly by Rimé and his colleagues) has concentrated on the social sharing of emotions. This research mainly concentrated on the observable aspects of sharing, such as with whom, how soon and how often people share. These studies consistently found that emotions do not differ with regard to these measures, apart from the finding that people wait somewhat longer to share shame and guilt (see for example Rimé et al., 1991). The present study extends the social sharing literature by showing that emotions do differ with regard to social sharing, namely with respect to the

response that people desire to sharing. In addition, social sharing research had not clearly found that people actually benefit from sharing their emotions. However, the current research shows that the responses desired after sharing differ for different emotions, implying that the consequences may also differ for different emotions. When investigating the consequences of social sharing, future research should take the desired and received responses into account.

But to return to the central question in the present research, we found support for our prediction that consumers desire different feedback when they engage in word-of-mouth about experiences that evoked different emotions. This research extends the literature on word-of-mouth by demonstrating which responses are desired to word-of-mouth after different emotions, as well as which responses are provided to consumers who talk about different emotions. It extends social sharing literature by showing that sharing differs across emotions with regard to the desired and received responses, and thus underlining the importance of investigating the interaction that takes place during word-of-mouth.

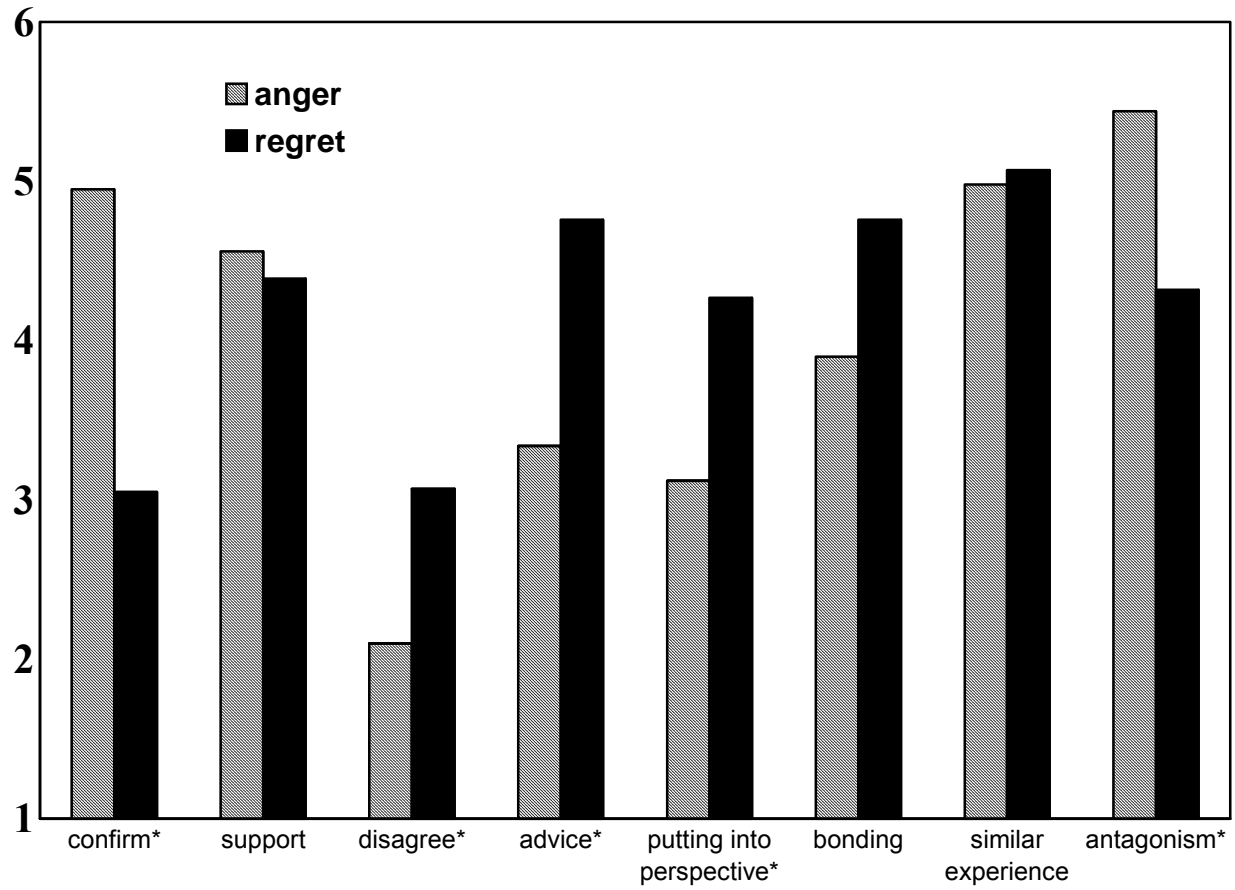
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Figure 1. Means of desired responses in Study 1. Responses marked with an asterisk differ significantly between anger and regret at  $p < .05$ .



Do Consumers Consider Off-line Channels to be Interactive and Should  
Researchers Do the Same?

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*Ross William T. Jr., Pennsylvania State University*

## **DO CONSUMERS CONSIDER OFF-LINE CHANNELS TO BE INTERACTIVE AND SHOULD RESEARCHERS DO THE SAME?**

### **Extended Abstract**

Researchers believe that the interactivity associated with the on-line channel enhances its attractiveness to consumers (Alba et al. 1997; Liu and Shrum 2002). As a result, in recent years researchers have invested considerable effort in developing conceptualizations and measurements of interactivity for the on-line channel so that consumers' on-line experience can be assessed (Coyle and Thorson 2001; Ghose and Dou 1998; Liu 2003; Liu and Shrum 2002). However, before extensive use of the Internet arose, interactivity has been studied in a non-web-based environment. In the communication and social sciences disciplines, different off-line modes of communications were compared in terms of interactivity. Lectures were compared to group dialogues and phone dialogues and were found to be less interactive than the other two modes (Bretz 1983; Rafaeli 1988). Both the on-line channel and the off-line channels involve communication with other individuals in person, via phone, or via e-mail. Thus, consumers might consider off-line channels to be as or even more interactive than the on-line channel with respect to communication. However, as far as we know, no attempt has been made to compare on-line and off-line channels in terms of interactivity.

In this study we compared two channels, web stores and catalogues, in terms of interactivity. We focus on these two channels because many researchers believe that catalogues are not as interactive as web stores (Alba et al. 1997), yet this is an assumption that has not been tested. In the same way that some companies regard their web sites as simply electronic catalogues (e.g., [landsend.com](http://landsend.com)) consumers may perceive catalogues to be just as interactive as web stores.

With respect to interactivity, we focus on three central dimensions to compare web stores to catalogues: message contingency, real-time communication, and control. These dimensions have been employed previously by researchers (Liu and Shrum 2002; McMillan and Hwang 2002) to assess interactivity. Message contingency refers to the degree to which messages are contingent on previous messages in a communication differentiating among three levels of interactivity: non-interactive, quasi-interactive, and fully interactive (Bretz 1983; Rafaeli 1988; Williams et al. 1988). Real-time communication focuses on the timing of response in a two-way communication. Some researchers have labeled it as speed, synchronicity, and response time (Alba et al. 1997; Liu and Shrum 2002; Steuer 1992). Real-time communication is considered central to interactivity because a fully interactive communication might not be perceived as interactive if it is delayed (Roehm and Haugtvedt 1999; Steuer 1992; Williams et al. 1988). Control refers to consumers' ability to impact the exchange of information between them and the other party. When consumers can determine the sequence of the information they view, they exercise control over the form in which information is presented to them.

We developed a measure of eight interactive characteristics that can assess interactivity both in web stores and catalogues. The measure is based on the interactivity literature and corresponds to the three dimensions. Sixty-two students from a large public Northeastern University participated in the survey. We asked participants to rate the interactive characteristics on a scale from 1 to 7 indicating the degree to which they are present or absent in each of the channels. We randomly assigned participants to one of the two channels, catalogues, and web stores. T-tests were employed to test for differences in perceptions between the two channels on the eight characteristics.

The results indicate that only in terms of message contingency were the web stores perceived to be more interactive than catalogues. For the other two dimensions, catalogues were perceived to be as interactive as web stores. Although our study is exploratory, the results may have important implications for consumer research. Researchers may need to re-conceptualize interactivity to address off-line interactivity. One question researchers need to address in their conceptualization is what dimensions should be included. Another important question researchers can investigate is how the different perceptions of interactivity across channels influence consumers' tendency to prefer one channel to another. Practitioners can also benefit from these results. When companies acknowledge the interactive power of off-line channels, they can utilize that power to increase consumers' satisfaction. For example, catalogues can supplement web stores to increase consumers' perceived interactivity of the company and hence increase their satisfaction and intention to purchase.

A more rigorous measurement of interactivity would be useful to validate these results as we measured the dimensions with interactive characteristics but did not form a scale for each dimension. Also, our study used a small sample of college students. A larger and more diverse sample in terms of age should be used to test the stability and generalizability of our results.

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**2:50pm – 4:05pm: Session 11 (Competitive Paper Sessions)**

**Session 11 A (Spirit Dining Room)**

**Me versus Them: Role of Groups in Consumer Decisions**

Reasons to “Me” or reasons to “Us:” The Interaction between Self-Construal and a Search for Reasons and its Impact on Consumer’s Judgments  
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## **Abstract**

This research develops a framework for anticipating when cultural vs. other forms of knowledge (e.g., personal beliefs) will be recruited in making and justifying one's judgments. Findings in this research suggest that an independent self facilitates reasons based on personal beliefs, whereas an interdependent self facilitates reliance on reasons based on shared, or culturally rooted, beliefs. Whenever these beliefs have different implications on individual's judgments, the impact of culture on behavior can be impaired by an independent prime. As opposed to situations where personal and shared beliefs are likely to be congruent (e.g., self-expressive situations like choice situations), when personal beliefs are not congruent with what the culture indicates, the former beliefs are more likely to be used as reasons under an independent prime compared to an interdependent prime. In this context, a search for reasons might not bring culture to the fore of the mind, thus limiting its impact on individual's behavior.

# REASONS TO “ME” OR REASONS TO “US:” THE INTERACTION BETWEEN SELF-CONSTRUAL AND A SEARCH FOR REASONS AND ITS IMPACT ON CONSUMER’S JUDGMENTS

## MOTIVATION

Consumers often provide reasons for purchase and other decisions they make. Past research suggests that asking consumers to provide reasons can shift their focus from the search of the best option, based on product attributes and individual’s preferences, to the search for the option supported by the best reasons (Simonson & Nowlis, 2000). Individuals who search for reasons often focus on salient and plausible explanations for their decisions (Nisbett & Wilson, 1977) and the knowledge that is drawn upon to develop these reasons may be culturally rooted (Briley, Morris, & Simonson, 2000). In this regard, culture might influence behavior whenever a search for reasons leads individuals to draw on cultural knowledge (Briley et al., 2000). However, cultural knowledge can be recruited flexibly as a function of temporarily activated self-representations (Ybarra & Trafimow, 1998). This research develops a framework for anticipating when cultural vs. other forms of knowledge (e.g., personal beliefs) will be recruited in making and justifying one’s judgments.

## CULTURE, SELF-CONSTRUAL, AND KNOWLEDGE ACCESSIBILITY

Culture is frequently defined as the coalescence of discrete behavioral norms and cognitions shared by individuals within some definable population that both defines what the self is and prescribes how people should manage their self in everyday life (Lehman, Chiu, & Schaller, 2004). In particular, culture influences self-representations through the transmission of cultural mandates of what it means to be an accepted member of the culture (Sedikides, Gaertner, & Toguchi, 2003). These self-representations are internalized in the form of a loose network of

domain-specific knowledge structures—beliefs, decision principles, and categories—that can guide the interpretation of stimuli only when brought to the fore of the mind (Hong, Morris, Chiu, & Benet-Martinez, 2000).

This dynamic view of cultural knowledge has been described in models of the working self-concept as sampled from the independent and the interdependent self-construals (Markus & Kitayama, 1991). Markus and Kitayama (1991) identify the most significant distinction between these two construals in the role assigned to others in self-definition. For the interdependent self, others are included within the boundaries of the self, whereas an independent construal assumes the self to be a complete, autonomous entity, without the others. When a particular self-construal is nurtured by society, it becomes chronically more accessible at the individual level. However, individuals in any culture have both independent and interdependent definitions, but they sample them with different probabilities depending on the situation (Triandis, 2000). Accessibility of a given self-construal has implications for the type of knowledge activated in a specific context (Markus & Kitayama, 1991). An independent self-construal is more likely to bring to mind individual's own beliefs and preferences, whereas an interdependent self-construal makes more likely the activation of social norms and shared beliefs (Kuehnen, Hannover, & Schubert, 2001; Ybarra & Trafimow, 1998). Self-accessibility can then impact judgment by affecting the weight individuals assign to their own attitudes and to social norms in a given situation (Ybarra & Trafimow, 1998), which can ultimately affect the sources for the reasons they recruit.

#### KNOWLEDGE ACCESSIBILITY, SEARCH FOR REASONS, AND JUDGMENT

Consumers who expect to explain their judgments shift their focus from their decision process to a search for good explanations (Simonson & Nowlis, 2000). During this searching process, individuals tend to focus on facts or beliefs that are readily accessible, easy to articulate,

and that are also considered plausible explanations for the situation at hand (Nisbett & Wilson, 1977; Wilson & Schooler, 1991). Out of all the potential sources for reasons, individuals are particularly likely to sample from a pool of culturally supplied explanations (Nisbett & Wilson, 1977) and to draw upon cultural knowledge to develop reasons (Briley et al., 2000). These types of reasons may be particularly accessible when the individual's personal beliefs are congruent with those shared by the cultural group (Sechrist & Stangor, 2001).

Past research about the impact of reasons on the activation of cultural knowledge has focused on choice situations (e.g., Briley et al., 2000) for which culturally rooted reasons might be particularly accessible. Given that choices can be a form of self-expression for certain individuals (e.g., individuals from Western cultures, Kim & Drolet, 2003), individual's own decision rules for making choices would be in many cases congruent with those prescribed by the culture. Furthermore, individuals would more likely learn that these are the rules shared by their cultural group (e.g., throughout the socialization process), making them particularly salient and easily recruited when searching for reasons (Sechrist & Stangor, 2001). In other words, the effect of culture under these circumstances should be particularly strong regardless of the temporarily accessible self-construal. In contrast, when facing judgmental tasks that are not as self-expressive as choices are, individuals might rely on non-culturally sanctioned sources for explanations.

Consumers commonly need explanations for others and for themselves (Simonson & Nowlis, 2000). Whenever oneself is the center of attention, the availability of individual's own attitudes and beliefs can serve as a source of plausible reasons (Hannover, Pohlmann, Springer, & Roeder, 2005). Under judgmental tasks that are not particularly self-expressive, or whenever individual's own attitudes and beliefs are not congruent with culturally sanctioned ones,

individuals might stay away from the pool of culturally supplied explanations. In this context, a readily accessible independent self may lead individuals to rely on reasons related to their own beliefs and attitudes for making their judgments. In contrast, whenever an interdependent self is readily accessible, cultural knowledge (e.g., shared or collective beliefs) that is brought to mind would more likely provide reasons for individual's judgments. The following hypothesis is then proposed for these situations where individual's own attitudes and beliefs are not congruent with culturally sanctioned ones:

**H1:** Self-accessibility affects the source for reasons recruited by consumers who need to justify their judgments. Individuals with an accessible independent self would tend to rely more on personal beliefs, whereas those with an active interdependent self would tend to rely more on shared beliefs.

Models of persuasion have firmly established that consumers who evaluate a product message frequently rely on salient message cues and prior beliefs stored in memory for their judgments (Chaiken, Liberman, & Eagly, 1989; Petty & Cacioppo, 1986). Cue accessibility tends to have its greater impact when messages lack personal relevance for the individual (Chaiken et al., 1989). This is likely the case in many instances when participants are exposed to persuasive messages and no search for reasons is elicited. In contrast, consumers who are prompted to search for reasons before making judgments effortfully look for the best plausible reason among the pool of available sources of knowledge (Simonson, 1989). Consumers would make inferences based on the reasons recruited from either personal or shared beliefs, which would ultimately impact their judgments. Whenever personal and shared beliefs provide reasons with different implications for the judgmental task, and when no other sources for reasons are

likely to be present, individuals can make judgments that will differ from those made by similar individuals who do not search for reasons (and who probably respond off the top of their head).

When shared beliefs warrant inferences that would affect the judgmental outcome more negatively than personal beliefs would, and when no other sources for inferences are likely to be present, individuals with a readily accessible interdependent self-construal who search for reasons would make a more negative judgment than those who don't search for reasons. This difference would be driven by the effortful search among shared beliefs as a source for reasons made available by a readily accessible interdependent self-construal. In this regard, a readily accessible interdependent self might be in some instances a necessary, but not sufficient, condition for the use of shared beliefs by individuals when making judgments (Briley & Aaker, 2001; Briley et al., 2000). In contrast, individuals with an active independent self would more likely rely on their readily available personal beliefs as a source for reasons. For these individuals, their personal beliefs relevant for the situation are likely to be readily accessible regardless of whether they search for reasons or not. Whenever the effortful process of searching for reasons is not likely to bring to mind idiosyncratic information (Wilson & Schooler, 1991), and when no other sources for inferences are provided (e.g., irrelevant or contextual information, Lerner & Tetlock, 1999), a search for reasons would not impact judgments made by individuals with a readily accessible independent self.

The processes just described would also be revealed whenever shared beliefs warrant inferences that would affect more positively perceptions of risk than personal beliefs would. However, in this context, judgmental outcomes would go in the opposite direction (e.g., individuals with a readily accessible interdependent self who search for reasons would make more positive judgments). Thus, the following hypotheses are proposed:

**H2:** A search for reasons interacts with self-accessibility affecting consumer's judgments.

When shared beliefs warrant inferences that would affect more negatively (positively) the judgmental outcome than personal beliefs would, a search for reasons would lead individuals primed with interdependence to make more negative (positive) judgments than those who don't search for reasons, whereas it would not affect the judgment made by individuals primed with independence.

**H3:** The use of shared beliefs, prompted by a search for reasons, by individuals primed with interdependence would mediate the impact of the interaction between self-accessibility and a search for reasons on consumers' judgments.

## RESEARCH METHOD

Two experiments were designed to provide empirical support for the hypotheses developed in this research. Experiment 1 focused on a situation where shared beliefs are more positive for the judgmental outcome than personal beliefs are, whereas experiment 2 focuses on the opposite situation. A pretest common for both experiments was used to identify personal and shared beliefs suitable for the purpose of this research. Both experiments were designed to test the hypotheses in a context simple enough as to allow for an exhaustive analysis of all plausible reasons (Simonson, 1989). Given the focus of this research on cognitive processes, both experiments focused only on judgments about risk. Perceived risk was chosen for both theoretical and methodological reasons. Perceived risk is a very important antecedent of consumers' evaluations of products (Campbell & Goodstein, 2001; Gurhan-Canli & Batra, 2004) and its different facets have been widely studied in the consumer research literature (Dowling & Staelin, 1994), which facilitates the design of the controlled situations of interest in this research. The conceptualization of perceived risk as a two dimensional (importance and probability of



loss), multifaceted (performance, social, physical, financial, and psychological risk) construct (Dowling, 1986) facilitates the focus on a single facet of risk, which helped to limit the number of potential reasons likely to impact participants' risk perceptions.

## EXPERIMENT 1

In this experiment, the type of perceived risk studied was physical risk, manipulated in the context of an allergy drug. The consumer situation focused on reasons based on personal and shared beliefs related to how much people exercise. In a separate pretest, conducted before the experiment, participants reported their beliefs related to how much college students exercise (e.g., shared beliefs) and their own beliefs related to exercising (e.g., personal beliefs) using a procedure similar to that used to uncover cognitive biases (Sagarin, Cialdini, Rice, & Serna, 2002). College students shared the belief that people in general do not exercise as much as they personally do ( $M_{personal} = 5.73$  vs.  $M_{shared} = 4.69$ ,  $p < .01$ ). In other words, shared beliefs indicated that people do not exercise much compared to greater concerns with exercising from personal beliefs.

The process of searching for reasons was elicited using an accountability manipulation (Simonson, 1989). More specifically, it was used a predecisional accountability manipulation that emerges from knowing that one has to justify his/her own decisions to an audience whose views are unknown, before committing to the decision. This type of accountability prompts individuals to think more self-critically, to carefully qualify their opinions, and to consider multiple perspectives on the issue in an effortful process trying to anticipate the objections that the audience might raise to their judgments (Lerner & Tetlock, 1999).

Participants first read a story aimed at priming either the independent or the interdependent self-construal (Ybarra & Trafimow, 1998). After that, in an unrelated task about

product evaluations, they were asked to evaluate the risk associated with an allergy drug (3-items scale) with side effects particularly relevant for people who exercise regularly either anticipating a group discussion (accountability) or not (no accountability) and were asked to indicate the reasons for their judgments. Participants' reasons were coded as to whether they expressed personal concerns about the side effects due to regular exercising (e.g., personal beliefs) or not (e.g., lack of concerns would imply the use of favorable shared beliefs). Participants were expected to derive more negative consequences (e.g., higher levels of perceived risk) from personal reasons related to how much one exercise compared to the more positive perception of risk related to shared beliefs about how little the average college student exercises. A 2 self-priming groups; between subjects (interdependent/independent self) x 2 accountability groups; between subjects (accountability/no accountability) full factorial design was used in this experiment.

## Results

*Reasons based on personal and shared beliefs.* In support for hypothesis 1, an analysis of simple effects revealed that, among individuals who searched for reasons, those primed with independence reported more personal concerns about the side effects due to exercising ( $M = .50$ ) than those primed with interdependence ( $M = .00, p < .0001$ , one-sided).

*Perceived physical risk.* The results of a 2 (accountability) x 2 (self-prime) ANOVA yielded only a significant interaction between self-prime and accountability ( $p < .05$ ), and no significant main effects. Supporting hypothesis 2, planned contrasts revealed that, among individuals primed with interdependence, those who searched for reasons perceived significantly less risk ( $M = 11.10$ ) than those who did not ( $M = 14.05, p < .01$ ). In contrast, participants primed

with independence did not differ in their levels of perceived risk between accountable and non-accountable conditions ( $M_{acc.} = 12.50$ ,  $M_{non-acc.} = 12.75$ ,  $F < .1$ ).

*Mediation analysis.* In order to test hypothesis 3, participant's reported number of concerns about the side effects due to regular exercising was subject to a mediation analysis which provide evidence for perfect mediation (Baron & Kenny, 1986).

## EXPERIMENT 2

Experiment 2 was designed to address several issues. It intended to replicate findings from experiment 1 in a more complex setting and focusing on a situation where personal beliefs would be more positive for risk judgments than shared beliefs would. A financial risk situation was selected for this purpose. The procedure used in this experiment was exactly the same used in the previous one except for the product situation. After reading the same story aimed at priming either the independent or the interdependent self-construal, participants were asked to evaluate the financial risk associated with a digital camera (3-items scale) with positive attributes and a noticeable poor warranty, and to state the reasons for their judgments. Participants' reasons were coded as to whether they referred to dependability/malfunctioning/reliability issues associated with a poor warranty or not. Although participants could have focused on multiple reasons, they were expected to pay special attention to the poor warranty (service costs not covered) and the potential financial burden related to it. In this regard, beliefs that a poor warranty might imply a non-dependable product would be associated with higher levels of perceived financial risk. In the same pretest from experiment 1, participants indicated that college students shared the belief that a poor warranty implies a non-dependable product as opposed to more favorable personal beliefs about a warranty-dependability relationship ( $M_{personal} = 2.92$  vs.  $M_{shared} = 3.57$ ,  $p < .065$ ). Participants were then expected to derive more negative

consequences (e.g., higher levels of perceived risk) from shared beliefs related to how a poor warranty implies a non-dependable product compared to the relatively more positive perception of risk related to personal beliefs about the same relationship. A 2 self-priming groups; between subjects (interdependent/independent self) x 2 accountability groups; between subjects (accountability/no accountability) full factorial design was used in this experiment.

## Results

*Reasons based on personal and shared beliefs.* In support for hypothesis 1, an analysis of simple effects revealed that, among individuals who searched for reasons, those primed with interdependence reported a greater number of concerns about dependability issues ( $M = .31$ ) than those primed with independence ( $M = .12, p < .05$ , one-sided).

*Perceived financial risk.* The results of a 2 (accountability) x 2 (self-prime) ANOVA yielded a significant interaction between self-prime and accountability ( $p < .001$ ), and a significant main effect of accountability ( $p < .05$ ). Supporting hypothesis 2, planned contrasts revealed that, among participants primed with interdependence, those who searched for reasons perceived significantly more risk ( $M = 14.38$ ) than those who did not ( $M = 11.46, p < .001$ ). In contrast, independent self-primed participants did not differ in their levels of perceived risk between accountable and non-accountable conditions ( $M_{acc.} = 12.12, M_{non-acc.} = 12.74, F < .7$ ).

*Mediation analysis.* Participants' reported number of reasons related to dependability issues was subject to a mediation analysis that suggested partial mediation (Baron & Kenny, 1986).

## GENERAL DISCUSSION

The process of searching for reasons can bring culture to the fore by leading individuals to draw on cultural knowledge (Briley et al., 2000). However, cultural knowledge can be

recruited flexibly as a function of temporarily activated self representations. This research further contributes to this dynamic view of culture by developing a framework for anticipating when cultural vs. other forms of knowledge (e.g., personal beliefs) will be recruited in making and justifying one's judgments. Congruent with Ybarra and Trafimow (1998), findings in this research suggest that an independent self facilitates reasons based on personal beliefs, whereas an interdependent self facilitates reliance on reasons based on shared, or culturally rooted, beliefs. Whenever these beliefs have different implications on individual's judgments, the impact of culture on behavior can be impaired by an independent prime. As opposed to situations where personal and shared beliefs are likely to be congruent (e.g., self-expressive situations like choice situations), when personal beliefs are not congruent with what the culture indicates, the former beliefs are more likely to be used as reasons under an independent prime compared to an interdependent prime. In this context, a search for reasons might not bring culture to the fore of the mind, thus limiting its impact on individual's behavior. This framework seems particularly relevant for a better understanding of the acculturation process experienced by bicultural individuals. Research on bicultural individuals has focused on studying behavior when different sources of cultural knowledge are brought to the fore of people's minds (e.g., Hong et. al., 2000). Scant research has focused on studying the potential conflict between personal beliefs and those from the cultures to which the individual has been exposed. The framework proposed here appears useful for a better understanding of the impact of an independent prime on bicultural individuals with varying degrees of assimilation with the host culture.

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Cross-Cultural Consumer Preference for Information Sources: A Study  
between the United States and Turkey

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## Abstract

A significant amount of consumer behavior and marketing research to date has focused on understanding behavioral and marketing phenomenon primarily in Western cultures (Aaker and Maheswaran 1997). There has been significantly less research, however, which investigates these same effects in non-Western cultures. The limited research in this area indicates that consumers in different cultures respond to marketing stimuli in diverse ways (Ackerman and Tellis 2001). While the Internet provides consumers with vast amounts of information, which has the potential to improve consumer decisions, Haubl and Trifts (2000) and Diehl and Zauberman (2005) have found that the structure of the information presentation in this online environment has both the potential to increase and decrease decision quality. One important tool that aims at helping consumers make product decisions in the online shopping environment is an electronic recommendation agent (Haubl and Trifts 2000). This tool assists consumers in making product decisions by organizing vast amounts of consumer product information in a format that provides for easier processing (Haubl and Trifts 2000). These agents provide a rank ordering of alternatives that the consumer can use to make product choices. In order to rank a list of alternatives, a recommendation agent must be provided with importance ratings of the different attributes (e.g., how important is battery life when considering a cell phone purchase?). These attribute weights can be provided by several different sources. For example, the list can be produced based on experts' ratings of the importance of each attribute (consumerreports.com), the consumers' own preference weights for product attributes (mysimon.com), or other consumers' preference

weights for product attributes (amazon.com). Others may further be divided into whether they are friends and family or not. These different types of recommendation agents will be referred to as “Expert Agents”, “Self Agents”, “Other Agents” and “Friends and family Agents” (respectively) for the rest of this research. The marketing literature identifies several dimensions on which cultures differ. One of these dimensions is individualism/collectivism (Aaker and Maheswaran 1997; Hofstede 1980). This research is aimed at understanding how this cultural dimension impacts consumers’ preference for Expert Agents, Self Agents, Other Agents and Friends and Family Agents. We expect to find that members of individualistic cultures will prefer to use Self Agents. More importantly, it is expected that members of collectivist societies will prefer to use Friends and Family and Expert Agents rather than Self Agents. This is because individualists tend to be ethno-centric (self focused) and value uniqueness and individual well being over group membership. On the other hand, members of collectivist cultures value communal goals, group membership and societal well-being (Hofstede 1980) and there is great respect for individuals of authority and standing. While this current research confirms and disconfirms some of the expectations, it has provided some interesting results. These results validate the belief in the importance of understanding the impact of this cultural dimension on preference for recommendation agents and potentially decision quality.

## CROSS-CULTURAL CONSUMER PREFERENCE FOR INFORMATION SOURCES:

### A STUDY BETWEEN THE UNITED STATES AND TURKEY

#### BACKGROUND STATEMENT

A significant amount of consumer behavior and marketing research to date has focused on understanding behavioral and marketing phenomenon primarily in Western cultures (Aaker and Maheswaran 1997). There has been significantly less research, however, which investigates these same effects in non-Western cultures. The limited research in this area indicates that consumers in different cultures respond to marketing stimuli in diverse ways. For example, Ackerman and Tellis (2001) find that Chinese and American consumers have dramatically different shopping practices. Chinese consumers use multiple senses when examining unpackaged foods, and do so far more than American shoppers. They also inspect many more items and take much more time when shopping.

With the rapid diffusion of the Internet globally, marketers and governments are increasingly faced with the challenges of dealing with consumers from differing cultures. While the Internet provides consumers with vast amounts of information, which has the potential to improve consumer decisions, Haubl and Trifts (2000), Diehl and Zauberger (2005) and Aksoy, Bloom, Lurie and Cooil (2006) have found that the structure of the information presentation in this online environment has both the potential to increase and decrease decision quality. From a public policy standpoint, it is important to understand how marketing academics can assist consumers in making better decisions.

Technological advancements and increased globalization have resulted in a vast increase

in consumers engaging in shopping transactions in this new environment, hence making it even more important that cross-cultural differences be investigated. While the previously mentioned researchers have discovered mechanisms to assist consumers in Western cultures, unfortunately the impact on consumers from other cultures has been vastly ignored. Therefore, the first objective of this research is to narrow this gap in the understanding of cross cultural online consumer welfare.

One important tool that aims at helping consumers make product decisions in the online shopping environment is an electronic recommendation agent. This tool assists consumers in making product decisions by organizing vast amounts of consumer product information in a format that provides for easier processing (Haubl and Trifts 2000). These agents provide a rank ordering of alternatives that the consumer can use to make product choices. Each consumer good (alternative) can be described as a bundle of attributes. For example, some of the attributes used to describe a cell phone are: battery life, number memory storage, and weight of the phone. In order to rank a list of alternatives, a recommendation agent must be provided with importance ratings of these different attributes (e.g., how important is battery life when considering a cell phone purchase?). These attribute weights can be provided by several different sources. For example, the list can be produced based on experts' ratings of the importance of each attribute (consumerreports.com), the consumers' own preference weights for product attributes (mysimon.com), or other consumers' preference weights for product attributes (amazon.com). These different types of recommendation agents will be referred to as "Expert Agents", "Self Agents", and "Collective Agents" (respectively) for the rest of this research. The second objective of this research is to understand how cultural

differences impact consumers' preferences for these various types of agents. This preference has the potential both to influence consumer satisfaction with a purchase as well as objective decision quality.

The marketing literature identifies several dimensions on which cultures differ. One of these dimensions is individualism/collectivism (Aaker and Maheswaran 1997; Hofstede 1989). This research is aimed at understanding how this cultural dimension impacts consumers' preference for Expert Agents, Self Agents, or Collective Agents. As has been shown in previous research (Haubl and Trifts 2000), it is important to understand the preferences of the consumer, since a mismatch between the decision making process of the consumer with the ranking method of the electronic agent significantly negatively influences decision quality (both subjective well-being and objective decision quality). We expect to find that members of individualistic cultures will prefer to use Self Agents. More importantly, it is expected that members of collectivist societies will prefer to use Collective and Expert Agents rather than Self Agents. This is because individualists tend to be ethno-centric (self focused) and value uniqueness and individual well being over group membership. On the other hand, members of collectivist cultures value communal goals, group membership and societal well-being (Hofstede 1989) and there is great respect for individuals of authority and standing. This leads to the following three hypotheses:

**H1: Consumers from individualist societies will prefer Self Agents more than consumers from collectivist societies.**

**H2: Consumers from collectivist societies will prefer Expert Agents more than consumers from individualist societies.**

**H2: Consumers from collectivist societies will prefer Collective Agents more than consumers from individualist societies.**

There is also likely to be a product category effect that needs to be considered. Previous research has shown (Feick and Higie 1992), at least in the realm of advertising, that consumers show a preference for endorsers who are similar to them when the product being advertised has high preference heterogeneity (i.e., products “in which tastes matter and outcomes are likely to be interpreted differently by different consumers (p.20)”) but prefer endorsers with experience for products with low preference heterogeneity (i.e., products in which the evaluation is more objective). As Feick and Higie state, this likely happens because when an evaluation is more subjective, people think someone similar to them would be more likely to evaluate it in the same manner as they would. However, when evaluating something more objective, similarity is less important, people want someone with the experience to be able to accurately evaluate the alternatives.

Initially, an exploratory study was undertaken to conduct the investigation into impact of culture, preference for source of recommendation and product class (preference heterogeneity). In this research, Turkey and the USA are chosen as the two countries where the propositions will be tested. Prior research findings indicate that Turkey and the USA are on opposite ends of the individualism/collectivism scale, where Turkey was found to be a collectivist culture and the USA was found to be an individualistic culture (Hofstede 1989; Triandis, Bontempo, Villareal, Asai and Lucca 1988). These two countries are therefore an ideal pair of countries, representing the two extreme poles of this cultural dimension, thus enabling cross-cultural comparisons and facilitating testing of the propositions of this research.

## EXPLORATORY STUDY

## Methods

*Participants.* All participants were university students. The American participants were from a university in Florida and the Turkish participants were from a university in Istanbul. A total of 488 students participated in the study with 232 from the United States and 256 from Turkey.

*Procedure.* Participants were given a survey and asked to provide their opinions on the various questions. The first page described the three different types of recommendation agents (Self, Collective, and Expert). Participants then read a scenario describing the purchase of a cellular phone (low preference heterogeneity) and were asked to provide their opinions on questions specifically dealing with searching for information on a cellular phone purchase. Participants then read a scenario describing the search for a movie (high preference heterogeneity) to see later that night. Again, participants were asked to provide their opinions on questions specifically dealing with searching for information on which movie to see later that night. As previously stated, these two product classes were included to investigate possible differences between those products which can be evaluated on more of an objective basis (such as cell phones, computers, and cameras) and those products which are more experiential and thus the evaluations are more subjective (such as movies, music, and restaurants). A product high in preference heterogeneity and a product low in preference heterogeneity were included to examine differences across products.

*Measures.* Participants were asked questions pertaining to the usefulness of recommendations from the agent, likelihood of following recommendations from the agent, ability of the recommendation agent to help them make the best decision possible,



and the ability of the recommendation agent to provide an accurate ordering of the quality of the alternatives. All responses were given on a 7-point Likert scale. These questions were asked for each of the three types of recommendation agents (Self, Collective, and Expert) and the 2 product classes (cellular phone and movie).

## Results

*Hypothesis 1.* Hypothesis 1 predicts that consumers from individualistic societies will prefer recommendations from Self Agents more than consumers from individualistic societies. Surprisingly this was not found to be true. As shown in figure 1, there was not a significant country of origin effect for the usefulness of a Self Agent ( $F < 1$ ), for the likelihood of following recommendations from a Self Agent ( $F < 1$ ), or for the ability of the Self Agent to help them make the best decision possible ( $F < 1$ ). We did find a significant country of origin effect on the ability of the Self Agent to provide an accurate ordering of the quality of the alternatives ( $F_{(1,483)} = 25.85, p < .001$ ). However, as can be seen from figure 1, the significant effect is in the opposite direction as was predicted.

Hypothesis 2. *Hypothesis 2 predicts that consumers from collectivist societies will prefer recommendations from Expert Agents more than consumers from individualistic societies. As shown in figure 2, this hypothesis was supported. We did find significant country of origin effects for the usefulness of an Expert Agent ( $F_{(1,484)} = 19.83, p < .001$ ), for the likelihood of following recommendations from an Expert Agent ( $F_{(1,484)} = 19.96, p < .001$ ), and for the ability of the Expert Agent to provide an accurate ordering of the quality of the alternatives ( $F_{(1,484)} = 23.46, p < .001$ ), all effects were in the hypothesized direction as expected. We also find marginally significant country of origin effects for the ability of the Expert Agent to help them make the best decision possible ( $F_{(1,484)} = 2.76, p = .098$ ).*

Hypothesis 3. *Hypothesis 3 predicts that consumers from collectivist societies will prefer Collective Agents more than will consumers from individualist societies. Yet again, this was not found to be true. As shown in figure 3, we did find significant country of origin effects for the usefulness of a Collective Agent ( $F_{(1,484)} = 26.5, p < .001$ ), for the likelihood of following recommendations from a Collective Agent ( $F_{(1,484)} = 4.77, p = .029$ ), and for the ability of the Collective Agent to help them make the best decision possible ( $F_{(1,484)} = 16.54, p = .001$ ). Again, all effects were in the opposite direction as predicted. We did not find a significant country of origin effect on the ability of the Collective Agent to provide an accurate ordering of the quality of the alternatives ( $F = 1.14$ ).*

Product Category / Preference Heterogeneity. *Our analysis suggests that this dimension needs to be explored more fully. As shown in figure 4, we find a significant effect of product category on the Usefulness of the Self Agent ( $F_{(1,484)} = 18.66, p = .001$ ) and the usefulness of the Expert Agent ( $F_{(1,484)} = 121.74, p < .001$ ) such that the Self Agent and the Expert Agent are perceived more useful for cell phone evaluations than for movie evaluations. We did not find a significant effect of product category on the usefulness of the Collective Agent ( $F = 1.29$ ).*

As shown in figure 5, we also find a significant effect of product category on the likelihood of following the advice of an Expert Agent ( $F_{(1,484)} = 62.05, p < .001$ ) such that consumers are more likely to follow the advice of an Expert Agent for a cell phone than for a movie. We did not find a similar effect for the Self Agent ( $F < 1$ ) or for the Collective Agent ( $F < 1$ ).

As shown in figure 6, we find a significant effect of category on the ability of the Expert Agent to help them make the best decision possible ( $F_{(1,484)} = 9.53, p = .002$ ) such that consumers perceive the Expert Agent to be more helpful for a cell phone evaluations than for a movie evaluation. We do not find similar effects for the Self Agent ( $F < 1$ ) or for the Collective Agent ( $F = 1.29$ ).

Lastly, as shown in figure 7, we find a significant effect of category on the perceived ability of the Expert Agent to accurately rank of the alternatives ( $F_{(1,484)} = 24.41, p < .001$ ) such that consumers perceive the Expert Agent to be more accurate at ranking cell phones than movies. We did not find similar effects for the Self Agent ( $F < 1$ ) or for the Collective Agent ( $F = 1.03$ ).

## Conclusions, Limitations, and Future Directions – Exploratory Study

In summary, we found there to be very little difference in the preference for Self Agents between individualist and collectivist consumers. Unexpectedly, the Turkish participants perceived a higher accuracy in the Self Agent than did the American consumers. Secondly, as expected we found that collectivist consumers preferred Expert Agents more than did the individualist consumers. Thirdly, we found that individualist consumers preferred Collective Agents more than did collectivist consumers.

Some limitations of the exploratory study should be noted. Although the objective of the first study was to conduct a preliminary test of the propositions, the results should be tested in an actual web-based choice task. Secondly, cultural studies have found that there is a further distinction that needs to be made regarding “others”. Studies have distinguished the construct of “others” into in-group (friends and family) and out-group (others). There is a higher value placed on the in-group over the out-group in collectivist cultures (Hui and Triandis 1986; Triandis ). The lack of such a distinction in the first study may have led to the result for the Collective Agent. Thirdly, in our analysis of study 1 we used country of origin as a proxy for cultural orientation whereas there are several studies that point to the fact that any particular member of a country can have both individualistic and collectivistic tendencies. Sinha and Tripathi (1994) for example find individualistic tendencies in Japan, a country known as a typical collectivist culture. Hence cultural orientation needs to be measured instead of proxied via country of origin. To alleviate these limitations, a second study was designed.

## EXPERIMENTAL STUDY

### Hypotheses

Based on the results of our exploratory and the previous research discussed, the hypotheses for the experimental study were refined from those tested in the exploratory study.

As previously discussed, members of collectivist cultures have great respect for individuals of authority and standing, more so than those of individualist cultures (Aaker and Maheswaran 1997; Hofstede 1989). This leads to the expectation that members of collectivist cultures will prefer the advice of experts more than members of individualist cultures. This leads to the fourth hypothesis:

**H4: Collectivist consumers will prefer Expert Agents more than individualist consumers.**

The literature has found that there is an in-group and out-group distinction when classifying “others”. Triandis and his colleagues (Triandis 1996; Hui and Triandis 1986) find that dimensions such as self-reliance, competition, emotional distance from in-groups and hedonism is prevalent for individualism, and interdependence, closeness to family or family integrity and sociability is observed to a greater extent in collectivistic societies. Given that previous research has also discovered that collectivist consumers value communal goals and group membership more than individualist consumers (Aaker and Maheswaran 1997; Hofstede 1989), it is expected that collectivist consumers will value to advice of their friends and family more so than individualist consumers. This leads to the following hypotheses:

**H5: Collectivist consumers will prefer Friends & Family Agents more than individualist consumers.**

**H6: Collectivist consumers will prefer Friends & Family Agents (the in-group agent) more than the Other Agent (the out-group agent).**

Since individualists tend to be ethno-centric and value uniqueness (Aaker and Maheswaran 1997; Hofstede 1989) it is expected that members of individualist cultures, more than members of collectivist cultures, will value their own opinions. This leads to the seventh hypothesis:

**H7: Individualist consumers will prefer Self Agents more than collectivist consumers.**

Lastly, as it is important to match the decision making process of the consumer with the ranking method of the recommendation agent (Haubl and Trifts 2000), it is expected that objective decision quality will be highest when participants use a Self Agent over all of the other Agent types. This leads to the eighth hypothesis:

**H8: Regardless of individualism/collectivism, consumers will have higher objective decision quality if they use a Self Agent over the other Agent types.**

## Methods

*Participants.* All participants were university students. The American participants were from a university in Florida and the Turkish participants were from a university in Istanbul. A total of 323 students participated in the study with 161 from the United States and 162 from Turkey.

*Procedure.* A 2 (Individualist & Collectivist) x 4 (self, friends and family, others and expert agent) quasi-experimental design was used in the experimental study.

This experiment entailed the use of a web-based choice experiment using recommendations based on four (as opposed to the original three) sources: Self Agent, Expert Agent, Friends & Family Agent (in-group agent) and Other Agent (out-group agent).

This web based choice experiment for the described recommendation agents was programmed using the Macromedia Authorware program based on the results of the pre-test. The program produced a shopping site called “Shoppers Universe.” Participants were asked to perform a specific shopping task: searching for a cell phone to purchase for their own use. As they entered “Shoppers Universe” they encountered the source manipulation. All participants were told that they would be provided a list of cell phone alternatives. Participants in the Self Agent condition were told that the list is produced based on “your own preferences.” Participants in the Expert Agent condition were told that the list is produced based on “unbiased and objective experts’ preferences. These experts are part of a global consumer protection agency.” Participants in the Friends & Family Agent condition were told that the list is produced based on “the preferences of your friends here at –insert name of university here- who are similar to you.” Lastly, participants in the Other Agent condition were told that the list is produced based on “the preferences of other consumers whom you have never met before.”

Participants were then asked to provide their importance ratings for 4 product attributes including “low price”, “light weight”, “long talk time”, and “long stand-by time” on a 10-point scale. A description of each of these attributes was provided to the participants.

Participants were then presented with a rank ordered list of cell phone choices. They were reminded whose preferences were used to generate the rank ordering of the list. By clicking on each item in the list they were provided with the specific ratings of that cell phone on each of the four attributes. They could choose that alternative or return to the list to continue browsing through the alternatives. Participants could look at each

product in the list as many times as they want. When they finally made a decision they were reminded of their chosen product's performance on the 4 attributes and then asked to answer a series of dependent variable and covariate questions (Appendix A). Euclidean distance in utility was calculated to measure objective decision quality. Since the participants indicated their preference ratings for each of the 4 attributes, it was possible to calculate a Euclidean distance score in utility between the chosen alternative and the ideal alternative (providing the maximum utility).

Lastly, participants completed a paper and pencil survey to measure cultural orientation using the 16 item Individualism and Collectivism (Appendix B) scale (Triandis and Gelfand 1998). This scale includes 16 items that are further divided into horizontal and vertical dimensions. The individualism and collectivism scale was formed by averaging the respective 8 items.

## Results

*Individualism/Collectivism.* As it would guide the rest of our analyses, our first analysis involved checking the individualism and collectivism scores for the American and Turkish participants. We were surprised to discover, contrary to previous research (Hofstede 1989; Triandis, Bontempo, Villareal, Asai and Lucca 1988), that there were no significant differences in individualism between the American and the Turkish participants ( $F < 1$ ) and even more surprising, that the American participants rated significantly higher on collectivism than did the Turkish participants ( $F_{(1,321)} = 25.80, p = .000$ ). This finding provides a possible explanation for the unexpected Hypothesis 3 results from the exploratory study.



Given the amount of time that has passed since Hofstede (1989) and Triandis et al, (1988) conducted their research, and the changes that these countries have undergone, we can see possible explanations for these findings. With the advent of the Internet and increased globalization, it is quite possible that these distinctions across cultures are getting smaller and smaller. Not surprisingly, the trend in cross-cultural research is to look at individual differences within countries (Kim, Triandis, Kagitcibasi, Choi & Yoon 1994; Gelfand and Dyer 2000; Sinha and Tripathi 1994; Li and Aksoy working paper). With this in mind, the rest of the analysis was conducted using a median split on individualism (1-5 = low individualism, 6-7 = high individualism) and on collectivism (1-5 = low collectivism, 6-7 = high collectivism) instead of using country of origin as a proxy for these measures. As participants have both a score for collectivism and for individualism, there are four possible combinations of high/low individualism and high/low collectivism. For the rest of the analysis participants scoring high collectivism/low individualism were selected as the operationalization of *collectivist* and participants scoring high individualism/low collectivism participants were selected as the operationalization of *individualist*.

*Manipulation Checks.* The manipulation check question for source asked participants who provided the rankings. Eighty five percent of the sample correctly identified the source correctly as expert, friends and family, others and themselves. In addition, the question regarding the realism of the web site, realism of the task and believability of the task also yielded no significant differences between conditions ( $F < 1$ ).

*Covariates.* We included the potential covariates in an ANCOVA test (Appendix A) and found that none of the covariates were significant. We have proceeded with the rest of our analysis without including the covariates.

*Hypothesis 4.*<sup>4</sup> Hypothesis 4 predicted that collectivist consumers would prefer Expert Agents more than individualist consumers. Support was not found for this hypothesis. There were no significant differences in repurchase intention for Expert Agents between collectivist and individualist consumers ( $F < 1$ ). Given the use of a low preference heterogeneity product (cell phone), the findings of Feick and Higie (1992) could explain this result.

*Hypothesis 5.* Hypothesis 5 predicted that collectivist consumers would prefer Friends & Family Agents more than individualist consumers. Marginal support was found for this hypothesis. As shown in figure 8, for consumers using the Friends & Family Agent, collectivist consumers were marginally significantly more likely to reuse Shopper's Universe than individualist consumers ( $F_{(1,295)} = 3.71, p < .10$ ).

*Hypothesis 6.* Hypothesis 5 predicted that collectivist consumers would prefer Friends and Family Agents (the in-group agent) more than the Other Agent (out-group agent). Marginal support was found for this hypothesis. As shown in figure 9, collectivist consumers were marginally significantly more likely to reuse Shopper's Universe if they used the Friends & Family Agent than the Other Agent ( $F_{(1,295)} = 2.80, p < .10$ ).

*Hypothesis 7.* Hypothesis 7 predicted that individualist consumers would prefer the Self Agent more than collectivist consumers. There were no significant differences in

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<sup>4</sup> Test of Hypotheses 4 – 8 involved conducting planned contrasts of various cells in the experimental design.

likelihood of reusing Shopper's Universe between individualist consumers using the Self Agent and collectivist consumers using the Self Agent ( $F < 1$ ). However, as shown in figure 10, individualist consumers were marginally significantly more likely to reuse Shopper's Universe if they used a Self Agent versus a Friend's & Family Agent ( $F_{(1,295)} = 2.94, p < .10$ ). While not predicted, it is something to investigate further as it could show a preference among individualist consumers for a Self Agent.

*Hypothesis 8.* Hypothesis 8 predicted that regardless on individualism or collectivism, consumers will have higher objective decision quality if they use a Self Agent over the other Agent types. Objective decision quality was determined by measuring the Euclidian distance between the optimal product (based on the consumer's own preferences) and the chosen product. A Euclidian distance of zero indicates that a consumer selected the optimal product. Given that a larger number indicates a bigger distance between the optimal product and the chosen product, for objective decision quality, a lower number indicates better decision quality. There were no significant differences in objective decision quality between the Self Agent and the other Agent types for either the collectivist or the individualist consumers ( $F < 1$  for all contrasts), except, as shown in figure 11, individualist consumers had significantly better objective decision quality if they used a Friends & Family Agent over a Self Agent ( $F_{(1,295)}, p < .05$ ). These findings are not necessarily surprising given the manipulations – regardless of the type of agent the rank ordering of the products was exactly the same. For this hypothesis, it was expected that someone using the Self Agent would trust their own rankings and thus choose the top product on the list (resulting in a Euclidian distance equal to zero). Given that consumers using the Self Agent were not significantly

different on Euclidian distance, it appears that consumers are not even using their own rankings to select the product.

### Conclusions and Contributions

The results of this research support previous research arguing for individual differences in individualism and collectivism (Kim, Triandis, Kagitcibasi, Choi & Yoon 1994; Gelfand and Dyer 2000; Sinha and Tripathi 1994; Li and Aksoy working paper) as opposed to looking at these dimensions strictly between cultures. Additionally, this research shows the importance of understanding the preferences of your consumers with regards to recommendation agents. A possible managerial implication is to offer consumers a choice of various recommendation agents allowing the consumer to choose the one which he/she most prefers.

Lastly, this research points to the possibility of consumer welfare being impacted due to recommendation agent use. Given the results shown in Figure 11 (that for all conditions the average Euclidian distance was not zero), it appears that consumers are choosing products which are not optimal given their own preference weights.

### Limitations and Future Directions

Only two categories of products (cell phones – low preference heterogeneity; movies – high preference heterogeneity) were tested in the exploratory study and only one product category (cell phones – low preference heterogeneity) was tested in the experimental study. Other product categories could provide more or less variance and a spectrum of categories should be investigated.

Use of student participants may not be representative of the general population. This research should be conducted using participants more representative of the general population.

For the analysis in the experimental study, only the high collectivism/low individualism and the high individualism/low collectivism consumers were used. This was just one of many ways to represent collectivist and individualist consumers. Other ways should also be considered. In addition, the consumers who ranked high collectivism/high individualism and the consumers who ranked low collectivism/low individualism were excluded from the analyses. While previous research did not allow for predictions for these two groups, they are potentially interesting and deserve further attention.

Another area which needs to be investigated is the use of various types of weighting methods. The weighted-additive method was used in the research to calculate utility however there are many other weighting methods that consumers can use to make decisions among products. These other weighting methods also need to be investigated as they could have an impact of decision quality.

Finally, this research just touched the surface of the impact of preference heterogeneity on recommendation agent choice. Further investigation into preference heterogeneity is another extension of this research.

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## Appendices

### Appendix A

#### Participant Response Items

All of the following questions were answered using a 7-point Likert scale, unless otherwise specified.

	Cronbach's Alpha
<b>Dependent Variables</b>	
<i>Perceived benefits</i> (average of 4 items)	.765
“belief that the listing is designed to help you make the best decision possible”	
“belief that the listing is designed to help you to avoid making a poor choice”	
“belief that the listing represents an accurate reflection of how experts/friends/others/I feel about the product”	
“belief that the listing represents an unbiased reflection of how experts/friends/other/I feel about the product”	
<i>Subjective decision quality</i> (average of 5 items)	.860
“how much you think you will like the product you chose”	
“level of interest in the product you chose”	
“how confident are you with the choice you have made”	
“how satisfied are you with the choice you have made”	
“how well you think the chosen alternative matched your own preferences”	
<i>Difficulty of task</i> (average of 3 items)	.779
“how difficult was the task of searching for a cell phone”	
“rate the amount of effort it took to complete the task of searching for and choosing a cell phone”	
“amount of time it took to search for a cell phone”	
“likelihood of using Shoppers Universe again”	
“likelihood of recommending Shoppers Universe to a friend”	
“how well you thought the listing met your expectations of helping you make a good decision”	
<b>Manipulation checks</b>	
Fill in the blank asking them whose preferences were used to generate the rankings in the list	



<i>Realism</i>	.905
“The web site Shoppers Universe was realistic”	
“The task of choosing a cell phone based on the preferences of the specified source was realistic”	
“The task of choosing a cell phone based on the preferences of the specified source was believable”	
<b>Potential Covariates</b>	
Fill in the blank asking them for their gender	
Fill in the blank asking them for their age	
<i>Subjective knowledge</i>	.820
“I know pretty much about cell phones”	
“I do not feel very knowledgeable about cell phones”	
“Among my circle of friends, I am one of the experts on cell phones”	
“compared to most other people, I know less about cell phones”	
“when it comes to cell phones I really don’t know a lot”	
<i>Information seeking tendency from others</i>	.751
“I often consult with other people to help me choose the best alternative available from a product class”	
“to make sure that I buy the right product or brand I often observe what others are using and buying”	
“if I have little experience with a product, I often ask my friends about the product”	
“I frequently gather information from friends and family about a product before I buy”	
<i>Experience with purchasing online</i>	
fill in the blank, “Number of products or services purchased during the last month over the Internet”	
fill in the blank, “Number of products or services purchased over the Internet during the last 12 months”	
“relative to your classmates, how much do you purchase online.”	
<i>Experience with Internet searches</i>	
fill in the blank, “During the last 12 months, how many products did you conduct <i>searches</i> for over the Internet”	

## Items from Triandis and Gelfand's I-C Scale with a Factor Loading of .40 or Greater

Item	Factor loadings
<b>Vertical Collectivism</b>	
VC1: Parents and children must stay together as much as possible.	0.61
VC2: It is my duty to take care of my family, even when I have to sacrifice what I want.	0.60
VC3: Family members should stick together, no matter what sacrifices are required.	0.52
VC4: It is important to me that I respect the decisions made by my groups.	0.45
<b>Horizontal Collectivism</b>	
HC1: If a coworker gets a prize, I would feel proud.	0.67
HC2: The well-being of my coworkers is important to me.	0.64
HC3: To me, pleasure is spending time with others	0.61
HC4: I feel good when I cooperate with others.	0.49
<b>Vertical Individualism</b>	
VI1: It is important that I do my job better than others.	0.59
VI2: Winning is everything.	0.56
VI3: Competition is the law of nature.	0.53
VI4: When another person does better than I do, I get tense and aroused.	0.45
<b>Horizontal Individualism</b>	
HI1: I'd rather depend on myself than others.	0.68
HI2: I rely on myself most of the time; I rarely rely on others.	0.66
HI3: I often do "my own thing."	0.55
HI4: My personal identity, independent of others, is very important to me.	0.40

Figure 1

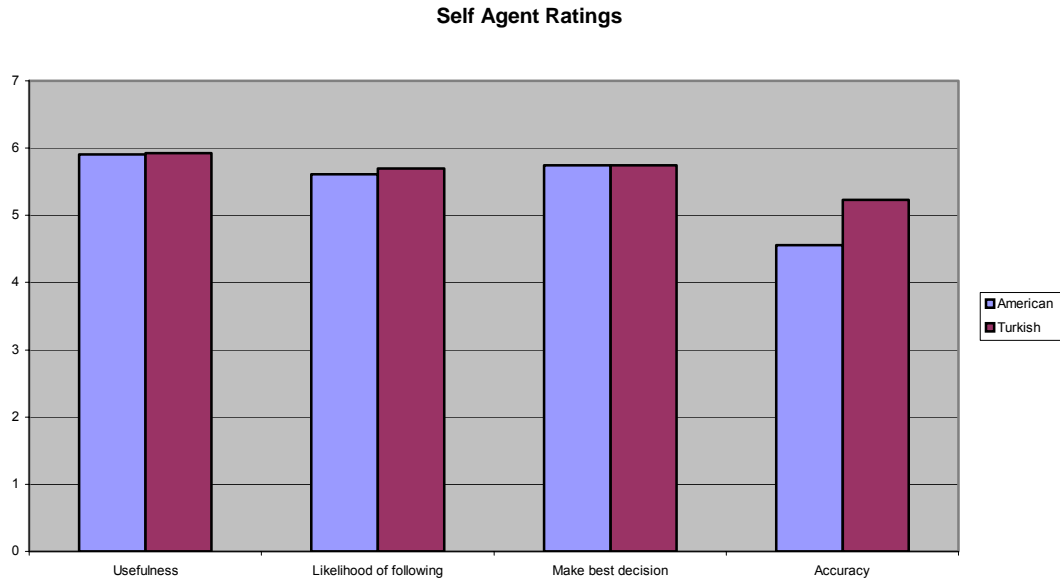


Figure 2

Expert Agent Ratings

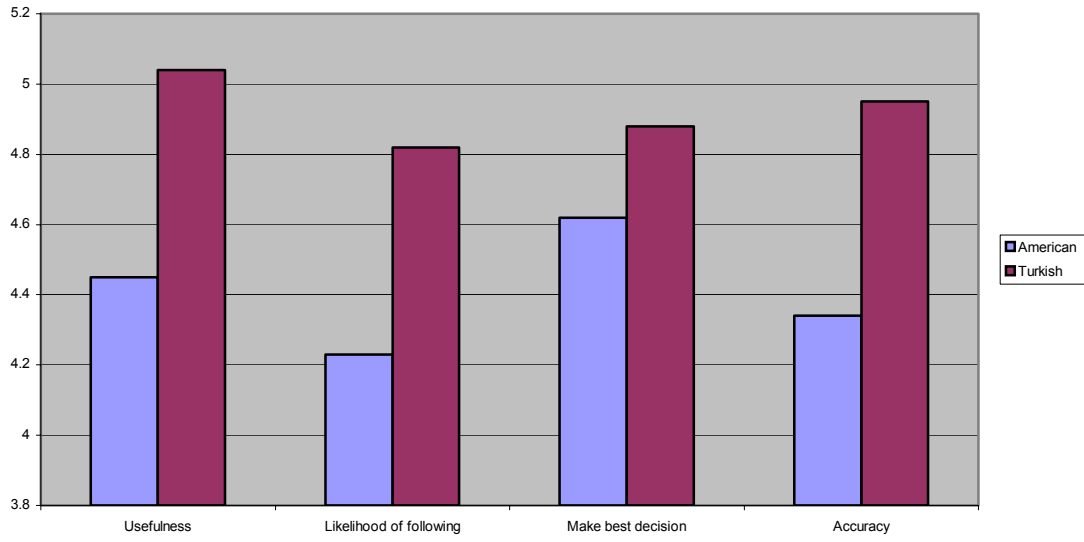


Figure 3

Collective Agent Ratings

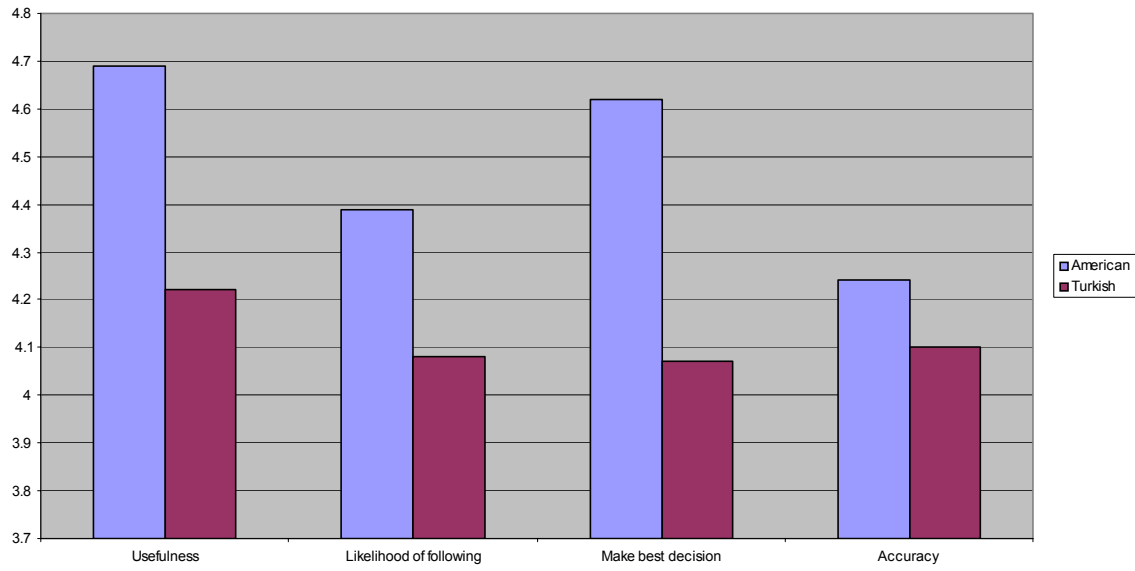


Figure 4

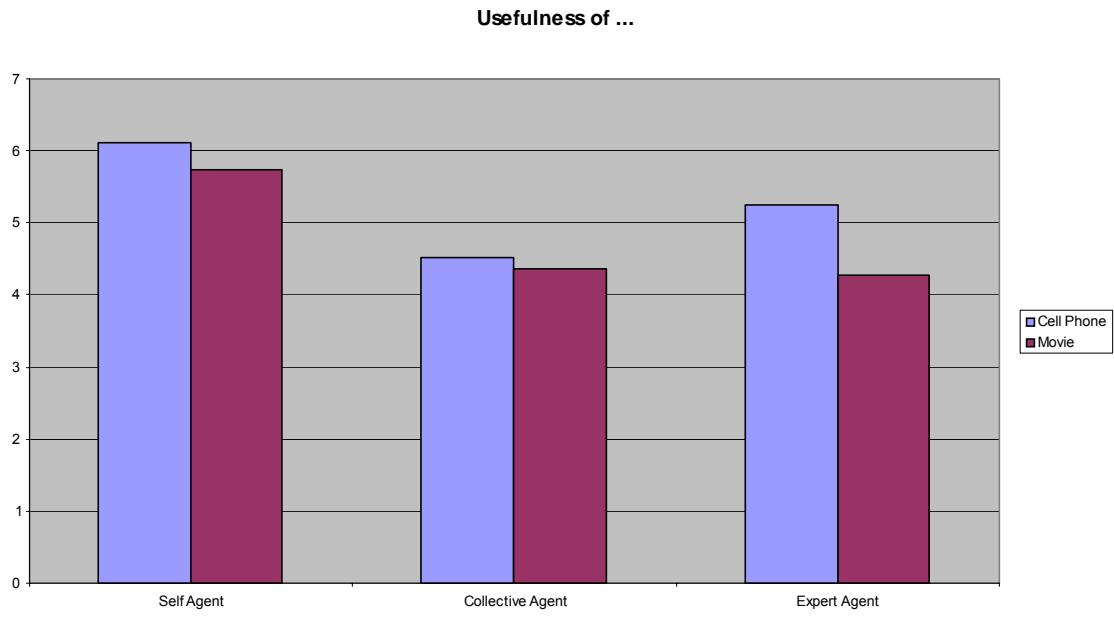


Figure 5

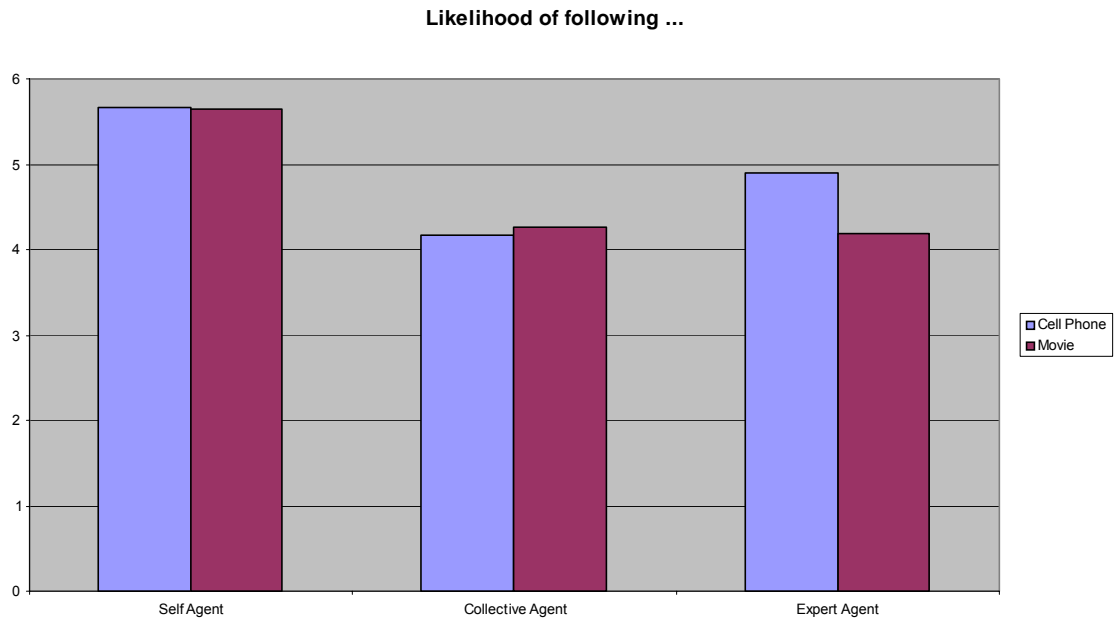


Figure 6

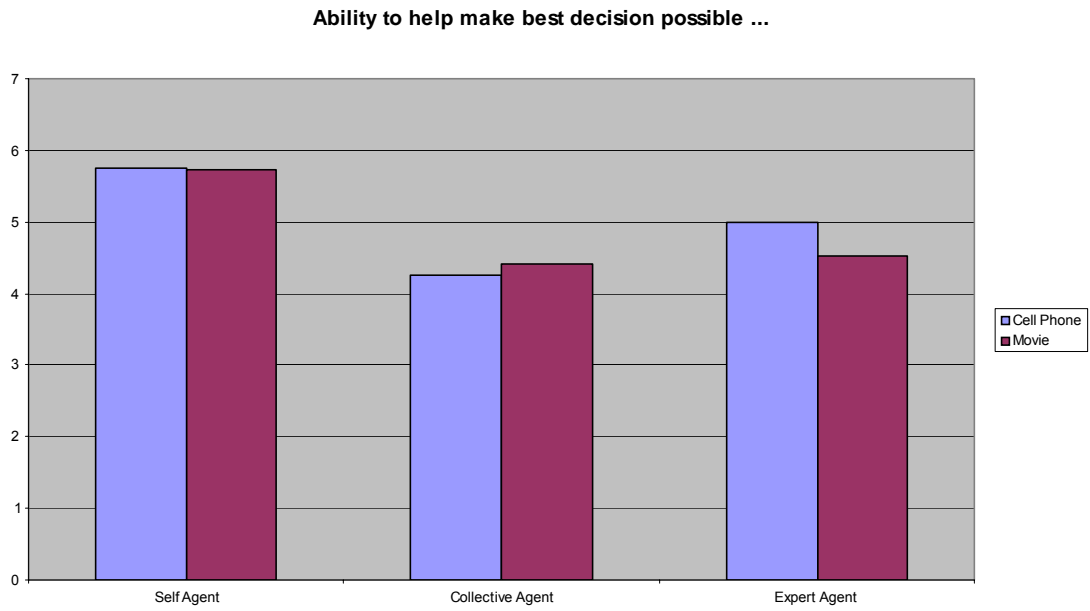




Figure 7

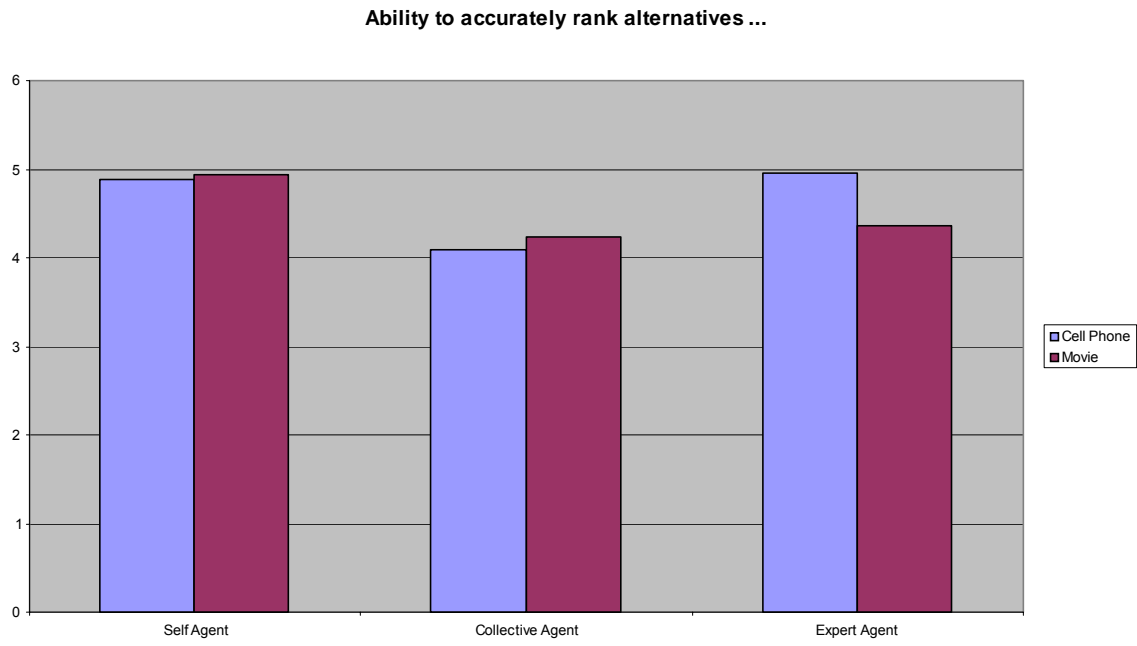


Figure 8

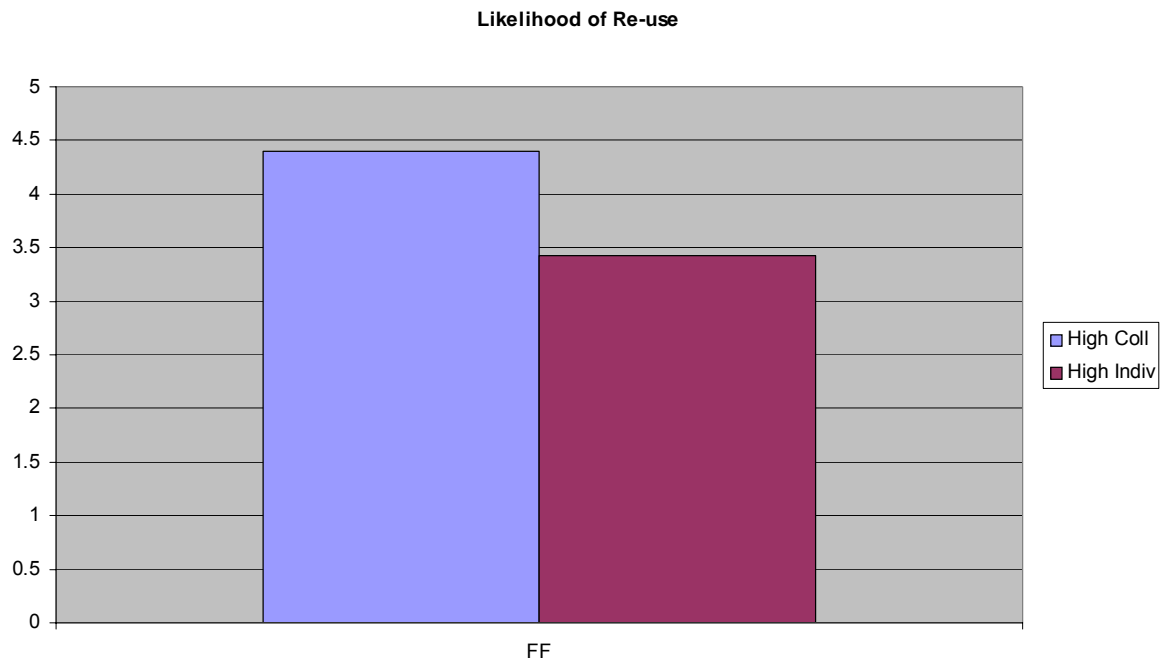


Figure 9

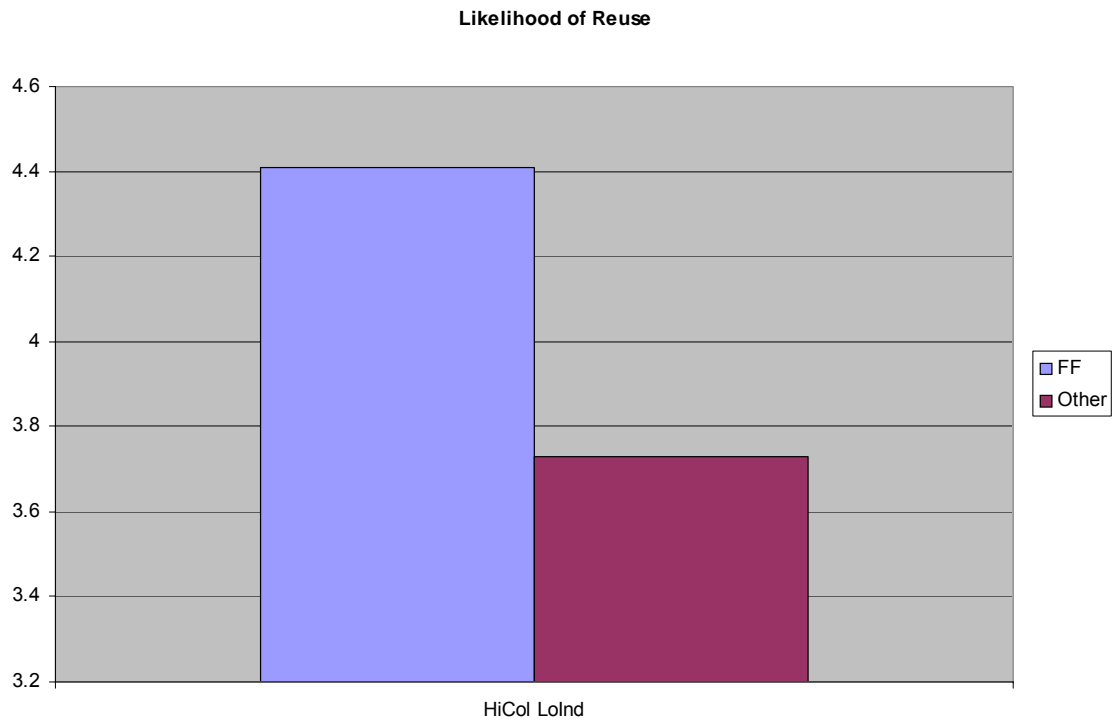


Figure 10

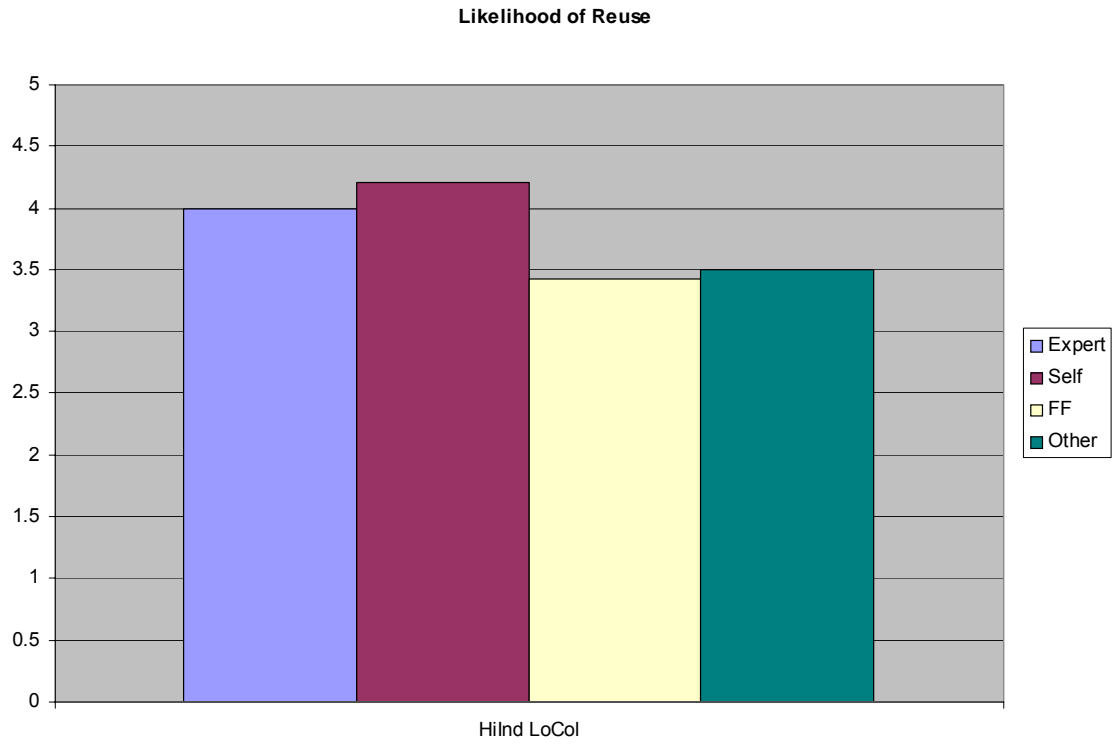
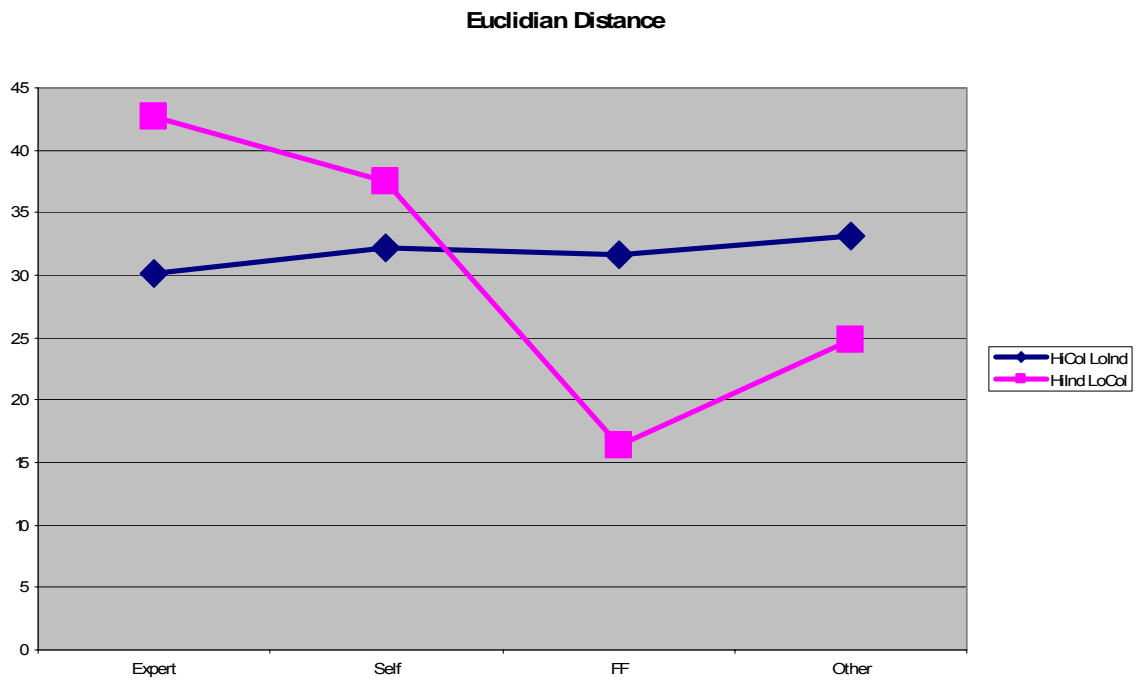


Figure 11



Assimilation and contrast effects of priming on product choices for oneself versus for other person

*Park Jongwon, Kim Kyeongheui, Kwak Junsik, Korea University*

## ABSTRACT

The present research investigated how a contextual factor (i.e., priming) influences product choices for oneself vs. for someone else (i.e., recommendation). Three experiments in which both *priming* (“wasteful” priming vs. control) and *decision focus* (self-choice vs. recommendation-choice) were manipulated, consistently demonstrated that the same priming decreased the likelihood of choosing a luxurious option (as opposed to a basic option) when the decisions were made for oneself, but increased the likelihood when the decisions were for someone else. However, this effect was restricted to the conditions under which participant’s knowledge about the product category was relatively high. Potential mediators of this effect and theoretical and managerial implications of findings are discussed.

[Click here for full paper Carolina hyperlink this to the attached file \(11a3assimilatin and contrast.pdf\) and then delete this last part](#)

A Proposed In- and Out-Group Model of Adolescent Daughter-Mother  
Consumption Interactions

*Shoham Aviv, Ruvio Ayalla, Gavish Yossi, University of Haifa*



## Abstract

Usually parents serve as role models for their children, who learn from them how to behave as consumers through socialization. Yet, today's culture and the mass media emphasize a youth ideal, leading individuals to attempt to look younger than they are. As a result and in contrast to the parent-child direction previously assumed, many mothers emulate their daughters and consume similar products in attempt to look younger. This phenomenon of children influence on consumption of products for use by parents is under-researched. Research on family consumption has focused mainly on children's influence on products relevant to them or to the family as a whole. To address this gap, this paper focuses on the mother-adolescent daughter-mother bi-directional relationship as driver of consumption as well as adding an external cultural influence to existing internal influences. This paper aims to develop a holistic approach extending existing knowledge on the mother-daughter relationships by integrating two in-group theories (consumer socialization, intergenerational influences) and one out-group theory (role models, accentuated by recent cultural changes emphasizing youthfulness). We focus on the influence that adolescent daughters have on the consumption behavior of their mothers for products that are used by the mothers, such as fashion products and cosmetics.

[Click here for the full paper – Carolina hyperlink this to the attached file \(aviv-mother-daughter.pdf\) and then delete this last part](#)

## **Session 11B (Spirit Dining Room)**

### **Affect and Self-Control in Decision Making**

Effects of Social Consumption on Individual Choice: Individual and Social  
Origins of Self-Control

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EFFECTS OF SOCIAL CONSUMPTION ON INDIVIDUAL CHOICE:  
INDIVIDUAL AND SOCIAL ORIGINS OF SELF-CONTROL

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Abstract

People incorporate preferences of others in their joint and even individual consumption decisions. The resulting choices may deviate from individual's own preferences. In this research, we focus on whether people make more "indulgent" choices than necessary when incorporating others' preferences. We develop *Social Consumption Model (SCM)* which postulates that, when options are consumed with others, people often infer other's preferences and self-control, and then, adjust their own decisions to maximize the experiential-utility of consumption. The results of an experiment designed to test our model provide empirical support to all the predictions derived from *SCM*. Our findings suggest that people perceive others to be more different and pleasure oriented than they actually are (false disparity effect) and these biased inferences lead to more indulgent choices (social indulgence effect).

# EFFECTS OF SOCIAL CONSUMPTION ON INDIVIDUAL CHOICE: INDIVIDUAL AND SOCIAL ORIGINS OF SELF-CONTROL

## INTRODUCTION

In many situations, individuals have to give up enjoying immediate pleasures for future rewards. Although decisions involving one's own consumption may be made at the individual level, the social nature of the consumption may facilitate or constrain a person's indulging in pleasure. For instance, individuals often claim to be "social drinkers" or "social smokers", indicating that in a social environment they engage in behaviors that they otherwise do not carry out or strictly avoid. This paper investigates the impact of others (involved in the consumption) on individual's tradeoffs between future rewards (FR) and immediate pleasures (IP). Preferences are formalized as an expression of the desired trade-off between IP and FR (e.g., she prefers not to eat sweets) and self-control as the discrepancy between such preferences and the actual behavior (e.g., she fails to refuse the chocolate cake). The paper focuses on the question of whether and how self-control or lack of it depends on social nature of consumption.

We introduce the Social Consumption Model (SCM) which postulates that, when options are consumed with others, people often infer other's preferences and self-control, and then, adjust their own decisions to maximize the experiential utility of consumption. To illustrate, consider a female selecting a contraceptive to consume jointly with her male partner(s). Suppose that, consistent with existing social norms, she values FR more than IP in her selection of a contraceptive, but she infers that her male partner values IP more than FR. A recent study by Lowe (2005) suggests that this woman is likely to compromise her risk-averse preferences by

seeking pleasure since sexual experiences are often not enjoyable to both when at least one of partners is dissatisfied. Consequently, although women make most contraceptive choices, men play an absent presence role within women's contraceptive decisions. Consistent with Lowe's (2005) results, Aribarg, Arora, and Bodur (2002) demonstrated that, in general, decision makers do accommodate others' preferences in their decisions by making concessions and expect others to do the same. According to the SCM, however, concessions to others are often asymmetric in a way to favor immediate pleasures, which we will call social-indulgence effect. Thus, within the context of the contraceptive choice example above, the social-indulgence effect implies that women make more concessions to accommodate men's preferences than vice versa because concessions for pleasure maximize the experiential utility of individual as well as the joint consumption. SCM postulates that, when social indulgence with others become repetitive, it also results in stable cognitive biases in the way people perceive themselves and others. For instance, people perceive others as more pleasure oriented and less self-controlled than they actually are and adjust their choices in the direction of social indulgence. In this paper, our empirical results demonstrate the biases in inferring other's preferences and their impact on individual decisions empirically within the context of contraceptive decision making task where partners have extensive joint consumption experiences. In an ongoing follow-up experiment, we focus on the more primitive source of social indulgence to explore whether the mere act of joint consumption in itself increases the impact of IP on decisions. For instance, two people with healthy individual eating habits may choose to eat less healthy when they consume the food jointly.

#### SOCIAL CONSUMPTION MODEL

Construal Level Theory (CLT) provides a unified framework for studying people's own and inferred responses of others (Trope & Liberman, 2003). CLT suggests that people represent

information at different construal levels. High-level construals are relatively simple, decontextualized representations that extract the gist from the available information. Low-level construals, however, contain more concrete, contextual, detailed, and emotion laden information. Therefore, judgments based on information from higher construal levels are less, but judgments based on lower construal level information are more prone to temptations. In the context of time inconsistent choices, Trope and Liberman (2003) show that people use lower construal level information to make proximal-future judgments and thus value immediate outcomes more, but use higher construal level information to make distant-future judgments and thus value future outcomes less. Previous research also suggests that people use lower construal level information in judging themselves, but higher construal level information in judging others (for a review, see Robins, Spranca, & Mendelsohn, 1996).

SCM builds on CLT, but differs from it in number of ways. First, although CLT assumes different representation of construal level for self and others within a person, SCM predicts that with increased shared consumption experiences, self and others' actual choices both are stored at the lowest construal level. This is because the decision maker's self-interest in accommodating other's preferences to maximize his/her own experiential utility increases the similarity of the choice information for self and others. Consequently, *actual individual-level-choices of partners based on lower construal information become similar with increasing joint consumption experiences (P1)*.

Secondly, building on person perception theory, SCM postulates that abstraction of information from lower construal levels to higher construal levels behaves selectively for self and others to maximize the difference between the self and other(s), resulting in a contrast effect (Korniol, 2003; Markus & Smith, 1981). Contrast effect is stronger if the consumption partners

belong to different reference groups with opposite desired-states or norms (Park & Lessig, 1977). As a result, the highest construal levels contain the most abstract information (such IP or FR orientation of the person) that maximizes the difference between the self and others (Semin & Fiedler, 1988). As a result, an individual's own choices may reflect more FR orientation and her prediction of her partner's choices may reflect more IP orientation if the reference group norms for self and other are, respectively, FR and IP orientation. Given that higher construal levels are used more in judging others than self, SCM predicts a normative effect: *Inferred responses of others deviate from other's actual responses in the direction of social norms (P2)*. Note however that, normative social effects (or stereotype effects) are symmetric; that is, inferred responses will deviate from the actual responses of others in the direction of the perceived desired-state for the other person regardless of whether the desired state favors IP or FR.

Finally, SCM argues that people focus on consumption experiences more in making decisions for joint than for individual consumption and emphasis on consumption experiences increases the role of IP-related outcomes on decisions (Hsee, 2003). Consistent with the actor–observer differences reported in social psychology (Jones & Nisbett, 1972), however, proposed model suggests that choice and consumption of pleasure is attributed more to others' fundamental values (e.g., what is important to that person) than situational lack-of self-control whereas reverse is true in the assessment of the self. Consequently, similar to CLT, proposed model postulates that importance beliefs for attributes of choice options for a person are relatively higher construal level information, and therefore, are less prone to the temptation effects than choices (Barlas, 2003); however, inferred importance beliefs of others are more likely to lead to temptation because choice of pleasure in joint consumption is more likely to be attributed to others' values. Thus, motivated by the biased nature of causal attributions to explain

the pleasurable choices and consumption, our model predicts that *others are perceived as more pleasure oriented than they actually are (P3)*. For instance, a male may predict his female partner as more FR oriented than himself because of the normative effects, however, his predictions of her will still be more pleasure oriented than his partner's own judgments of herself because of the biased nature of causal attributions.

The predictions (*P1, P2, and P3*) based on SCM above lead to following three proposed effects: (1) *False-Disparity Effect*: *P1, P2, and P3* jointly suggest that people perceive others to be different from themselves and more pleasure oriented than they actually are. SCM also predicts that false-disparity effect is more pronounced for FR-oriented individuals: FR-oriented individuals perceive IP-oriented individuals far more pleasure oriented than they actually are because attribution and normative biases work in the same direction. In contrast, IP-oriented individuals show less false-disparity in their perception of FR-oriented individuals because normative (favoring FR) and attribution (favoring IP) biases work in opposite directions. (2) *False Self-Control*: Resulting from the false-disparity effect above, IP-oriented individuals are perceived as less self-controlled subjectively despite that they display greater self control objectively than FR-oriented individuals (i.e., greater congruence between their preferences and choices). (3) *Social Indulgence Effect*: Biased inferences of other's preferences and self-control increase the impact of IP on decisions: FR-oriented individuals adjust their choices in the direction of IP much more than they should and IP-oriented individuals do not adjust their preferences in the direction FR as much as they should. The net result is riskier and less FR oriented choices.

## METHODOLOGY



We tested the predictions of the proposed model using a contraceptive decision making task. Participants were 100 undergraduate students (45% female, ages 18-35) at a major Canadian university. The contraceptive decision making task is relevant to our sample and it allows us to study the impact of others' preferences on individual's choices by capitalizing on existing gender stereotypes (i.e., males are more IP oriented and females are more FR oriented). We adopted an experimental paradigm frequently used in false-consensus research: Participants chose among ten commercially available contraceptives according to their own preferences. Next, participants distributed 100 points among ten attributes describing the contraceptives (five FR and five IP-related attributes) according to their importance. Following the suggestions in the literature that importance beliefs are less prone to temptation effects, we used these ratings to estimate individual level preferences. Participants repeated the choice-importance ratings tasks for their partner and for a typical member of the opposite sex. At the end, participants provided ratings of the value of pleasure, self-control, and willingness to concede for oneself, the partner, and a typical member of the opposite sex.

We also manipulated the construal level from which participants might pull information to make choices. In the low-construal condition, participants evaluated the contraceptives with their actual labels (e.g., condom vs. pill), which increased the availability of detailed prior consumption experiences and emotional responses. In the high-construal condition, however, participants evaluated the same descriptions without the actual labels (e.g., method A vs. method B), which led participants to use higher construal level information (e.g., importance beliefs) in their decisions.

## RESULTS

### False-Disparity

Data confirm the false-disparity prediction as shown in Table 1. The first row in the table presents the false-disparity at the highest construal level. These figures are calculated from participants' ratings of themselves and a typical member of the opposite sex<sup>5</sup> on a scale ranging from 20 (completely IP oriented) to 0 (completely FR oriented). Actual disparity presented in the first column is the mean difference between the self ratings of males and females. The second and third columns contain the differences between the self and the perception of other for IP and FR-oriented individuals, respectively.

According to data, males are 1.02 points more IP oriented than females; however, this difference is not statistically significant according to the repeated measures ANOVA where self vs. other ratings are the repeated factor and the gender is the classification variable. That is, males and females are not different in their self-perception with respect to IP or FR orientation. However, data strongly support the prediction that, despite this similarity in actual responses, people perceive others more different and more pleasure oriented than they actually are and this discrepancy is larger for FR-oriented individual as indicated by a significant self vs. other effect ( $p < .0001$ ) and self vs. other by gender interaction ( $p < .0001$ ). According to males, females are as much pleasure oriented as themselves. However, females perceive males far more pleasure oriented than they actually are.

The second row in Table 1 presents the false-disparity with respect to preferences. Here, we analyze the importance allocated to IP-related attributes by the participants rather than some form of distance measure between preferences of males and females to avoid aggregation biases since the data do not come from actual dyads. For the same reason, the ratings are standardized

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<sup>5</sup> We use participants' inferences for typical opposite sex as "other" in all of our analyses because (1) almost 40% of participants do not have regular partners, (2) most contraceptive decisions are made by females before they know much about their partners (Lowe, 2005), and (3) we analyze population means rather than matched responses of dyads.

within each participant (mean=0, std. dev.=1). Similar to earlier results, the data suggest that males and females do not differ significantly in the importance assigned to IP-related attributes although males appear to assign more importance to pleasure than females. However, the differences between self and other's inferred importance for pleasure are highly significant ( $p < .0001$ ). Consistent with predictions, the direction of the differences indicates that other's preferences are perceived as more pleasure oriented than preferences of self. There is also significant self vs. other by gender interaction suggesting that false-disparity is due to responses of females, the FR-oriented group ( $p < .0001$ ).

These results confirm the false-disparity prediction at higher construal levels. Note that stronger support for the SCM would be a finding that false-disparity disappears with choices because lower construal level information is shared among consumption partners and the choices are already adjusted in the direction of perceived false differences. Therefore, we analyzed the standardized beta coefficients for IP-related attributes that are estimated from subjects' choices by using incomplete-principle-component-regression. Since repeated measures ANOVA indicated significant effects of construal-level manipulation ( $p < .001$ ) on standardized beta coefficients, the results are presented separately for high (third row) and low (fourth row) construal levels conditions. Consistent with our theoretical model, the false disparity perceived by females weakens but still present in high-construal level condition when participants made their choices among contraceptives with arbitrary labels. However, false disparity completely disappears or even reverses in the low construal condition when participants chose among contraceptives with their actual labels. Altogether, these results provide strong support for the view that people perceive others more IP oriented than they actually are, and adjust their choices in the direction of these false perceptions.

## False Self-Control

The fifth row in Table 1 presents subjective self-control perceptions for self and others. The data is the participants' ratings of the statement "In most situations involving sex, I can control myself and I do not give into temptations easily" on a scale ranging from 1 (completely disagree) to 5 (completely agree). Participants' ratings of the statement "In most situations involving sex, I believe women are better at self-control than men" on the same scale provided the self-control perception for others. Again, data suggest false-disparity effect in self-control perceptions. In general, females perceive themselves as more self-controlled than males do; however, this difference is not statistically significant. In contrast to this actual similarity, participants perceive others as less self-controlled than they actually are ( $p < .001$ ); but this difference is mainly due to the large false-disparity perceived by females as indicated by a significant self vs. other by gender interaction ( $p < .0001$ ). Figures 1 and 2 present the results pertaining to the objective self-control. On the y-axis are the Spearman correlation coefficients between the points allocated to each attribute in importance assessment task and the standardized beta coefficients estimated for each attribute from participants' choices. Overall, ANOVA suggests a significant gender by social distance interaction as shown in Figure 1 ( $p < 0.05$ ) where the dependent variable is the correlations after Fisher's z transformation. Predicted gender differences are obtained for subjects with sexual experience regardless of whether they have causal or regular partners. However, participants with no previous sexual experience demonstrate the opposite pattern of results where females exhibit more self control than males. Objective self-control also varies as a function of construal-level manipulation. As presented in Figure 2, lack of self-control is significantly less in high construal condition than in low-construal condition ( $p < .001$ ).

## Social Indulgence

False-disparity and self-control results already confirm the social indulgence effect. To provide more direct evidence, we analyzed the direction in which standardized beta coefficients estimated from choices deviate from the importance points reflecting preferences. To make the scales comparable, we calculated the differences between the rank position of the attributes (from the most influential to least influential) in choices and preferences separately for IP (indicating increased impact of immediate pleasure on choices relative to preferences) and RF (indicating increased impact of future outcomes on choices relative to preferences). Note that, if an attribute becomes more important in choices relative to preferences, another attribute has to become less important because of the nature of the ranking data. In general, data suggest that coefficients for IP-related attributes increased significantly more in their rank position than FR-related attributes ( $p < .006$ ) according to the repeated measure ANOVA where IP vs. FR related changes is the repeated factor. Also, as predicted, impact of IP –attributes on choices increased more when choices were based on lower construal information than higher construal information ( $p < .03$ ). Although means were in the predicted direction, differences between males and females were not significant partly because of the rather conservative nature of the analysis.

## CONCLUSIONS

Our results are consistent with a large body of literature suggesting that internalized or perceived views of others influence individual's evaluation of what is desirable. Most previous research focused on normative or informational social influences on decisions (Ariely & Levav, 2000; Bearden & Etzel, 1982). “Experiential Social Effects” suggested by the SCM is relatively new, and to the best of our knowledge, our paper is the first systematic investigation of these effects. According to the SCM, maximizing experiential utility of consumption becomes more

salient in individual decisions when options are consumed together with others. Emphasis on consumption increases the role of IP-related outcomes on decisions (Hsee, 2003). However, SCM also argues that joint-consumption affects both the way self and others are perceived and the way the information about self and others is represented. Consequently, above experiential social effects turn into stable cognitive factors overtime influencing both people's inferences of others' preferences and the way people allow other's preferences influence their own choices. Data provided clear support for predicted role of these cognitive biases by the proposed model in explaining social indulgence effect. For instance, people appear to perceive others more pleasure oriented and less self-controlled than they actually are. These inaccurate perceptions increase the impact of IP on decisions.

In an ongoing follow-up experiment, we focus on another source of social indulge that is primitive to the biases demonstrated by the current paper. Namely, we test the hypothesis that the mere act of joint consumption in itself increases the impact of IP on decisions. For instance, two people with healthy individual eating habits may choose to eat less healthy when they consume the food jointly. Furthermore, social indulgence may also results from array of other more motivational sources such as justification or in some cases, from strategic thinking (e.g., IP related outcomes might be common goal but FR-related outcomes might be individual specific goal). We plan to investigate the role of motivational and strategic factors in social indulgence in future research.

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Table 1

*False-Disparity*

	Actual Disparity (male-female)	Disparity for IP Individual (male-inferred female)	Disparity for FR Individual (female-inferred male)
Perceptions	1.02	-.09	-5.93*
Preferences	.29	.24	-3.84*
Choices (High Construal)	.01	.08	-.35*
Choices (Low Construal)	-.20	-.09	.19
Self-Control	-.14	.00	1.98*

\*Statistically significant effects ( $p < .05$ ).

Figure 1

*Objective Self-Control as a Function of Social Distance and Gender*

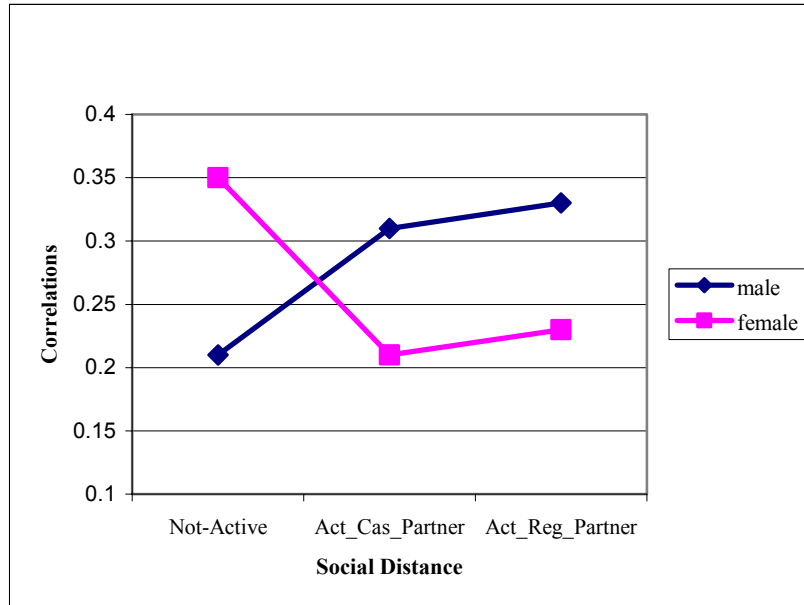
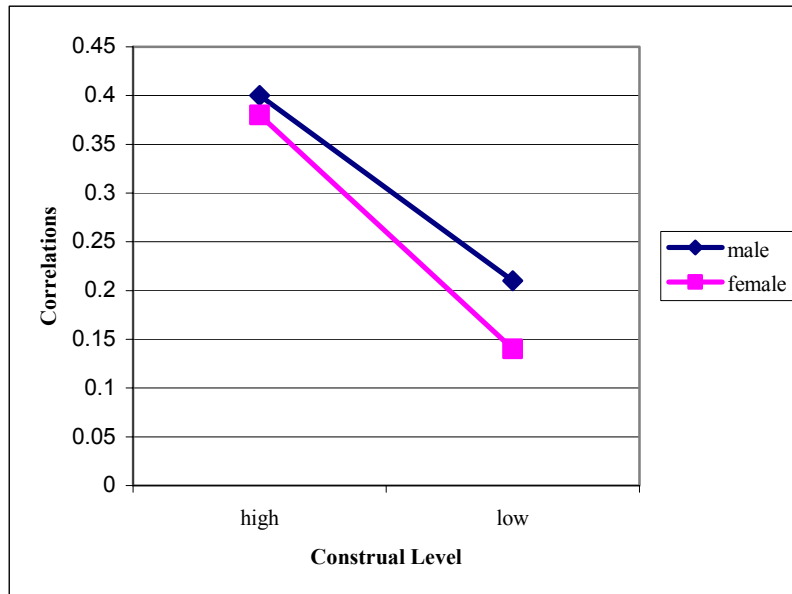


Figure 2

*Objective Self-Control as a Function of Gender and Construal Level Manipulation*



Is Goal Activation Enough? Implications for Conscious Self-Control Processes  
*Walsh, Darlene, Mitchell Andrew, University of Toronto*

IS GOAL ACTIVATION ENOUGH?  
IMPLICATIONS FOR CONSCIOUS SELF-CONTROL PROCESSES

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## Abstract

We investigate whether the automatic activation of an overriding long-term goal is sufficient for successful self-regulation. We find that although restrained eaters likely have the goal of dieting, not all restrained eaters automatically activate this goal when primed with a specific food temptation. In fact, we found that an individual can consider themselves to be a restrained eater and show very little, if any, overriding goal activation.

We also report that when exposed to a real temptation, participants who automatically activate the goal of dieting consume more under a cognitive load. We interpret the results to suggest that goal activation may not always be enough to result in successful self-regulation, and consequently conclude that conscious self-control processes may also be required to successfully resist a temptation.

We also investigate the role of implicit evaluations towards specific temptations (i.e. cookies and chocolate) and conflicting long-term goals (i.e. diet). We find that exhibiting a positive implicit evaluation towards the long-term goal of dieting did not facilitate self-control efforts under a high cognitive load, which suggests that a positive implicit evaluation of dieting alone does not always guarantee successful self-regulation. All restrained eaters show a strong positive implicit evaluation towards the temptation.

## IS GOAL ACTIVATION ENOUGH?

### IMPLICATIONS FOR CONSCIOUS SELF-CONTROL PROCESSES

Self-control problems are central to many economic and social phenomena. For example, whether we get addicted to alcohol or drugs, how much we under save, how much we overeat, and whether we procrastinate are often the consequences of unsuccessful self-control. Although some individuals are very successful in their self-control efforts in the face of temptations, others simply find themselves time and again failing to regulate their behaviours. An important challenge in consumer research is to develop a greater understanding of the processes underlying successful self-control.

Some researchers argue that when faced with temptations, some people consider their long-term goals, evaluate the costs associated with the short-term temptation, review different self-control strategies and select the most effective one (e.g. Trope & Fishbach, 2000). However, it is plausible that with frequent and successful applications of control strategies, people may develop efficient ways of anticipating certain self-control problems, accessing appropriate control strategies and applying them (see the auto-motive model by Bargh, 1990). Self-control may thus become a well-practiced skill, and at least some forms of control may require very little, if any, conscious intention.

Evidence for such automatic self-control has been recently obtained by Fishbach, Friedman and Kruglanski (2003). These researchers have suggested that exposure to short-term temptations may automatically activate one's long-term goals and consequently prevent these temptations from affecting one's behaviour. For example, tempting food primes may activate a diet goal among restrained eaters, and make these individuals more resistant to subsequent temptations i.e. more likely to choose a healthy snack over a fatty snack (see Fishbach et al.,

2003; Trope & Fishbach, 2004 for more). The role that implicit affective evaluations play in self-control is also closely linked to the above research. For example, research in implicit motivation has demonstrated that the activation of a goal automatically increases the positivity of implicit evaluations towards goal-relevant objects when a person is actively engaged in a goal pursuit (Ferguson & Bargh, 2004). Drawing on this literature, Fishbach (2004) has suggested that restrained eaters, relative to unrestrained eaters, associate positive implicit evaluations with the goal (e.g. *slim, diet, thin, fitness and exercise*) and negative implicit evaluations with the temptations (e.g. *chocolate, cake, cream, chips and sweet*).

### MOTIVATION FOR PRESENT RESEARCH

The research highlighted above suggests that some people may exert self-control automatically (Fishbach et al., 2003), while others may have to consciously resist (Trope & Fishbach, 2000). However, what is unclear is whether the activation of one's long-term goal is *always* enough to successfully resist the temptation. We also don't know whether temptations are activating an automatic self-control process or whether conscious resources are also required. Furthermore, research examining implicit evaluations of temptations and goals is still emerging, and no study to date has examined implicit evaluations and automatic goal activation in a single study. Thus, we incorporate both of these theoretical approaches to better understand self-control processes in the research described below. And rather than focusing on more general temptations and goals, we focus on a specific self-control dilemma among only restrained eaters: the ability to resist fattening foods. Specifically, we expose participants to a real temptation (i.e. a tray of chocolate chip cookies), and measure their consumption patterns.

### METHOD

#### Design



A 2 (goal activation: overriding goal activations vs. no overriding goal activation) X 2 (cognitive load: high vs. low) between-subjects design was employed.

### Participants

Based on the Dietary Restraint Scale – Revised (Herman & Polivy, 1980), a total of 44 restrained (mean restraint score = 18.66, SD = 3.10) female undergraduates participated in the experiment in return for bonus course credit towards an introductory psychology course at a large eastern university.

### Overriding Goal Activation

In this study, we assess goal activation by measuring the level of activation of a construct representing a long-term goal following the subliminal presentation of a construct representing a short-term temptation (Fishbach et al., 2003). When an individual is faster to respond to the goal when subliminally primed with a related temptation (e.g. cookie primes diet), compared to an unrelated temptation (e.g. drugs primes diet), we argue that the overriding long-term goal is automatically activated. In other words, we conceptualize *overriding goal activation* as the difference between temptation-goal activation when the primed temptation is related to the goal and when the primed temptation is unrelated to the goal.

In this study, we employ a lexical decision task to measure temptation-goal activation: specifically, participants are asked to decide as quickly as possible whether a letter string is a word or a nonword. Overall, the lexical decision task included 208 trials separated into 4 blocks. The specific timing of events for each block was as follows. First, the message “Press the space bar when you are ready to begin block X” is shown, where X represented the current block number (namely 1, 2, 3 or 4). Once they pressed the space bar, there was a 300ms blank field followed by a cross fixation point in the middle of the screen for 300 ms. The prime remained

on the screen for 15 ms, followed by a string of XXXs for 20ms. There was another 70 ms blank field followed by the presentation of the first stimulus, which was either a word or a nonword.

The critical subliminal primes in this study consisted of relevant temptations (i.e. chocolate and cookies) and irrelevant temptations (i.e. sex and drugs). The critical target words were all related to dieting (i.e. diet, thin, slim, and fit). Each temptation-goal combination appeared once, making 16 combinations overall. Within each block, 4 critical trials were randomly embedded within other trials in which 22 irrelevant targets (e.g. daily), 13 nonword targets (e.g. phuij), and 13 pseudohomophones (e.g. nite) were presented. In addition, the first 8 trials of each block were practice trials.

#### Implicit Evaluations

We use an evaluative priming procedure to examine implicit evaluations of goal-related and temptation-related words (Bargh, Chaiken, Gendler & Pratto, 1992; Fazio, Jackson, Dunton & Williams, 1995). In our study, participants are asked to judge whether a target is positive or negative after being subliminally primed with either a temptation or a goal. For example, if an individual is faster to respond to a positive target when primed with a temptation (e.g. cookie primes love) relative to a negative target (e.g. cookie primes disease), then we can argue that this person has more positive implicit evaluation of the temptation (e.g. cookie). Similarly, if an individual is faster to respond to a positive target when primed with a goal (e.g. diet primes love) relative to a negative target (e.g. diet primes disease), then we can argue that this person has a more positive implicit evaluation of the goal (e.g. diet).

The evaluative priming task in this study included 160 trials separated into 2 blocks. The specific timing of events for each block was identical to that of the lexical decision task described above. The stimulus would remain in the middle of the screen until participants

categorized the item as a positive or negative. The critical goal-related prime was *diet* and the temptation-related primes were *chocolate* and *cookies*. Each temptation prime had 6 positive and 6 negative observations, making a total of 12 positive and 12 negative. The goal prime had 12 positive and 12 negative observations. Between each critical trial, we presented 2 irrelevant primes (e.g. context) in case there were any residual effects of either our goal or temptation words.

### Procedure

Upon arrival, participants were led to believe that they would be completing 3 unrelated studies. In “study one”, they were told that the researcher is interested in how information is stored in memory. Under this guise, they were given instructions on how to perform the lexical decision task, which actually measured their temptation-goal activations.

Following the lexical decision task, participants received instructions for the “second study”. The participants were told that the researcher is interested in how positive and negative memories are connected in human memory, and that they were going to see a list of positive and negative words. Under this guise, they were then given instructions on how to perform the evaluative priming task, which actually measured their automatic evaluations of goals and temptations.

After the evaluative priming task, participants were told that the computer in the current room did not have the software needed for the “third study”, so they needed to switch rooms. A tray of chocolate chip cookies was placed in the second room, and when the participant walked in the room, the experimenter explained that the cookies were leftovers from a party held earlier in the day and that, if they want, they should feel free to grab snacks. Once seated in the different room, the participants were given the instructions for the “third study”. They were told

that the researcher is interested in learning the effects of random numbers on subsequent judgment tasks and that they would first be shown a randomly computer-generated number that will remain on the computer screen for 30 seconds. Under this guise, participants are actually given the cognitive load manipulation i.e. they are given a 7-digit number in the high-cognitive load condition or a 2-digit number in the low-cognitive load condition. The participants were told that after the 30 seconds, the screen would go blank for about 2 minutes, and that after the 2 minutes a prompt would ask them to type in the number memorized. After correct recall, they would be required to answer a number of trivia-like questions to support the cover story e.g. the chances of a white Christmas in New York. After the experimenter explained the “third study” to each participant in its entirety, he/she claimed that they forgot some forms in the other room. The experimenter then instructed the participant to start the experiment while he/she left for a few minutes to retrieve the forms, leading the participant to believe that they were alone in the room for the 2 minutes that they were required to memorize the digit. In reality, our main dependent measure was the amount of self-control exhibited under the two cognitive load conditions based on the amount of cookies (in grams) each participant consumed. Finally, we used a funneled debriefing procedure similar to Bargh and Chartrand (2000) to check for awareness, and then debriefed the participants about the nature of the research.

## RESULTS AND DISCUSSION

### Do All Restrained Eaters Automatically Activate the Diet Goal?

To reiterate, we conceptualize *overriding goal activation* as the difference in reaction times between the temptation-goal association with an unrelated temptation prime (e.g. drugs-diet) and the temptation-goal association with a related temptation prime (e.g. cookie-diet).

Using this approach, we found that although restrained eaters likely have the goal of dieting, this

does not imply that *all* restrained eaters automatically activate this goal when faced with a primed food temptation. In fact, we found that almost half of our female restrained eaters (19 out of the 44 participants) did not show overriding goal activation when primed with specific temptations (e.g. chocolate and cookie).

### Is Activation Enough?

We also found that overriding goal activation is not always enough to result in successful self-regulation, and consequently conclude that temptations are not always activating an automatic self-control process. Specifically, under low cognitive load, restrained individuals with goal activation consume an average of 9.40 grams of cookies, whereas restrained individual without goal activation consume an average of 24.43 grams of cookies, suggesting that indeed goal activation helps self-control efforts. However, when placed under high load, both groups consume about the same. More specifically, restrained individuals with goal activation consume an average of 26.80 grams of cookies, whereas restrained individual without goal activation consume an average of 22.25 grams of cookies. We interpret the results to suggest that goal activation may not always be enough to result in successful self-regulation, and consequently conclude that conscious self-control processes may also be required to successfully resist a temptation.

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Insert Figure 1 about here

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### The Role of Implicit Evaluations towards Temptations and Long-Term Goals

We also investigated the role of implicit evaluations towards temptations (i.e. cookies and chocolate) and conflicting long-term goals (i.e. diet). Interestingly, restrained eaters that do not

show overriding goal activation do not have a strong positive implicit attitude towards dieting, relative to other restrained eaters that exhibit patterns of overriding goal activation. At this point, however, we do not know whether thinking positively about dieting promotes self-control efforts, or whether being successful then creates the positive implicit evaluation. What is also interesting about this finding is that exhibiting a positive implicit evaluation towards dieting did not facilitate self-control efforts under a cognitive load, again suggesting that conscious self-control processes may be required to be successful. All restrained eaters show a strong positive implicit evaluation of temptations (see Table 1 for difference scores by overriding goal activation).

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Insert Table 1 about here  
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#### WHAT DOES THIS RESEARCH CONTRIBUTE TO THE LITERATURE?

The present research makes important contributions to the literature. We find that although restrained eaters likely have the goal of dieting, not all restrained eaters automatically activate this goal when primed with a specific food temptation, contrary to previous research findings (Fishbach et al., 2003). It might be suggested that some individuals simply do not find cookies tempting, which might be able to account for our findings. However, this explanation seems unlikely since individuals without overriding goal activation show positive implicit evaluations towards the temptations. Alternatively, the difference in findings might be because we consider specific temptations, and the primed temptations used in previous studies have been more general.

We also find that restrained individuals with goal activation nevertheless succumb to temptation when placed under high cognitive load. These results suggest that goal activation may not always be enough to result in successful self-regulation and that conscious self-control processes may also be required. More generally, this finding implies that the mere activation of a competing goal does not necessarily lead to its pursuit. And finally, we find that exhibiting a positive implicit evaluation towards dieting among those who do have overriding goal activation does not facilitate self-control efforts under a high cognitive load, which suggests that a positive implicit evaluation of dieting alone does not always guarantee successful self-regulation.

Taken together then, it is possible that when successful restrained eaters are exposed to the temptation, they automatically evaluate the temptation as positive, activate the overriding diet goal, and consequently evaluate dieting also as positive. Thus, in order to be successful, the individual does not need to deny how good the temptation is, but does need to quickly make salient the fact that temptations are contrary to their long-term goal. We found that this type of self-control process however, requires conscious resources – if such resources are not available, then self-control is unlikely.

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Table 1

*Mean Difference Scores (in ms) that Demonstrate Implicit Evaluations of Long-Term Goals and  
Conflicting Short-Term Temptations*

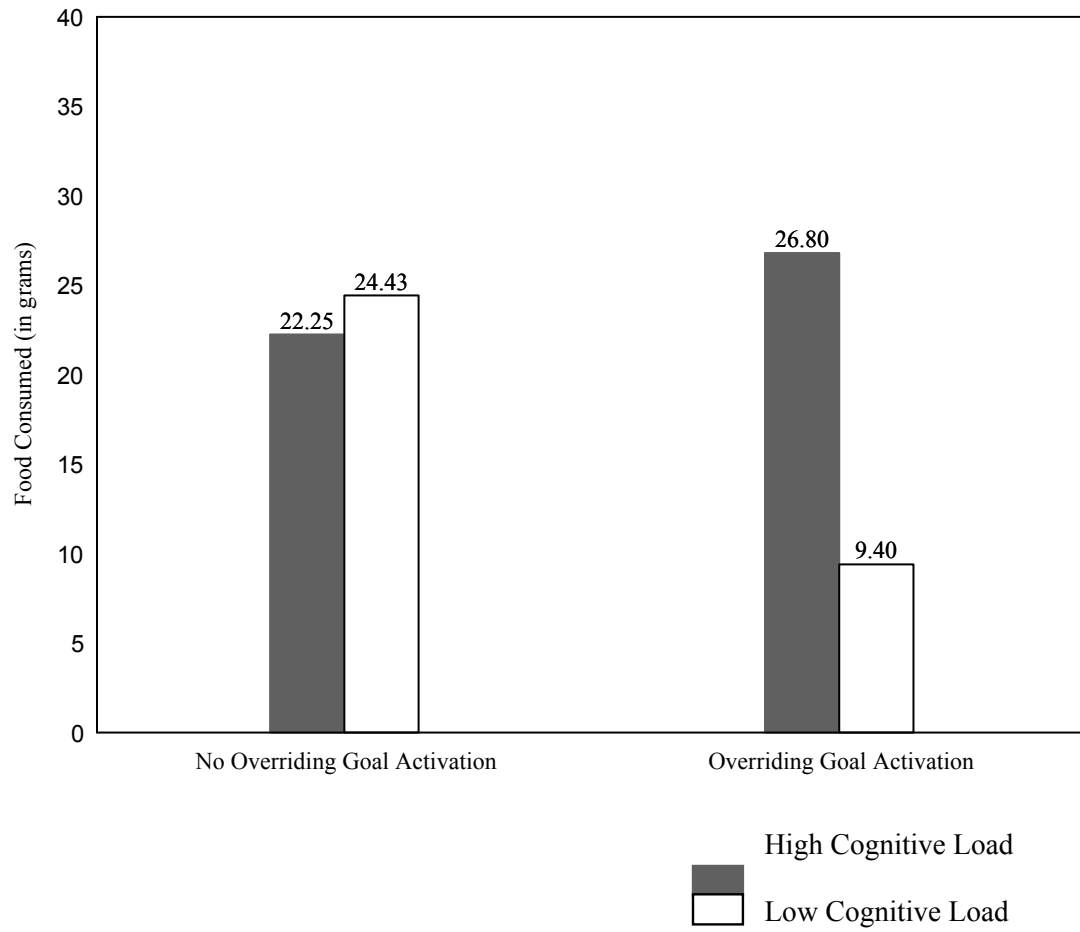
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	No Overriding Goal Activation	Overriding Goal Activation
Implicit Evaluations Towards Temptations (i.e. chocolate and cookie)	80.01	75.22
Implicit Evaluations Towards Long-Term Goal (i.e. diet)	31.17	87.24

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Figure 1

*Amount of Cookies Consumed (in grams) by Cognitive Load and Overriding Goal Activation*



Not all Desires are Created Equal: The Motivational Role of Consumption Urges as Automatically Triggered Appetitive Desires  
*Aguirre-Rodriguez Alexandra, University of Illinois at Urbana-Champaign*

Consumption urges are sudden, stimulus-triggered desires for products that arise without the consumer's control and motivate immediate fulfillment. They play a mediating motivational role in consumer action, particularly low-deliberation or impulsive action. The consumption urge phenomenon has been largely overlooked in germane topics such as consumer decision-making, product evaluation, and most importantly consumer motivation. Perhaps part of the reason for this omission involves the extant focus of consumer research which as Bagozzi (forthcoming) points out concerns identifying reasons for consumer action and has resulted in a plethora of research on cognitive processing topics such as perception, categorization, schemas, and memory, and consumer evaluation topics such as attitudes, judgment, intentions, and norms, yet neither tradition has investigated the theoretical mechanism linking the bases for action to motivation and decisions to act. (p. 21).

Another shortcoming of extant consumer research that has fostered the omission of consumption urges from scholarly investigation is the extant focus on effortful, deliberated consumer behavior processes. Because consumer research is mostly concerned with extended evaluative and judgment-formation processes, there has been little room for exploring those consumer behaviors that are not highly deliberated but are more automatic since these have frequently been judged and dismissed as irrational behaviors that represent irregular departures from the reasoned route of effortful processing and conscious deliberation. Recent research on the role of automatic processes in consumer behavior reveals that much of consumer behavior is influenced automatically by environmental properties. Thus, in the case of pursuing the consumption of an object that has triggered a sudden desire, the stimulus product automatically triggered the consumer's motivation to pursue it and the process occurred efficiently without the consumer's need to consider reasons for wanting the product prior to feeling the desire for it.

Thus, purchase decisions need not be initiated with need recognition since a product encounter itself can sometimes be powerful enough to trigger instantaneous desire and motivation to acquire. While recognizing a need and then identifying and evaluating alternatives is assumed to be the logical, rational route, another viable option is to take advantage of a timely opportunity when it spontaneously arises.

[Click here for the full paper - Carolina hyperlink this to the attached file \(11b3-not-all-desires.pdf\)](#) and delete this last part

## Affect Integration in a Simultaneous Presentation Context

*Pracejus John, University of Alberta*

[Click here for the full paper – Carolina](#) [hyperlink this to the attached file \(11b4-affect-integration\)](#) and then delete this last part

## **Session 12 (Disco Bar – during Cocktail hour)**

### **Working Paper Session**

When Does Persuasion Knowledge Influence Brand Evaluations?

*Kelly Main, Mei-Ling Wei, Eileen Fischer, York University*

## Abstract

Persuasion knowledge has often been shown to provoke responses that are resistant in nature. Yet we know that persuasion knowledge does not invariably result in resistant responses and require further understanding of when this occurs. As well, although much of persuasion proceeds through brand agents and communications, we have yet to fully examine the influence of persuasion knowledge when brands (versus salespeople) are agents. This research begins to explore the boundary conditions of activated persuasion knowledge in a brand setting. Findings are presented from an experiment that examines the influence of activated persuasion knowledge, where the persuasion agent is a brand, and considers the moderating effects of brand familiarity on evaluations. Results show an interaction between activated persuasion knowledge and brand familiarity and support the view that when consumers are familiar with a brand agent, the influence of activated persuasion knowledge on evaluations is attenuated.



## WHEN DOES PERSUASION KNOWLEDGE INFLUENCE BRAND EVALUATIONS?

A dominant assumption underlying both study and practice is that the effectiveness of marketing activities is undermined when consumers' awareness of the persuasive nature of the activity is heightened. The idea that consumers develop and harbor their own personal theories about how and when marketing is at work, and that they use this to respond to marketing activities, forms the basis of the study of persuasion knowledge (Friestad & Wright, 1994). This paper examines the influence of consumers' use of persuasion knowledge in response to brand agents and communications. The objective of this research is to begin exploring the boundary conditions of activated persuasion knowledge in a brand setting. This is important because: 1) while we know that the effect of persuasion knowledge is not invariably resistance (Friestad & Wright, 1994; Kirmani & Campbell, 2004), we lack systematic understanding of when this occurs; and 2) although much of persuasion occurs through brand agents and communications, we have yet to fully examine brands as persuasion agents. This paper presents theory and findings from an experiment that suggest while activated persuasion knowledge can have an adverse influence on brand evaluations, this influence is attenuated by the familiarity of the brand agent.

## HYPOTHESES

Persuasion knowledge consists of the personal theories that consumers harbor about marketing (Wright, 1986) and their everyday thinking about market-related thinking (Wright, 2002). It includes what consumers believe are psychological events and activities that marketers want to influence, and attempts by marketing agents to influence these events (Friestad & Wright, 1994). There is substantial evidence that consumer response towards an agent in the marketplace changes, generally becoming less favorable, with heightened awareness of persuasion motives and tactics. Researchers have demonstrated this effect of activated persuasion knowledge on consumer evaluations (Campbell & Kirmani, 2000) and behaviors (Brown & Krishna, 2004; Williams, Fitzsimmons, & Block, 2004). Yet Friestad and Wright (1994: 11) cautioned that persuasion knowledge does not necessarily dominate consumer responses but “only that it contributes to it and can be, under some conditions, a major contributor”. This suggests that there are factors that will moderate the influence of persuasion knowledge. One such factor may be the nature of the persuasion agent.

Prior research has typically featured explicit agents in relatively overt selling functions (e.g., salesclerk, retailer) and suggests that activated persuasion knowledge results in less favorable consumer responses. Campbell and Kirmani (2000) demonstrated that the more accessible a salesclerk’s persuasive motive for flattery, the less favorable consumer evaluations of the salesclerk. Brown and Krishna (2004) showed that the more information provided about a retailer’s rationale for low prices, the less likely consumers would choose high default options. Williams et al. (2004) demonstrated that the more aware consumers are made of a particular persuasion tactic, the less likely they would express interest in volunteering in an organization using that tactic. Little attention has been paid to brands as persuasion agents. Accordingly, the

influence of persuasion knowledge on evaluations is expected to be similar when brands are persuasion agents. Thus the following hypothesis:

H1: Activated persuasion knowledge about a brand's attempt to persuade will result in lower brand evaluations.

Research on brands suggests that the effects of marketing communications are quite different depending on the familiarity of the brand. Machleit and Wilson (1988) demonstrated that brand familiarity diminishes the relationship between advertising attitudes and brand attitudes. Kent and Allen (1994) showed that brand familiarity reduces the effects of competitive advertising interference. Campbell and Keller (2003) demonstrated that brand familiarity postpones the effects of advertising repetition wear out. Given its scope, Rindfleisch and Inman (1998) identified three mechanisms by which brand familiarity influences attitudes: mere exposure, information availability and social desirability. Accordingly, brand familiarity is expected to attenuate the influence of persuasion knowledge. Thus the following hypothesis:

H2: There will be an interaction between activated persuasion knowledge and brand familiarity such that:

H2a: When participants are unfamiliar with a brand, brand evaluations for those who have activated persuasion knowledge will be significantly lower than those who do not have activated persuasion knowledge.

H2b: When participants are familiar with a brand, brand evaluations for those who have activated persuasion knowledge will not be significantly lower than those who do not have activated persuasion knowledge.

## METHOD

The experiment was a 2 (persuasion knowledge: activated and not activated) X 2 (brand familiarity: familiar and unfamiliar) between subjects design.

### Stimulus Development

To allow for variation in activated persuasion knowledge and to enhance the relevance of the task to student participants, a campus radio show was created. The radio show was titled “The Hungry Student Show” and its theme was “all about life as a student on a shoestring...[with] tips on living, playing and eating on a tight budget”. The show’s host talked about saving money by using a particular brand of packaged food product. The brands, music, radio station and host actually existed and were accessible to participants. For instance, the radio station was based on the campus that participants attended and the host was a long-time associate at the radio station. As well, the script for the show drew from student living and target brand websites, and made reference to various aspects of the campus that participants attended.

Two versions of the show were created: one version mentioned a familiar brand and another mentioned an unfamiliar brand. Both brands produced the same packaged food product and were accessible to participants. Also, the packaging for both brands was comparable (e.g., blue and orange colors, product depiction and description). The two versions of the show were the exact same except for the name of the brand mentioned in three different sentences (e.g., “This week’s prize is a two-year supply of FAMILIAR/UNFAMILIAR BRAND!”). Studio recording equipment was used to minimize technical differences between the two versions.

One pretest was conducted to ensure that the two brands differed in familiarity and that the same statements about both brands were equally plausible. Student participants (n = 32), from a different pool, were presented with a list of various brands from different product

categories and were asked to rate their familiarity with each brand (1 = “not at all familiar”, 7 = “very familiar”). As well, they were presented with a list of the same statements about the brands (e.g., “more nutritious”, “better value”) and were asked to rate their agreement with each (1 = “strongly disagree”, 7 = “strongly agree”). The results show that participants were significantly more familiar with the target familiar brand than the target unfamiliar brand ( $M = 6.00$  vs.  $1.42$ ), and that ratings of agreement did not significantly differ between the two brands (e.g., “more nutritious” ( $M = 4.06$  vs.  $4.00$ ), “better value” ( $M = 3.42$  vs.  $3.76$ )).

Another pretest was conducted to ensure that general perceptions of both versions of the radio show did not significantly differ. Student participants ( $n = 15$ ) listened to one of two versions of the show and were asked to rate their responses towards different aspects of the radio show (e.g., 1 = “hard to follow”, 7 = “not hard to follow”; 1 = “not interesting”, 7 = “interesting”; 1 = “sounded like a real radio show”, 7 = “did not sound like a real radio show; 1 = “sounded suspicious”, 7 = “did not sound suspicious”). The results show that the two versions of the show did not significantly differ on any of the measured aspects (e.g., follow ( $M = 4.86$  vs.  $5.75$ ), interest ( $M = 4.29$  vs.  $5.25$ ), real ( $M = 3.57$  vs.  $4.62$ ), suspicious ( $M = 3.57$  vs.  $3.25$ )).

Activated persuasion knowledge was manipulated via the experimenter’s instructions. All participants were informed about the same details of the task and show, but only those in the activated persuasion knowledge condition were told that a brand had paid for the show.

#### Procedure

A total of 83 undergraduate students at a large eastern university participated in the study. They were randomly assigned to the four conditions. Participants signed up for 45 minutes sessions and were paid their choice of either \$12 cash or a movie pass. They were each run individually by the same experimenter in similar rooms with the same equipment, and were told

that the researchers were interested in people's impressions of different radio shows.

Participants first listened to the show on a stereo and then when the show was over, the stereo was taken away and a booklet containing the measures was provided.

## Results

*Manipulation checks.* The effectiveness of the activated persuasion knowledge manipulation was examined in two ways. First, I coded any thoughts of a suspicious nature (e.g., “sounded a bit like an advertisement”, “selling”) and conducted a one-way ANOVA on the reported thoughts. The results show that the main effect of activated persuasion knowledge was significant ( $F(1, 80) = 8.20, p = 0.005$ ). Participants in the activated persuasion knowledge condition were more likely to list suspicious thoughts than those who were not in the activated persuasion knowledge condition ( $M = 0.60$  vs.  $0.29$ ). Second, I conducted a one-way ANOVA on participants' agreement with the following statement: “The brand was mentioned because it paid to be mentioned”. The results show that the main effect of persuasion knowledge activation was significant ( $F(1, 80) = 5.98; p = 0.017$ ). Participants in the activated persuasion knowledge condition were more likely to agree that the brand paid to be mentioned than those who were not in the activated persuasion knowledge condition ( $M = 7.63$  vs.  $6.32$ ).

Next the effectiveness of the brand familiarity manipulation was examined in two ways. First, I conducted a one-way ANOVA was conducted on participants' rating of familiarity with the brand mentioned in the radio show. The results show that the brand familiarity manipulation was significant ( $F(1, 80) = 102.03; p < 0.001$ ). Participants in the familiar brand condition were more likely to be familiar with the brand than those who were in the unfamiliar brand condition ( $M = 8.20$  vs.  $2.83$ ). Second, I conducted a one-way ANOVA on participants' rating of experience with the brand mentioned in the radio show. The results show that the brand

familiarity manipulation was significant ( $F(1, 80) = 43.79; p < 0.001$ ). Participants in the familiar brand condition were more likely to be experienced with the brand than those who were in the unfamiliar brand condition ( $M = 6.75$  vs.  $2.59$ ).

As well, I conducted a 2 (persuasion knowledge) X 2 (brand familiarity) ANOVA on the level of attention paid and perceived speed of the radio show. The results show that neither the main effects nor the interaction was significant ( $F_s < 1$ ) and suggest that participants did not perceive the four conditions to differ in terms of attention and ease of processing. This helps to rule out the possibility that participants were differentially involved.

*Hypotheses testing.* Participants' responses towards the brand (1 = "dislikeable", 9 = "likeable"; 1 = "bad", 9 = "good"; 1 = "unfavorable", 9 = "favorable") were averaged to form a brand evaluation index ( $\alpha = 0.93$ ). Consistent with H1, the results of a 2X2 ANOVA on participants' brand evaluation show that the main effect of activated persuasion knowledge was significant ( $F(1, 80) = 32.38; p < 0.001$ ). Participants with activated persuasion knowledge were significantly more likely to evaluate the brand less favorably than those without activated persuasion knowledge ( $M = 4.03$  vs.  $6.22$ ).

Consistent with H2, there was a significant interaction between activated persuasion knowledge and brand familiarity ( $F(1, 80) = 6.429; p = 0.013$ ). In line with H2a, when the brand is unfamiliar, participants' brand evaluation with activated persuasion knowledge is significantly less favorable than those without activated persuasion knowledge ( $F(1, 40) = 47.49; p < 0.001; M = 3.43$  vs.  $6.60$ ). However, in line with H2b, when the brand is familiar, participants' brand evaluation with activated persuasion knowledge is only slightly less favorable ( $F(1, 39) = 3.83; p = 0.058; M = 4.63$  vs.  $5.85$ ). As illustrated in Figure 1, activated persuasion knowledge is less influential when the brand is familiar.

## DISCUSSION

The results of this experiment are consistent with prior research indicating that consumer response can become less favorable with activated persuasion knowledge. Participants who were told that the show was paid for by a brand, responded less favorably towards the brand than those who were not so informed. Unlike past studies, this experiment examined brand agents and communications and showed that the influence of activated persuasion knowledge can be moderated by brand familiarity. The effects of telling participants that the show was paid for by a brand were greater when the brand was unfamiliar than when it was familiar.

Of interest, brand familiarity by itself did not seem to influence participants' evaluations. Brand evaluations by participants in the familiar brand condition were no more favorable than those in the unfamiliar brand condition. This is interesting because it suggests that preexisting brand attitudes alone might not be driving the differential effects of activated persuasion knowledge, between familiar and unfamiliar brands.

In summary, this paper contributes to the understanding of persuasion knowledge by studying brands as persuasion agents and showing that its influence is moderated by brand familiarity: when consumers are familiar with a brand agent, their familiarity attenuates activated persuasion knowledge and in turn their evaluations differ from those who are unfamiliar with a brand. This study is consistent with the view that persuasion knowledge does not invariably result in resistant responses (Friestad & Wright, 1994; Kirmani & Campbell, 2004).



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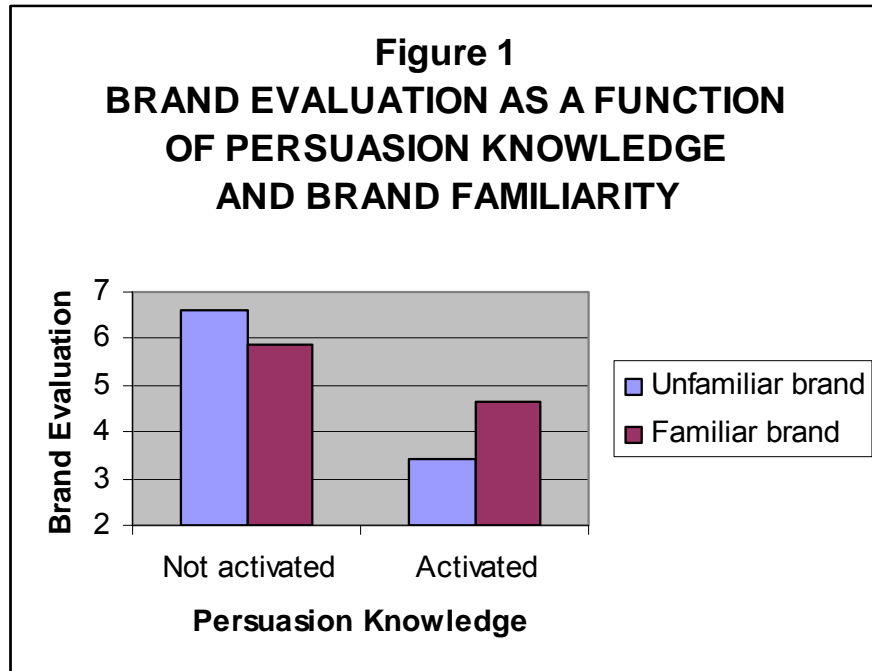
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Figure 1



Utility Blindness: Why Do We Fall For The Deal  
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## Abstract

Although often viewed as a suboptimal consequence of price competition, sales promotion is not readily to be replaced by other pricing policies like everyday-low-price. The fundamental question in promotion research—why consumers respond to the deals, has remained a controversial one. The present research addresses consumers' response to promotion from the information-processing perspective.

Economic and game-theory research generally stress that customers are attracted by the monetary savings from the deal under the assumption of utility maximization. Consumer research argues that people fall for the deals for their own demographic properties like deal proneness (e.g., Lichtenstein, Netemeyer and Burton 1990), for customer value and positive experience (e.g., Holbrook 1994), or for an array of both utilitarian and hedonic benefits (Chandon, Wansink and Laurent 2000). Thaler (1985) proposes the widely-accepted theory that consumers evaluate transaction by total utility, the sum of acquisition utility (utility from the purchased good minus price) and transaction utility (internal reference price minus price).

However, in real life consumers often exert behaviors seemingly disobeying the principle of total utility, such as buying promoted products they would never use. In this paper we propose the notion of utility blindness, which refers to the phenomena that under limited information processing, consumers would base their purchase decision solely on transaction utility (gains from the deal) rather than total utility. When the deal is attractive enough, people would buy the products even though the total utility is negative; on the other hand, an unattractive deal might decrease people's purchase likelihood when the total utility is unaffected by the promotion. A series of studies provided evidence for the existence of utility blindness, with information

processing focus as the underlying process. Moderating factors (e.g., cognitive load) of utility blindness phenomena were also identified.

Utility blindness is showed to exist even in knowingly “rational” groups like PhD students of economic/business major. Experiments demonstrate that when primed with different information-processing focus in an unrelated previous task, subjects exhibit significantly different willingness-to-buy at the presence of a deal. Effect of utility blindness is moderated by various factors including cognitive load, time orientation, and ease of utility realization, etc. Such blinding effect of a deal is in spite of individual differences in deal proneness, mood, involvement, prevention/promotion focus, risk attitude, and need-for-cognition. Utility blindness is further extended into bad-deal-good-product scenarios, other economic contexts (time, money and effort) and social relationship problems.

A Snapshot-Bin Model of Time Perception  
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## Abstract

Physicists (cf. Hawkins 1996), philosophers (cf. McTaggart 1993, Reichenbach 1924), psychologists (cf. Allan 1979, Treisman 1963), popular writers (cf. Jonsson 1999) and marketing researchers (cf. Hui and Tse 1996, Taylor 1994) have all written extensively about the differences between objective time and subjective time. While objective time is defined with great precision and with relation to physical processes, subjective time has to do with the perception of time during a particular experience.

Researchers have shown that differences between objective and subjective time are driven by various factors like distraction (Katz, Larson and Larson 1991) and involvement (Allan 1979). In the domain of marketing where service providers want to minimize the perception of waiting time, manipulating these factors has been shown to influence subjective time. Katz, Larson and Larson (1991) showed that distractions during the waiting period (e.g. a newsboard or television) made the wait more palatable. Kellaris and Kent (1992) found that playing music increased satisfaction while waiting and concluded that “time flies when you are having fun”.

Subjective time could be measured in a number of different ways. First, individuals could be put through an experience and asked either their perception on how quickly time had passed (i.e., the speed of time) or to estimate the duration of the experience. The simplest and most intuitive relationship between these two variables is that the faster the speed of time, the shorter will be the subjective duration (i.e.,  $\text{Perceived Duration} = \text{Constant} / \text{Perceived Speed}$ ). Second, time perception can be measured either immediately at the conclusion of (or during) the experience, or with a temporal delay. Most prior research in the area of time perception measures estimates of duration immediately at the end of the episode (cites), and offers no predictions on why responses collected immediately at the end of an episode might be different from those collected with a temporal delay.



Our intuition suggests, however, that experiences in which time seems to move quickly might also be reported to be longer in duration when recalled after a temporal delay. In one field demonstration (described later), visitors to a popular amusement park reported that time had passed more quickly at the end of a themed story-based ride relative to a simpler carousel ride. However, these same visitors also reported – after a time delay – that the duration of the themed ride was greater than the duration of the carousel ride. If time passed quickly in the themed ride, why did visitors believe that it had a greater duration?

We resolve this seeming discrepancy by proposing that duration judgments made with a delay arise from a process that is fundamentally different from judgments made online or immediately at the conclusion of the episode. In particular, we draw on the bin-model of memory (Wyer and Srull 19xx) to propose a memory based process that we call the “snapshot model.” In particular, taking the cue from the Czech author Milan Kundera who wrote that “memory does not make films, it makes photographs,” (Kundera 1999), we propose that individuals take mental snapshots of the environment every time they encode a cognitive or sensory change. These snapshots are categorized and stacked in bins like sheets of paper, such that snapshots that are put in first are at the bottom of the stack relative to more recent snapshots. While recalling events, individuals retrieve the snapshots from the appropriate bin and view them at a roughly constant speed, such that the greater the number of snapshots, the longer the time taken to review them. In the case of rich stimuli where the environment changes frequently (like the themed ride), time might pass by quickly during the episode because of the distractions; however there are significantly more snapshots, resulting in a greater retrieval time and hence a longer estimated duration. The snapshot model also has other implications relating to the sequence in which people believe past events occurred.

Bring the Future in Front of the Mind's Eye: Exploring the Moderating Role of  
Ad Evoked Imagery Processing

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BRING THE FUTURE IN FRONT OF THE MIND'S EYE: EXPLORING THE  
MODERATING ROLE OF AD EVOKED IMAGERY PROCESSING

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## Abstract

In this working paper, we attempt to test whether mental imagery generated by strategically presented advertisement messages will change the influence of temporal barriers between ad viewing and consumption and enhance the effectiveness of advertising. A brief literature review, some results from a pretest and a brief discussion of future investigations are included.

# BRING THE FUTURE IN FRONT OF THE MIND'S EYE: EXPLORING THE MODERATING ROLE OF AD EVOKED IMAGERY PROCESSING

## INTRODUCTION

In the numerous advertising messages people encounter everyday, advertisers often present consumers with accentuated descriptions of the promised positive experience or consequences of using their product in the future. However, the temporal distance between the current moment of viewing the ad and the future purchase or consumption experiences might cast a barrier for consumers from having experience with the product and developing positive attitudes and behavior intentions.

Interestingly, in order to offset the temporal barrier between advertising and actual consumption, many messages implicitly and explicitly attempt to engage consumers by eliciting the imagined experience of future consumption scenarios in the hope of changing consumers' attitudes toward their products or brands and generating more sales. For example, a Mercury automobile ad invites viewers to "imagine yourself in a Mercury." A Whirlpool ad campaign asks viewers to "imagine treating clothes so well they look new longer." By imagining the consumption experience, consumers might be able to feel more directly the positive consequence of using their product. These advertising messages are supposed to evoke imagery in consumers' minds and engage them in a process of constructing the future consumption experience in concrete, vivid, multi-sensory and tangible means in order to change their attitudes and ultimately to enhance their purchase intentions.

In this working paper, we attempt to test whether mental imagery generated by strategically presented advertisement messages will change the influence of such temporal

barriers between ad viewing and consumption and enhance the effectiveness of advertising. In the following sections, we include a brief literature review, some pretest results and a brief discussion about the future investigations.

## TEMPORAL DISTANCE AND DISCOUNTING

Temporal distance is defined as the distance between the reference point and the point of the occurrence of the event under consideration. Researchers have examined the effect of temporal distance on outcome measures such as attitudes, perceptions, confidence, and choices (Karniol and Ross, 1996). From a social cognitive point of view, people's responses to social events and objects are based on how they mentally construe them (e.g., Griffin & Ross, 1991; Pennington & Hastie, 1988, 1993). This line of research suggests the possibility that temporal distance can change people's responses to future events by changing the way they construe the events.

Temporal construal theory posits that people's representation of events and objects in the future involves different levels of abstraction. Such levels of abstraction are assumed to be a function of the temporal distance of the perceived event or object (Liberman & Trope, 1998; Trope & Liberman, 2000). Temporal distance is expected to change the way people respond to future events by influencing the way events are represented in their mind. People have very distinct psychological associations with temporal distance; events that have a large temporal distance tend to be represented with higher-level abstraction. And it was found that abstract of representations tend to be simpler, more prototypical, and more schematic than concrete representations (Fish & Taylor, 1991, p. 98; Smith, 1998).

A large amount of empirical research as well as anecdotal evidence suggests that temporal distance between the reference point and the future event systematically changes

people's responses to such events. For example, research in behavioral economics has found that future outcomes typically undergo some kind of discounting, i.e., holding the outcome constant, people view temporally proximate objects as more important than temporally distant ones. Research also shows that such discounting can be modeled by a discounting curve which appears steeper than would be justified by purely economic considerations. Temporal discounting describes the observed decline in perceived value of benefits as time extends into the future. As an example, if a person were offered \$15 next week, he/she might need to be offered the possibility of \$20 in a month to make the latter offer more attractive.

In addition, social psychological research on delay of gratification and self-control also demonstrates that both humans and animals are better able to delay gratification with respect to distant future outcomes than near future outcomes (Ainslie, 1975; Mischel, 1974; Rachlin, 1995; Trope and Fishback, 2000). It seems that the future tends to be discounted in people's judgment and decision making processes. Therefore, we hypothesize the following:

*H1: Temporal distance will have a negative influence on consumer's preferences and behavior intentions.*

## COMMUNICATION-EVOKED IMAGERY

Imagery is defined as "a process (not a structure) by which sensory information is represented in working memory" (MacInnis & Price, 1987). It is an information processing mode which responds to one or more of the senses. It may involve sight, taste, sound, smell, and tactile sensations, ranging from a few simple and vague images to many complex and clear images (Bone & Ellen, 1990, 1992).

Previous research has proposed the availability/valence hypothesis to explain why imagery should influence attitudes and behavioral intentions (Kisielius & Sternthal, 1986; Bone

& Ellen, 1992). This hypothesis states that the information which is most available to an individual when making a judgment has the greatest impact on that individual's judgment. Many researchers explain that information processed via images, rather than semantic codes alone, more readily comes to mind at the time of the judgment, because imagery may result in more concrete scenarios and greater information elaboration (Kisielius & Sternthal, 1986; Unnava & Burnkrant, 1991). Therefore, it is expected that persuasive messages evoking greater imagery will increase elaboration and result in more positive attitudes toward the advertisements, attitudes toward the brand, and behavioral intentions.

Several studies point out that imagery processing is more likely to elicit emotions than is discursive processing. Sheikh and Jordan (1983) argue that imagery processing is more likely to lead to retention of the emotional or affective nature of the stimulus itself. Lang (1979) concludes that purchase intentions are affected only if there is an emotional reaction evoked by the imagined scenario. On the basis of this reasoning, it is expected that more imagery processing elicits more emotions, having more effects on the attitudes toward the advertisements, attitudes toward the brands, and behavioral intention. Hereby, we hypothesize the following:

*H2: Advertising message-evoked imagery processing will have a positive influence on people's preferences and behavior intentions.*

Crossing the theoretical and empirical examinations of imagery and temporal distance, it seems both imagery and temporal distance can influence people's preference through altering the way they mentally represent and process the information about the target object or event. Imagery processing, evoked by communicating with vivid, multi-sensory experiential information, or instructions to engage in mental construction of such experientially rich scenarios, can change people's preference by eliciting more emotional responses and increase



purchase intention. Temporal distance, a mutable attribute associated with certain events or objects can also alter people's preferences by changing the way people represent and process future events. For example, Markus and her colleagues suggested that individuals can bring the future to the present by creating images of possible selves, representations of how they might act, look, or feel in the future (Cantor et al., 1986; Markus & Nurius, 1986; Markus & Ruvolo, 1989). Imagined end states can motivate current processing to the extent that people will be able to link their present condition to these potential outcomes through a set of self-representations that lead to the end states (Markus et al., 1990). Based on similar reasoning, we hypothesize an interaction effect between imagery and temporal distance:

*H3: Mental imagery moderates people's preferences and behavior intentions associated with different temporal distances.*

#### PRETEST METHOD

The pretest employed a two (imagery) x three (temporal distance) factorial design to test the hypotheses. The stimuli consisted of six actual websites (one for each experimental condition), featuring a fictitious brand of gourmet chocolate, Maravilla™ (see appendix A). The website contained either low or high imagery descriptive language about the chocolate products (imagery condition) and provided shipping information promising either three day, seven day, or fourteen day free delivery for the chocolates (temporal distance condition). The high imagery condition language emphasized concrete words, action verbs, and instructions to imagine. The following is an example of high imagery language, "The deep dark chocolate envelops your taste buds as it releases a delightful hazelnut surprise." Low imagery language included, "We prepared our deep hazelnut wrapped in premium dark chocolate made from rich high quality cacao beans."

Ninety-nine students were recruited at a large Midwestern university and randomly assigned to six conditions. After viewing the websites, respondents listed their thoughts, indicated their attitudes, purchase intention, and price estimates. Additionally, potential moderator or control variables and demographic measures were obtained. Attitude toward the brand ( $A_b$ ) was measured on a five-item 7-point semantic differential scale (like/dislike, appealing/unappealing, good/bad, tempting/not tempting, and interesting/not interesting) and an overall favorability measure using a 7-point Likert-type scale ( $\alpha=.92$ ). Attitude toward the website ( $A_{st}$ ) was measured on a four-item 7-point semantic differential scale (good/bad, like/dislike, positive/negative, and favorable/unfavorable) and an overall favorability measure using a 7-point Likert-type measure ( $\alpha=.94$ ). Purchase intention (PI) was measured by three items (like to buy, interested in trying, like to find more information) assessed on 7-point Likert-type scales (1-strongly agree to 7-strongly disagree) ( $\alpha=.72$ ). These values were summed and averaged.

Estimated product price was asked to assess respondents' perceived value of the chocolate product across conditions. Estimated extra price for overnight shipping was asked to test whether the two imagery conditions and three temporal distance conditions would result in a difference between how much more respondents were willing to pay to have the chocolates products shipped overnight. These were measured by open ended questions. Positive affect, negative affect, buying impulsivity, ability for visually imagery, discursive processing, chocolate measures, and demographic information were measured. As a manipulation check of the image conditions, a measure of imagery processing were used ( $\alpha=.82$ ), comprising three dimensions of visual imagery processing, vividness, quantity, and ease (Bone & Ellen, 1992).

## PRETEST RESULTS

After two outliers were removed based on descriptive statistics, an independent sample t test was conducted for manipulation check. The results showed a significant difference between these two imagery conditions on imagery processing scale ( $M_{\text{low}} = 4.7178$ ,  $M_{\text{high}} = 5.1402$ ,  $t = -2.083$ ,  $p = .04$ ). We tested only 3 and 14 days conditions to better differentiate the effects of temporal distance. We ran analysis of variance tests (ANOVA), using each of our dependent measures respectively.

Table 1 shows the results for H1, which predicted that temporal distance will have a negative influence on consumer's preferences and behavior intentions. None of the results showed significant p values. Across the dependent measures, the means of the 3 day condition were higher than those of the 14 day condition for the attitude measures, while purchase intention and estimate price measures were in the opposite direction.

H2 proposed that advertising message-evoked imagery processing will have a positive influence on people's preferences and behavior intentions. As shown in Table 2, across the dependent measures, the means of the high imagery condition were higher than those of the low imagery condition except for estimated price. However, none of the results showed significant p values.

Table 3 shows the results for H3, which predicted the interaction effect of mental imagery and temporal distance on people's preferences and behavior intentions. None of the interaction effects were found. However, the result of price for overnight shipping approached the significance level ( $p = .077$ ).

## DISCUSSION

As the first stage in this working project, the pretest was intended to test the effects of imagery and temporal distance elicited by advertising message on consumers' attitudes and behavior intentions. Even though the pretest did not show any significant results, it suggests several insights for future testing. First, the interaction effect of imagery and time frame on the estimated price for overnight shipping approached the significance level ( $p=.077$ ). This finding is consistent with our main research idea that high imagery processing can decrease the effects of temporal distance. In the case of the 14 day condition, people in the high imagery condition were willing to pay more money for overnight shipping than people in the low imagery condition, whereas in the 3 day condition people in the high imagery condition would not pay more than those in the low imagery condition.

Second, the pretest suggests that a more differentiated manipulation of independent variables may lead to significant results in future research. Most results of the effects on attitudes and behavior intentions were consistent with the directions predicted in hypotheses. The manipulation of temporal distance did not seem to be strong enough to create significant difference. The subjects might not react to 14 days as a far future time distance. As such, it may not be clearly distinguished from the three days near future time condition. More empirical data need to be collected to come to more differential and realistic time distances for future testing.

The manipulation of imagery in the pretest may not be differentiated enough. Even though statistical test showed significant result, the mean score of imagery processing in the low imagery condition was 4.7 out of 7. This suggests that quite a few subjects in the low imagery conditions actually employed moderate to high imagery processing. It may be because the chocolate itself is an imagery evoking product and because the vivid chocolate pictures we used

in both conditions could probably enhance overall level of imagery processing. In addition, a closer look is needed at the underlying relationship between each dimension of the imagery processing measures (vividness, quantity/ease) and dependent measures, as previous research has proposed (Bone & Ellen, 1990, 1992).

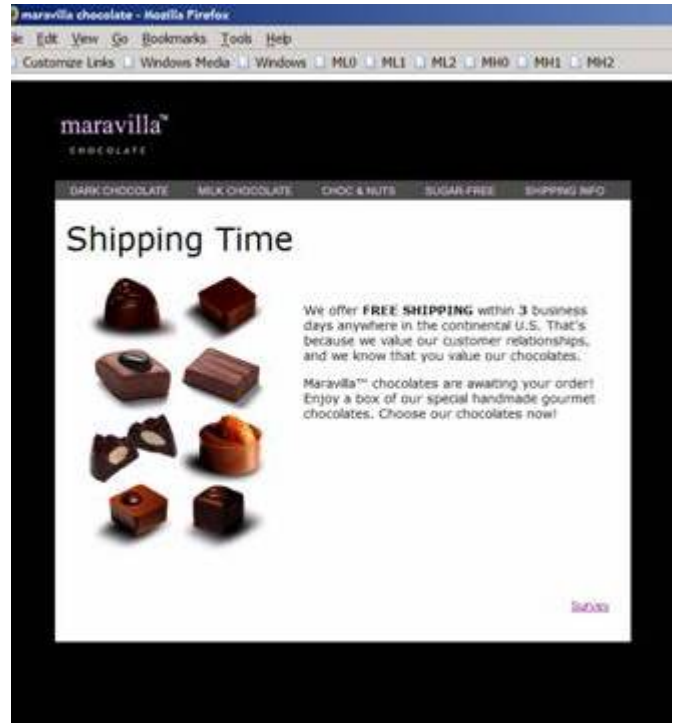
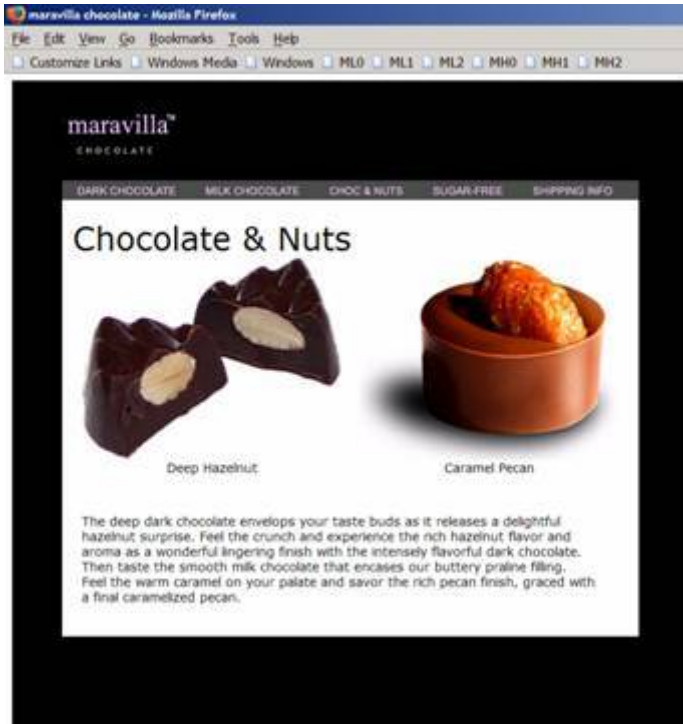
Our working paper aimed at exploring the effect of temporal distance and the moderating role of imagery processing on consumers' attitudes and behavioral intention and. Theoretically, this study contributes to a deeper understanding of the effects of people's mental representations and processing modes on their judgment and behavior. This study will also help advertisers to better understand the effects of imagery eliciting strategies and consumers' mental representations of temporal distance associated with the products or services. The pretest results suggest that more differentiated manipulation and more sophisticated research design would be needed to in the further stages of the project to answer the proposed questions.

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Appendix : Maravilla™ Homepage  
(a product description page and the shipping info page)





### Author Note

Jun Myers, Rita Langteau and Soyoen Cho are doctoral students in the School of Journalism and Mass Communication at the University of Minnesota. This project benefits greatly from the authors' faculty adviser Ronald Faber's suggestions and guidance.

Table 1.

*Means and Standard Deviations for Time Distance on Attitudes and Behavior Intentions*

	Shipping within 3 days (n=32)	Shipping within 14 days (n=33)
Attitude toward Website	4.81 (1.28)	4.42 (1.64)
Attitude toward Brand	5.59 (1.17)	5.49 (1.12)
Purchase Intention	5.19 (1.20)	5.23 (1.22)
Estimated Price	14.05 (6.94)	17.06 (8.07)
Extra Price for overnight shipping	5.35 (6.02)	7.41 (6.52)

Table 2.

*Means and Standard Deviations for Imagery on Attitudes and Behavior Intention*

	Low Imagery (n=32)	High Imagery (n=33)
Attitude toward Website	4.50 (1.46)	4.72 (1.51)
Attitude toward Brand	5.39 (1.16)	5.69 (1.11)
Purchase Intention	5.19 (1.09)	5.23 (1.32)
Estimated Price	15.72 (8.91)	15.44 (6.29)
Extra Price for overnight shipping	6.12 (6.26)	6.65 (6.45)

Table 3.

*Means and Standard Deviations for Time and Imagery on Attitudes and Behavior Intention*

	Shipping within 3days		Shipping within 14days	
	Low Imagery (n=15)	High Imagery (n=17)	Low Imagery (n=17)	High Imagery (n=16)
Attitude toward Website	4.60 (1.45)	5.00 (1.12)	4.41 (1.50)	4.44 (1.82)
Attitude toward Brand	5.46 (1.15)	5.72 (1.20)	5.33 (1.20)	5.67 (1.04)
Purchase Intention	5.16 (1.00)	5.22 (1.20)	5.22 (1.39)	5.25 (1.28)
Estimated Price	14.06 (8.08)	14.05 (6.03)	17.19 (9.59)	16.93 (6.41)
Extra Price for overnight shipping	6.51 (8.43)*	4.32 (2.38)*	5.58 (3.69)*	9.13 (8.36)*

\*p<0.08

College Student Smoking: The Importance of Situational Factors  
*Karen Smith, Gail M. Zank, Mary Ann Stutts, Texas State University*

## Abstract

This working paper provides a framework to categorize situational factors affecting the smoking behavior of traditional college students, aged 18-24. Depth interviews were conducted in order to develop a deeper understanding of situational effects on the smoking behavior of college students in order to provide guidance for interventions that will be successful with this age group. The smoking behavior of college students is heavily affected by situational factors: social surroundings, such as using smoking as an ice-breaker or feeling a connection or bond with other smokers; physical surroundings, such as smoky bars; temporal perspectives, such as smoking during work breaks; task definition, such as reasons for quitting smoking; and antecedent states, such as stress.

## COLLEGE STUDENT SMOKING: THE IMPORTANCE OF SITUATIONAL FACTORS

### INTRODUCTION

Based on a review of the literature, Patterson et al. (2004) concluded that about one-third of college students have smoked in the past year and that the smoking rate (number and frequency) has increased in recent years. Although most adult smokers began smoking in their teens, several studies have shown that a large proportion of current college student smokers began while in college (e.g., Biasco and Hartnett 2002; DeBernardo et al. 1999). Changes in life-stage can cause upheavals in the types of situations to which individuals are exposed. The transition to college leads to a much greater degree of independence, along with exposure to new places, people, and activities. For example, a high school student may not have smoked because his/her parents did not smoke, his/her friends did not smoke, and he/she had limited opportunity to smoke. When that high school student reaches college, they have no one telling them they cannot smoke, may meet people who are smokers, and may go to social events where smoking is taking place.

Ehlinger (2000) has emphasized that college students should be specifically targeted for anti-smoking interventions because they are at the age where the lifestyle and behavior choices they make often become permanent. He also calls for research on infrequent, "social smokers."

Despite the growing body of literature specifically addressing smoking among college students, little research has been directed toward situational smoking. The authors know of no empirical studies of college student smoking focused specifically on situational factors, including social smokers. Social smokers often do not consider themselves smokers, so there is little research on this group. However, of the college students who have ever tried smoking, a large proportion continues to become regular smokers (Rigotti, Lee, & Wechsler 2000; Everett 1999).

In this working paper, a situational framework is applied to the context of college student smoking. The paper reports the results of depth interviews designed to shed additional light on the types of situations that impact college students' smoking behavior and the phenomenon of social smokers. Results from this research will provide a deeper understanding of the smoking behavior of college students in the hope that the findings will lead to effective prevention and cessation efforts for this important segment.

## **BACKGROUND LITERATURE**

### **Situational Influences in Consumer Behavior**

Many studies have tried to determine the factors affecting smoking behavior. Most of these studies have looked at psychological variables (e.g., Callison, Karrh, & Zillmann 2002) or social variables (e.g., Smith & Stutts 1999). These variables are generally stable over time. Situations, on the other hand, change constantly but can still strongly affect behavior (Belk 1975).

The effects of situational factors on consumption behavior are well known. One framework for examining situations that impact behavior (Belk 1975) is depicted in Table 1. This framework has been applied in various contexts, such as shopping or watching television, and can be applied to smoking behavior as well. A situation is defined as "all those factors particular to a time and place that do not follow from the knowledge of personal and stimulus (choice alternative) attributes and that have an effect on current behavior" (Belk 1975, p. 158). Situations can be categorized as physical surroundings (physical), which are elements of the physical environment, such as lighting, sounds, and aromas; social surroundings (social), in which other individuals are present during the consumption process; temporal perspectives

(temporal), which deal with the effect of time on behavior, such as time pressure or time of day; task definition (task), that provides the reason the behavior is occurring; and antecedent states (antecedent), that are temporary conditions of the individual, such as mood or shortness of cash (Belk 1975). For example, a college student, who needs a calculator for a test in two hours (temporal), may not thoroughly examine all the brands and relevant attributes before making a purchase. Alternatively, a college student, who normally does not smoke, may smoke a cigarette that is offered by someone she just met at a bar (social).

Some previous studies of college student smoking behavior have looked at situations, such as drinking and smoking, but have neglected other important situations. The studies that did look at “situational effects” did not refer to them as such. In the following section, we examine and classify selected studies.

### **Situational Influences and Cigarette Consumption**

The social surroundings factor (social) has received the most attention. The Arizona survey (2002) found a strong relationship between smoking and quitting behaviors and students’ social network and housing (e.g., residence hall), and concluded that non-smoking residence halls would prevent some students from starting to smoke. Exposure to smokers in an individual’s social network can often influence them to smoke (Choi et al. 2003). Emmons et al. (1998) found that leisure activities and parties contributed to smoking choice. A survey conducted by the American Legacy Foundation found that 32% of smokers only smoked when with friends or in a social setting such as a bar or club. The interviewees reported reasons for social smoking such as “It goes well with drinking. I like the look and feel of it” and “I was already sucking in smoke — my friends and roommates smoke” (American Legacy Foundation, 2002). A study by Onal, Tumerdem, & Ozel (2002) supports the finding that smoking and

drinking are closely related behaviors; students who drank alcohol were more than twice as likely to smoke. Hines (1995) also supports that smoking is more likely to occur when there is alcohol involved or if one is with smoking friends.

Some studies have looked at antecedent states (antecedent) as predictors of smoking behavior. Students in high school experience stress, but many college students may have a higher level of stress because they no longer have their family support network close by. Course-related stress occurs primarily around exams and deadlines, but personal stress, generated by friction between friends or significant-others, can occur at any time. DeBernardo et al. (1999) found that both depression and stress contribute to college student smoking, and Choi et al. (2003) found that depressive symptoms were predictive of smoking behavior. Unhappiness and dissatisfaction with one's education can also negatively impact smoking behavior (Emmons et al. 1998).

Very few studies have examined the temporal perspectives factor (temporal). One such study by Hines (1995) examined whether smoking occurred after meals. For over half of heavy occasional smokers, smoking was likely to occur after eating. Smoking at a certain time of day would be classified as temporal.

Hines (1995) also looked at the effects of studying and watching TV on smoking behavior, which could be considered under the task definition factor. In fact, drinking alcohol could be considered a task definition factor contributing to smoking if the person only smokes when s/he drinks. Most college student smokers plan to quit (e.g., DeBernardo et al. 1999), and the reasons for quitting, such as health concerns, comprise task definition for the cessation behavior.



## METHODOLOGY

The population of interest is traditional college students (aged 18-24). In order to develop questions for the depth interviews, nine focus groups were conducted at four different universities in a medium-sized metropolitan area in the southwest U.S, following procedures of Glaser and Strauss (1967). Group sizes ranged from 4 to 10 and lasted between 60 and 90 minutes. The themes that emerged were: (1) many Social smokers do not consider themselves to be smokers, (2) smokers are aware of the health risks but smoke anyway, (3) many smokers believe they can and will easily quit when they choose, (4) smoking and drinking are closely related behaviors, (5) smokers often get more breaks at work than nonsmokers, and (6) many smokers feel a connection or bond with other smokers.

Based on these findings from the focus groups, depth interview questionnaires were constructed. Trained interviewers conducted 55 depth interviews with college students between the ages of 18 and 24. Responses to the depth interviews were examined by the researchers to identify preliminary themes.

Review of the literature on smoking behavior reveals that “smoker” is defined and measured in many different ways. Generally, studies divide smokers into usage categories, but the basis for these categories can vary widely. We chose to identify smoking status by the answers to three specific questions. Participants were identified as current smokers if they answered “yes” to the question, “Do you currently smoke?” Social smokers were identified by answering “no” to the question, “Do you currently smoke?” and yes to the question, “Do you sometimes smoke?” Former smokers were identified by answering “no” to the question, “Do you currently smoke?” and yes to the question, “Have you EVER smoked (previously but not currently)? Nonsmokers answered “no” to all three questions.

## RESULTS

Sample characteristics of participants are shown in Table 2. Participants were current students at various universities in the southwest U.S. The median age was 22, 72% white and 28% non-white, with 8% freshmen, 8% sophomores, 28% juniors, and 56% seniors. There were slightly more males (58%) than females (42%) in the sample; and males and females were not evenly distributed across smoking categories.

Out of 55 completed interviews, 7 (13%) were current smokers, 14 (25%) were social smokers, 13 (24%) were former smokers, and 21 (38%) were nonsmokers. Combining current smokers and social smokers result in 38% of the sample who smoke at least once per month. Current Smokers have been smoking between two and seven years; slightly less than half smoke less than one pack, and slightly more than one half smoke one-half pack or more per day; and they all smoke cigarettes every day. Three of the seven Current Smokers did not smoke regularly until college.

### **Smoking Situations and Social Smokers**

An examination of the responses shows that situations strongly affect college smoking behavior. As expected, many of the situations mentioned were social interactions involving alcohol, which increase the number of cigarettes smoked and the frequency of smoking. Situations influencing current smokers to smoke more included task definitions, such as drinking coffee, studying, and taking long car trips; antecedent states, such as being lonely, stressed, depressed, and bored; temporal perspectives, such as waiting around; and social surroundings, such as being around other smokers. Current smokers smoke less when they are out of cigarettes (antecedent); participating in sports (task); at work or school where they cannot smoke (physical) or they are too busy to smoke (temporal); with family members and around nonsmokers (social).

Social smokers do not smoke every day; frequency ranged from once per month to twice per week. The majority smoke one cigarette or less, but the others smoke up to ½ pack on each occasion. All social smokers in the sample smoke when they are drinking alcohol (task), and especially when they are drunk (antecedent); but some smoke on additional occasions, such as when stressed (antecedent), during finals (temporal), and when bored (antecedent). Most social smokers inhale the cigarette smoke into their lungs, but three do not (task) because it would hurt their lungs, they would cough the next day, or they do not want the negative side effects.

Another interesting finding was that both smokers and social smokers tend to smoke less around nonsmokers. So the social situation, in some cases, may decrease smoking.

### **Attitudes toward Quitting**

All seven of the current smokers plan to quit within time periods ranging from simply “soon” to next month, next year, or in the next couple of years. Reasons for quitting (task) generally involve occurrence of a certain event, such as graduation, starting a family, or when “finished partying on weekends,” although one student remarked that s/he would quit “when ready.” One participant plans to quit “cold turkey,” one states that “it’s easy, just stop smoking,” one will “stop buying them,” and the rest will use cessation aids, including gum, patch, or even hypnosis. Four of the seven tried to quit before, but were either unsuccessful or started again.

The majority of social smokers also plan to stop smoking, although four stated that they do not plan to stop completely. Similar to the responses of current smokers, social smokers plan to quit upon an event, such as graduation, starting a permanent job, having children, when they stop drinking, or after taking the last final exam “ever.” Social smokers believe that quitting will be easy because they are not addicted; they will simply stop drinking and going to bars, and stop

buying cigarettes. Half said they had tried to quit before, and one respondent said s/he has quit before with “no problem.”

### **Connection with Other Smokers**

An important finding that has not been previously reported in the literature is the connection with other smokers, even when they are not previously known, which is another example of the social surroundings situational factor. Most current smokers use smoking as an ice-breaker, making it easy to meet new people. Some smoked with others outside the dorm, and one referred to “the smoke bench,” where s/he made a lot of friends in the freshman year. Some even feel a bond with other smokers because they empathize with each other, such as giving a cigarette or a lighter or making small talk with people they do not know. Three of the seven feel comfortable approaching smokers, even when they do not know them. They start talking to other smokers at the airport or around campus. Even some of the social smokers agreed they have a bond or connection with other smokers because they have something in common or are doing something together. More than half of social smokers have used smoking as an ice-breaker, such as asking for a lighter, which gave them a reason to talk, introduce themselves, and start a conversation. A few stated that they started friendships this way.

### **Breaks at Work**

Almost three-fourths of the sample work at least part-time. Participants differed widely in their feelings about smokers at work and break time. Breaks at work may fall into the task definition (e.g., smoking in order to get more breaks) or temporal perspectives (time spent on break) categories. Current smokers generally did not see a problem with excessive breaks, but nonsmokers did. Specific comments from nonsmokers included “it’s annoying because I have to wait on them before I can leave” and “it drives me crazy that they get as many breaks as they

want.” Social smokers were generally not bothered by smokers, although some thought smoking at work was unprofessional. Former smokers were split on whether they believe that smokers get more breaks or not, but they tended to sympathize with smokers because they used to be in a similar situation. Some participants mentioned that bosses purposely give smokers more breaks, especially when the boss is also a smoker, because the smokers may be less productive if they crave a cigarette.

### **SUMMARY, LIMITATIONS, AND FUTURE RESEARCH DIRECTIONS**

This research demonstrates the importance of situational conditions, such as the presence of alcohol, being with a social group, the presence of smokers, the presence of nonsmokers, and temporary conditions such as stress and depression. First, this study offers a way to categorize smoking situations by utilizing Belk’s (1975) framework. The framework provides a way to classify previous research, as well as to help identify new research opportunities.

For many students, partying every weekend becomes a habit that may not be as easily stopped as students think. This may be especially true of Social smokers, who assume they will simply stop drinking (and, therefore, stop smoking) at some point. Many young adults continue to attend “happy hour” or other social functions, where alcohol is served, well after graduation. In addition, graduation may not lead to a dramatic drop in stress or depression as many students expect. Whether the graduate is looking for a job or carrying out the demanding duties of a first job, s/he may continue to experience high levels of stress.

The data has not yet been coded by independent judges, therefore, the findings are preliminary. In addition, the findings have not been analyzed by gender or ethnicity. By the time of the conference, data analysis will be complete. Differing usage of tobacco by males and females is an area that can have important implications for public health (Ehlinger 2000). Future

research should also test the effectiveness of campus intervention programs, especially over time.

Patterson et al. (2004) found only one study assessing effectiveness of anti-smoking interventions for college students.

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Table 1

*Conceptual Model of Situations Affecting Consumer Behavior*

<b>Key Characteristics of Situations</b>	<b>Applications in General Consumer Behavior</b>	<b>Applications to Smoking Behavior</b>
Physical Surroundings	Shopping in a crowded store	Going to a smoky bar
Social Surroundings	Shopping with friends	Having a cigarette with friends
Temporal Perspectives	Shopping in a hurry	Smoking between classes
Task Definition	Buying a gift for someone special	Smoking a cigarette while studying
Antecedent States	Grocery shopping when hungry	Smoking to relieve stress during final exams

Physical surroundings: elements of the physical environment, such as lighting, sounds, and aromas. Social surroundings: other individuals present during the consumption process.

Temporal perspectives: deal with the effect of time on behavior, such as time pressure or time of day. Task definition: reason the behavior is occurring. Antecedent states: temporary conditions of the individual, such as mood or shortness of cash.

**Table 2**  
***Demographics of Participants***

<b>Self-classification</b>	<b>Number (%)</b>	<b>Median Age</b>	<b>% Female/Male</b>	<b>% White/Non-white</b>	<b>% F / S / J / Sr*</b>
Current Smoker	7 (13%)	22	57% / 43%	83% / 17%	0% / 17% / 50% / 33%
Social Smoker	14 (25%)	21	15% / 85%	85% / 15%	15% / 0% / 46% / 39%
Former Smoker	13 (24%)	22	46% / 54%	54% / 46%	8% / 15% / 31% / 46%
Nonsmoker	21 (38%)	22	53% / 47%	72% / 28%	6% / 6% / 6% / 82%
Total	55	22	42 % / 58%	72% / 28%	8% / 8% / 28% / 56%

\* F = Freshman; S = Sophomore; J = Junior; Sr = Senior.

Effectiveness of Different Self-Esteem Appeals in Advertising: Boosting,  
Confirming, or Challenging Consumers' Self-Esteem

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*Gurhan-Canli Zeynap, Koc University*

*Klein Jill, INSEAD*

## ABSTRACT

Self-esteem is a popular and important construct in social sciences and in everyday life. It is seen as one of the strongest psychogenic needs and has been referred to as .the most decisive factor in man.s motivation.. Trying to appeal to consumer feelings of self-esteem has now become a very frequent strategy used in advertising. In this paper, we identify three different ways self-esteem appeals are currently used in advertising: messages that *confirm* self-esteem of the consumer; message that *challenge* self-esteem of the consumer; or messages that *boost* self-esteem of the consumer. We then explore when and how these different appeals can be most effective through investigating their interaction with the actual self-esteem levels of consumers. We demonstrate that congruence of the ad appeal with consumer self-evaluations is critical, and this match is grounded on various theories from social psychology and marketing.

[Click here for full paper – Carolina hyperlink this to the attached file \(12-effectiveness-of-different-self-esteem.pdf\) and delete this last part](#)

Temporal Instability in Consumers' Acquisition Intentions for Really New Products

*David Alexander, John G. Lynch, Jr., Duke University*

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Firms launching new products dedicate tremendous resources to attracting potential customers and developing in those potential customers the intent to acquire the new product. Firms' efforts vary from pre-launch campaigns to build awareness and generate demand to point-of-sale promotions to encourage impulse purchases. To gauge product demand and assess the success of their marketing efforts, firms undertake market research to measure customer intentions towards their new products.

As Hoeffler (2003) points out, however, traditional market research techniques are designed for use with consumers having some knowledge related to the new product and/or its product category. These consumers are able to assess the importance of the new features of "just new" or incrementally new products (JNPs). As product newness increases, consumers are less likely to have relevant knowledge about the new features of the "really new" products (RNPs). As a result, traditional market research techniques have a difficult time measuring stable preferences for RNPs in consumers.

Given this destabilizing effect of product newness on preference measurements with traditional marketing research techniques, we wonder what effect product newness has on measurements of consumers' new product intentions and on the likelihood that consumers will follow through on those intentions. In the current research, we examine the impact of product newness on the formation of new product acquisition intentions and the rate at which consumers follow through on those intentions.

[Click here for full paper – Carolina](#) [hyperlink this to the attached file \(12-temporal-instability.pdf\)](#) and delete this last part

The Influences of Task and Information Environment Characteristics on  
Consumer Search Behavior in an Online Setting

*Ying Jiang, Girish Punj, University of Connecticut*

**THE INFLUENCES OF TASK AND INFORMATION ENVIRONMENT  
CHARACTERISTICS ON CONSUMER SEARCH BEHAVIOR IN AN ONLINE**

**SETTING**

YING JIANG

University of Connecticut

GIRISH PUNJ

University of Connecticut

Abstract

As the Internet becomes a new source of information recently, it has a major impact on consumer information search behavior. This research focuses on consumer information search in an online setting and examines how the task environment characteristics (digital vs. non-digital attributes; hedonic vs. utilitarian attributes; positive vs. negative attribute correlation; and large vs. small attribute variance) interact with information environment characteristics (sorted vs. random alternative organization; vivid vs. non-vivid information presentation) to influence consumer processing selectivity, perceived cognitive effort required for the task, affect during information search, and amount of online information search.



The Mere Mention of Money and the Self

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Miranda Selinger, *University of British Columbia*

Nicole Mead, *Florida State University*

## Abstract

There are few incentives as powerful as money. Money helps people achieve personal accomplishments, ensure a secure future, protect loved ones and provide the means to some very great ends. However, money can also evoke disagreement, difficulties, and despair. In this paper, we present three studies showing that the mere mention or priming of money a) is assumed to be related to different types of selves and b) changes people's social behavior. These studies are taken as support of a new model that relates money to alterations in how the self's independence and interdependence.

## THE MERE MENTION OF MONEY AND THE SELF

There are few incentives as powerful as money. Money helps people achieve personal accomplishments, ensure a secure future, protect loved ones and provide the means to some very great ends. However, money can also evoke disagreement, difficulties, and despair. In this paper, we present three studies showing that the mere mention or priming of money a) is assumed to be related to different types of selves and b) changes people's social behavior. These studies are taken as support of a new model that relates money to alterations in how the self's independence and interdependence.

Psychologists, economists, and marketers have long recognized that money is a potent motivator of behavior. Social scientists investigating the effects of money have primarily conducted broad, correlative analyses relating materialism and income to important life outcomes, such as subjective well-being (SWB). For example, Srivastiva et al. (2001) reported a negative relationship between money importance and SWB, meaning that people who held having money in high regard reported lower life satisfaction. Kasser and Ryan (1993) showed that the centrality of one's financial aspirations is associated with lower well-being as well as greater distress. Diener and Seligman (2004) conducted a comprehensive review of the literature and concluded that economic indicators are poor measures of well-being. These data are persuasive in their consistent findings that money does not seem to make life better, and a concern with money may in fact lead to more negative outcomes.

But could it be the case that money has both good and bad effects on the self? Some research indirectly indicates that money does change the self. Kasser and Ryan (1993) found that individuals who favoured financial success were shown to have higher control orientations. Falicov (2001) suggested that money enhances an individual's means for self expression, which

in turn results in greater autonomy. Srivastava (2001) found that the freedom of action or autonomy is one significant motive for making money. This finding implies that when people make more money, they become increasingly autonomous or self-efficacious.

Research on money and well-being has primarily construed money in terms of financial strain, personal income, or materialism/money importance. The vast majority of research and theory on the topic has been focused on the latter aspects — correlates of money attitudes — with far less known about effects of actual money. This work, while meaningful in understanding some of money's influences, is not the same as investigating whether and how the concept of money, *per se*, influences internal states and works to motivate behaviour.

It is important to note that money, on its own, is meaningless. Over time, across cultures, and because of people's shared understanding of the concept, however, money has been imbued with symbolism, meaning, and value. The fact that there are repeated, strong, and consistent associations between money and other constructs suggests that representations of money have the potential to activate certain mental, emotional, and motivational states.

We therefore took a slightly different approach to studying the effects of money. We manipulated money to signal either ample monetary resources or few monetary resources. Instead of focusing on correlates of money attitudes, we examined the psychological effects of money.

On a broader level, Kashima and Kashima (2003) found a sizeable correlation between affluence and individualism. This correlation is argued to result from affluence shifting the social conditions conducive to collectivism to that of individualism. In sum, there exists some data to suggest that money is associated with changes in the self. People with more money seem to become more autonomous than people with less money.

Accordingly, the goal of the following two studies was to provide evidence that money changes to the self. Study 1 assessed people's lay theories of whether different levels of monetary resources (being affluent versus being financially bereft) are related to different personality characteristics. Study 2 tested the effect of a money-prime (versus neutral prime) on willingness to partake in a dyadic versus solitary activity.

## EXPERIMENT 1

We first explored whether there were different layperson beliefs about the characteristics of people who have ample monetary resources as compared to people who lack financial resources.

### Method

Participants were asked to give a written account of the personality of person J, who was described either as having substantial financial resources or as having few financial resources. Responses were later coded by a judge blind to condition in terms of perceptions of sociability, competency, and overall evaluation of a person who possesses either substantial or few financial resources.

### Results

Overall, J was viewed attributed with more positive personality traits when described as having substantial financial resources than when J was depicted as having few financial resources,  $t(105) = 4.69, p < 0.05$ . J was viewed as more competent when J had substantial financial resources relative to when J had few financial resources  $t(99) = 3.62, p < 0.05$ . Finally, when J was said to have substantial financial resources, J was seen as possessing more positive social personality traits than when J had few financial resources  $t(65) = 3.70, p < 0.05$ .

## Discussion

In this experiment, having money was related to positive perceptions of a hypothetical person. Devoid of context, participants rated someone who had money as more positive on all three coding scales (more positive traits, more competent, and better social skills). Akin to the classic work on the halo effect of attractiveness (Dion, Berscheid, & Walster, 1972), the results of the first study indicate that money also acts as a halo effect –in zero-acquaintance contexts where not much else is known about the target, information that the target has more money will lead to more positive interpersonal perceptions, relative to if it is known that the target has less money.

## EXPERIMENT 2

In Study 2, we tested whether being unobtrusively primed with money affects people's desire to engage in social versus non-social behavior. We used images on a screensaver that was running on the desk where participants sat to complete questionnaires as the manipulation to prime money (versus an underwater prime). We tested whether participants would prefer to work alone or with another participant on an ensuring advertising task. Our hypothesis was that money makes people more autonomous and therefore people would choose to work alone rather than with another participant after being primed with money.

## Method

Participants were randomly assigned to receive a money or neutral supraliminal prime while completing a 10 minute questionnaire while seated in front of a computer. The questionnaire included innocuous questions taken from personality scales not often used in social science. After 6 minutes of completing the questionnaires, a screensaver appeared on the

computer screen. The screensaver either showed money (Canadian currency, to match participants' country's currency) floating in seawater, fish swimming around in seawater, or there was no screensaver. (Both screensavers were purchased from geliosoft.com and were matched in rate of flotation and overall activity.)

The experimenter returned after 10 minutes to collect the participant's questionnaire. Subsequently, they were told that another participant had just completed the same set of questionnaires. Participants were then presented with the dependent variable, a choice of whether to complete an ad development task alone or with the other participant. After obtaining the response, the participant was fully debriefed.

## Results

Participants' mood was unaffected by screensaver condition, as measured by the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988).

People's willingness to work on a relationship-based activity is significantly different when they received a money versus neutral supraliminal prime,  $C^2(2) = 10.00$ ,  $p < 0.01$ ,  $n = 37$ . Participants who were exposed to money concepts chose to work alone more frequently on the ad development task than those who were exposed to neutral concepts (see Figure 1). A post-experimental hypothesis probe ensured that participants were unaware of the supraliminal primes.

## EXPERIMENT 3

Study 2 showed that people who were primed with ample monetary resources wanted to work alone on an upcoming task more so than people who were primed with few monetary resources. In Study 3 we asked whether money also affects asking for help. Using a different

priming of ample versus few monetary resources, we examine length of time before participants asked for help with an unsolvable task. We hypothesized that participants would take longer to ask for help after being primed with ample monetary resources than when they were primed with few monetary resources.

## Method

Participants were randomly assigned to read in front of a videocamera that either depicted a student's life growing up in a financially restricted family or a life growing up in a financially comfortable family. They were told that the essays were written by another student and participants were asked to put themselves in the shoes of the writer while reading the essay. After reading the essays, participants were asked to work on a line tracing task that was unsolvable. A confederate posing as another participant was also in the experimental room to measure the length of time elapsed before asking for help on the unsolvable task. If the participant asked for help from the confederate, she would ring the bell to alert the experimenter, who then recorded the time. A twenty-minute ceiling was enforced, after which the experimenter would re-enter and have the participant stop the line-tracing task. Following the line-tracing task, participants were thanked and debriefed (during which participants were probed for suspicion of the confederate).

## Results

Participants in the high-money essay condition reported higher positive affect, and participants in the low-money essay condition reported higher negative affect, both measured by the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). However, differences in affect did not correlate with length of time to ask for help,  $r_s = ns$ . Controlling for differences in mood, participants who read the high money essay waited



significantly longer to ask for help from the confederate than participants who read the low money essay (see Figure 2),  $F(1, 32) = 4.26, p < .05$ .

## GENERAL DISCUSSION

Study 1 revealed that individuals hold layperson beliefs about money and its effects on the self. We found that individuals with money are perceived to be more competent, sociable and generally more positive than individuals with less money. In Study 2, we found that supraliminal exposure to money concepts makes people want to work alone rather than with a peer for an upcoming project. In Study 3, we showed that participants who were asked to read an essay about having a financially comfortable life were more hesitant to ask for help as compared to participants who were asked to read an essay about having a financially strained life.

These experiments point to two conclusions. One, these studies suggest that it is important for researchers to study the effects of money specifically and not generally. This means that experiments should manipulate the presence of money and test for its effects. Two, these studies indicate that the presence of money can be associated with a) different personality traits, and b) different social behavior. These results indicate that money does change people, and it is likely that consumer psychologists need to uncover more about how money affects people. We encourage researchers to test for the mere presence of money to see its important influence on human behavior.

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Figure 1

*Percentage of participants choosing to work alone versus together, as a function of fish versus blank versus money screensaver.*

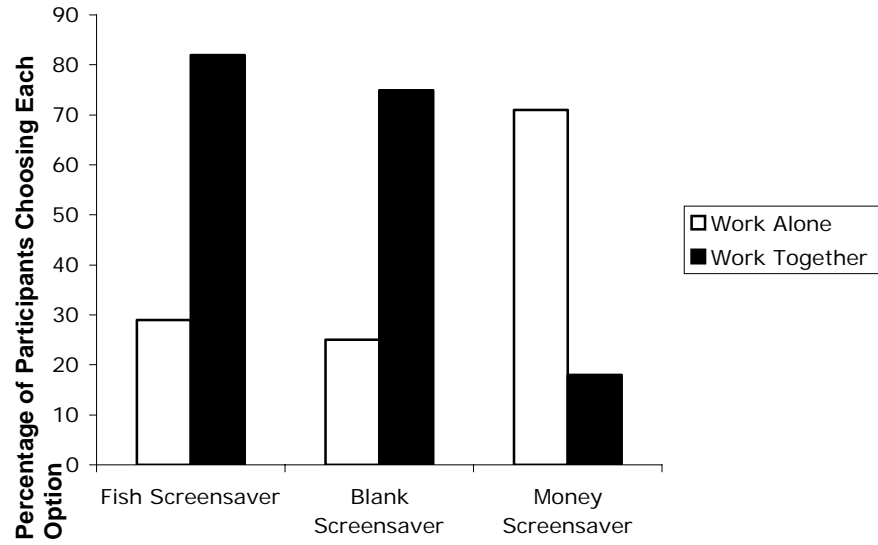
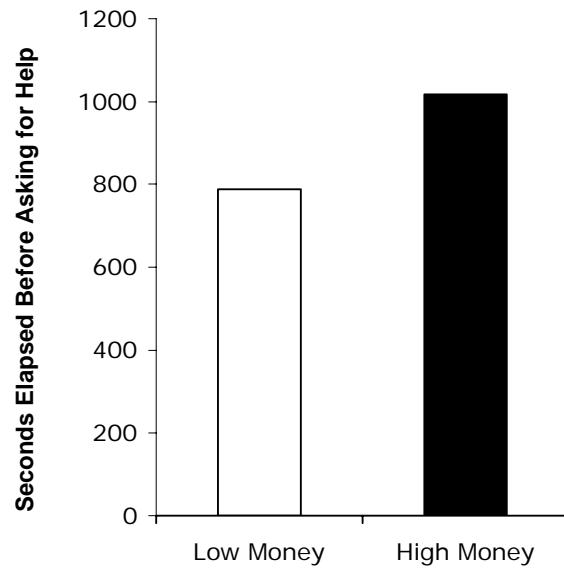


Figure 2

*Average length of time before asking for help as function of giving a speech about few or ample monetary resources.*



The Effect of Performance and Tolerance on Consumer Satisfaction: An  
Experimental Study

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**THE EFFECT OF PERFORMANCE AND TOLERANCE ON CONSUMER  
SATISFACTION: AN EXPERIMENTAL STUDY**

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## Abstract

Consumer satisfaction is in nature influenced by product performance and certain comparison standards. It is well recognized that consumers compare product performance with different types of standards to form satisfaction state. A classification scheme of comparison standards includes expected performance (i.e. expectations), deserved performance (i.e. norms), ideal performance (i.e. desires), and minimum tolerable performance (i.e. tolerance: high minimum tolerable performance = low consumer tolerance). While the first three standards and their impacts on consumer satisfaction have been investigated in previous research, little work has examined (1) if different levels of consumer tolerance lead to different levels of consumer satisfaction, and (2) the conditions (e.g. at high vs. low product performance) under which the tolerance impact is more pronounced.

In the present paper, we attempt to start filling this gap and examine the above mentioned by conducting a lab experiment. Two levels of consumer tolerance (high/low) and two levels of product performance (high/low) are manipulated in factorial design. Each subject's satisfaction (DV), tolerance (IV), and perceived performance (IV) are subsequently measured. Results show a significant main effect of tolerance, a significant main effect of performance, and a significant interaction effect. Specifically, tolerance becomes more diagnostic / influencing in forming satisfaction when consumers perceive product performance as low. Research and managerial implications are also discussed.



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