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The annual conference of the Society for Consumer Psychology was held at the Omni San Diego hotel in San Diego, California, February 12-14, 2009. This volume includes reports of the presentations made at the conference in symposia, individual paper sessions, and working paper sessions.

This year, the program offered a rich, diverse, and high quality array of consumer research topics. We received a record number of 270 submissions of which we accepted 68.5%. Specifically, acceptance rates were: symposia – 71.8%, individual papers – 32.8% were accepted into individual sessions and 30.5% were accepted as working papers, working papers – 83.3%. Due to the large volume of quality submissions, we added two additional tracks resulting in this year's conference featuring six consecutive tracks and two working paper sessions. Another highlight of this year's conference was the first SCP doctoral consortium which was held just before the conference. Over 80 doctoral candidates attended the consortium along with leading scholars and journal editors.

We want to thank the generous donors who stepped forward to support the conference and consortium including Kellogg School of Management, Northwestern University, Foster School of Business, University of Washington, Seattle, and Owen Graduate School of Management, Vanderbilt University. Finally, we wish to offer our sincere thanks to all of you who contributed by submitting your research, reviewing proposals, and participating in the conference and consortium. This was truly your conference and we hope you enjoyed it.

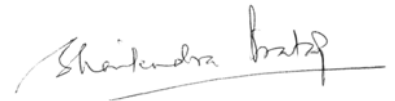
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SYMPOSIA AND INDIVIDUAL-PAPER SESSIONS

Novel Approaches in Understanding the Effect of Fluency in Consumer Behavior

Chair: Jeff Galak, New York University

Discussion Leader: Joseph Simmons, Yale University

Symposium Overview

Recent research on fluency and attribution has emerged in the consumer psychology literature and is proving to be both informative and exciting. Within the domain of consumer behavior, fluency has been shown affect, among other things, brand evaluations (Janiszewski and Meyvis, 2001), purchase intentions (Janiszewski and Chandon 2007), and product valuations (Labroo, Dhar, and Schwarz 2008). This line of research has expanded our understanding of how attributional judgments are made and how they can influence important components of consumers' lives. Despite the wealth of empirical investigations, many questions related to this topic still remain unanswered. Does fluency always lead to increased valuations or does the attribution depend on the consumers' mindset and the context in which the valuations are made? How does fluency impact perceptions of prices? When consumers struggle to generate one type of thought, how do counter-valanced thoughts influence judgment? Answering these questions will help consumer behavior researchers and marketing practitioners better understand how fluency affects decisions and will provide a more integrative framework for this area of research.

The first paper of this session, Galak & Nelson, questions the generally held belief that fluency leads to more positive valuations. In the context of writing quality and advertising, the authors demonstrate that when consumers are exposed to a utilitarian product or context, *disfluency*, and not fluency, leads to more positive evaluations. Across three laboratory experiments and one field study, they argue that because disfluency generates feelings of complexity and because, in these types of contexts, complexity is actually valued, presenting consumers with disfluent information leads to more favorable valuations. In contrast, when the product or context is hedonic, the opposite is true: complexity is perceived as aversive and thus disfluency leads to less favorable valuations.

The second paper, Thomas, Simon, and Kadiyali, demonstrates that consumers use fluency cues when forming subjective impressions of prices. Specifically, across four experiments and one field study, they argue that precise numbers (e.g. \$364,578) are disfluent, and that this disfluency can affect magnitude judgments. Because precise numbers are usually associated with smaller magnitudes, the disfluency induces consumers to judge precise numbers to be smaller than comparable round numbers. This "precision effect" is shown to be more prevalent under conditions of uncertainty and can be moderated by priming consumers with the opposite expectation: that large precise numbers are more prevalent than large round numbers. Importantly, their evidence suggests that the precision effect can manifest even for high involvement categories such as house purchases.

The final paper, Tormala, Falces, Brinol, & Petty, demonstrates that in both persuasion and self-evaluation contexts, the ease-of-retrieval effect (Schwarz et al., 1991) can be driven by the presence of unrequested cognitions (e.g., counter-valanced thoughts about the object in question). Specifically, across four experiments, they demonstrate that in the classic ease-of-retrieval paradigm, when it is difficult (low fluency) for people to generate the specific cognitions requested (e.g., positive thoughts about an object), they are more likely to spontaneously generate *unrequested cognitions* (e.g., negative thoughts about the object), and these unrequested cognitions can influence judgment. These findings reestablish the role of objective mental content in guiding the impact of subjective ease-of-retrieval.

Taken together the research papers in this session investigate fluency effects from multiple, yet related, theoretical perspectives with different conceptualizations of the topic. The authors of the papers span marketing and psychology offering an interdisciplinary view on the topic. As such the session will offer a novel perspective on the ways in which fluency affects the behavior of consumers and is expected to attract a broad audience interest at SCP.

Complexity is Good: When Disfluent Communication Signals Author Erudition

Jeff Galak, New York University*

Leif Nelson, University of California, San Diego

A wealth of research has documented the beneficial effects of fluency on judgments of, among other things, truth (Reber & Schwarz 1999), confidence (Norwick & Epley 2002), and even liking (Reber, Winkielman, & Schwarz, 1998). When the ease with which an item is being evaluated is high, the positivity of judgments generally increases. More specific to the present research, judgments of writing quality appear to be mediated by this same process. Namely, the easier it is to process the text being read—the more fluent it is—the higher the reader assumes the quality of the passage to be (Oppenheimer 2006). Across a series of studies, Oppenheimer demonstrates that when passages are made disfluent, readers see them as having lower quality. In contrast to this finding, Armstrong (1980) documented that readers of academic journals associate more complex writing with higher quality. This latter finding then suggests that disfluency, and not fluency, leads to perceptions of quality, a finding that is inconsistent with the majority of the fluency literature. As such, the goal of the present research was to examine both why and when this might be true.

As an initial test of these two opposing hypotheses we presented participants with a news article and asked them to evaluate both the quality of the writing and the complexity of the vocabulary (Experiment 1). Furthermore, we manipulated the fluency of the passage by printing it either in an easy to read (Times New Roman) or difficult to read (Haettenschweller) font. This type of font manipulation has been widely used to vary the degree of processing fluency experienced when reading text (e.g. Simmons and Nelson 2006). Consistent with the Armstrong (1980) finding, we observed that those participants who read the passage in a difficult to read font—one that engendered *disfluency*—led to perceptions of higher quality. Also consistent with the notion that fluency moderates the perception of complexity, the disfluent passage was reported to be more complex than the fluent one.

If fluency is in fact the underlying process, then attributing the difficult to read font to someone other than the author of the passage is likely to eliminate the effect and confirm our primary contention (Oppenheimer 2004). In Experiment 2, participants were asked to edit an essay about the music industry on a version of MS Word that we modified to disallow font changes. The passage was presented to them either in an easy to read or a difficult to read font. Orthogonal to this manipulation, approximately half of the participants were told that the reason for the font was due to a limited license for MS Word, thus moving the attribution of the font from the author to us, the experimenters. After editing the document, we asked participants to report how many changes they made to it. Presumably, the higher the perceived quality of the initial document, the fewer the number of changes participants would make. Consistent with our previous findings, in the no-attribution condition, participants reported making fewer changes to the disfluent version of the document.

Furthermore, consistent with the misattribution paradigm, when the reason for the font was made explicit, there was no difference in the number of changes participants reported making.

Although these findings all seem to speak to Armstrong's (1980) conclusion, we are still left without an explanation for why sometimes (Oppenheimer 2006) fluency is preferred. One answer lies in recent research on the desire for hedonic and utilitarian products as a function of processing fluency. Pocheptsova, Labroo, and Dhar (2008) found that when information about a hedonic product is perceived to be disfluent, consumers' evaluations of that product increase. The authors attribute this variability to the fact that consumers likely feel that information about a disfluent product implies scarcity and thus value. This suggests that fluency does not universally result in positive evaluations, but rather that the attributions caused by fluency lead to a secondary inference as a function of the context the judgment is being made in (in this case, hedonic vs. utilitarian).

As such, it is possible that there are some contexts in which complexity, the mediating variable between fluency and judgments of writing quality, is perceived to be positive, and others where it is perceived to be negative. In Experiment 2, participants read a short story in an easy to read or a difficult to read font. Orthogonal to this, we manipulated the framing of the task as either hedonic or utilitarian. Participants in the utilitarian (hedonic) frame were told that the study was called "Historical Analysis Study" ("Short Story Study") and that they were to read the story and "indicate how you think it fits with the time period it was written in" ("then tell us how much you enjoyed it".) Participants in the utilitarian frame, the one most similar to our first two studies and those of Armstrong, evaluated the passage more favorably when it was

disfluent. In contrast, participants in the hedonic frame, the one more similar to the studies of Oppenheimer (2006), evaluated the passage more favorably when it was fluent. These results suggest that inferences about fluency depend on the context in which the target is being evaluated.

Finally, to test this effect in a natural setting, we conducted a field study using online advertisements. Experiment 4 was a conceptual replication of our previous study except that rather than reading a short story, we created online ads that consumers could click on. Specifically we created a hedonic (for cupcakes) and utilitarian ad (for carrots) and manipulated the fluency of each by changing the color of the font so that it is either in high (high fluency) or low (low fluency) contrast with the background. 373,069 users of the online social website Facebook were randomly exposed to one of these four ads and we observed the rate with which they clicked on them. Consistent with our hypotheses, when the ads were of a utilitarian (hedonic) nature, the click rate was higher for the disfluent (fluent) ad.

The Precision Effect: How Expectation Violation Affects Real Estate Prices

Manoj Thomas, Cornell University*

Daniel Simon, Cornell University

Vrinda Kadiyali, Cornell University

In a seminal article on cognitive reference points, Rosch (1975) demonstrated that people are more likely to use multiples of 10 as cognitive reference points because these numbers occur more frequently than other numbers. We extend this stream of research to investigate whether the roundness of a price influences magnitude judgments and buyer behavior. Although in this paper we restrict our focus to the magnitude judgments of prices, our findings on the effects of roundness are relevant to magnitude judgments of numbers in general.

Our conceptual model has two key components. First, we propose that a large precise price (e.g., \$364,578) violates expectations and thus evokes a feeling of uncertainty in buyers. Second, this uncertainty induces people to consider the covariation between precision and magnitudes, resulting in bias in the perceived magnitude, and consequently in buyer WTP.

Expectation Violation and Feeling of Uncertainty. Magnitude judgment of a large precise price evokes a feeling of uncertainty. People have expectations about the covariations of various attributes in the environment, and these expectations guide their perceptual and cognitive processes. Violations of these expectations can result in a feeling of uncertainty (see Kahneman and Tversky 1982 for a detailed discussion on violations of expectations and resultant uncertainty). In the context of prices, buyers expect large multi-digit prices to be rounded to the nearest convenient unit. For example, a buyer might expect a price in hundreds of thousands to be rounded to the nearest thousand, and a price in millions to be rounded to the nearest million. These expectations are violated and the processing becomes disfluent when she encounters a large price that is not rounded.

Why do people expect larger numbers to be rounded? Research on the distribution of numbers has found that in spoken as well as written communication, rounded numbers are more prevalent than exact or precise ones to refer to large magnitudes. For example, Dehaene and Mehler (1992) analyzed the frequency of number words in word frequency tables for English, Catalan, Dutch, French, Japanese, Kannada and Spanish languages. They found that although the small numbers used in daily communication are not rounded (e.g., 1, 2, 3, ... 8, and 9), large numbers are often rounded to the nearest multiple of 10 (e.g., 10, 20, ..., 100, 200). Stated differently, larger precise numbers (e.g., 11, 12, 13, ... 19, 21, 22, 23, ... 29, ... 99, 101, 102, 103, ... 109, 111, 112, 113, ...) are used relatively infrequently in daily communication (see too Dorogovtsev, Mendes and Oliveira (2005) and Jansen and Pollmann (2001)). Because of the relatively infrequent occurrence of large precise numbers, a large precise price such as \$364,578 could evoke a feeling of uncertainty.

The Effect of Expectation Violation on Magnitude Judgments. The uncertainty induced by precision can influence the perceived magnitude of a large precise price. Because the uncertainty is experienced during the magnitude judgment task, the cognitive system infers that the feeling is pertinent to the magnitude of the price and it considers the implications of precision for the magnitude of the price. Since precise numbers are usually used for smaller magnitudes (Dehaene and Mehler 1992), the cognitive system expects precise prices to have smaller magnitudes. Consequently, under conditions of uncertainty, buyers judge precise prices (e.g., \$364,578) to be smaller than round prices of similar magnitude (e.g.,

\$364,000). We refer to this psychological phenomenon as the “precision effect” in magnitude judgments. *Empirical Studies.* We report results from five studies conducted to understand the precision effect. The first three studies are laboratory experiments designed to test the existence of the precision effect and examine the underlying psychological processes. In Study 1, we find that precise prices are judged to be smaller than round prices of similar magnitudes. For example, participants in this experiment incorrectly judged \$395,425 to be smaller than \$395,000. In Study 2, we show that precision is more likely to affect magnitude judgments under conditions of uncertainty. Study 3 demonstrates that prior experience with roundness of large numbers creates an expectation that precise numbers are usually smaller, and manipulating this expectation can moderate the precision effect. Studies 4 and 5 examine whether the precision effect influences buyers’ willingness-to-pay for houses. In Study 4, in an online experiment on a nationally representative sample of home owners, we demonstrate that participants are willing to pay a higher price for houses when the sellers use precise (e.g., \$364,578) instead of comparable but higher round (e.g., \$365,000) prices. In Study 5, we analyze data from more than 27,000 residential real estate transactions in two separate markets, and find that buyers pay higher sale prices when list prices are more precise.

Rethinking the Role of Mental Content in Processing Fluency: Unrequested Cognitions and the Ease-of-Retrieval Effect

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The importance of mental content in consumer judgment is well-documented. The cognitive response paradigm (Petty, Ostrom, & Brock, 1981), for example, has shown that the thoughts people generate in response to persuasive messages can be critical determinants of both immediate and long term persuasion. Similarly, research on role playing suggests that asking people to self-generate arguments about an issue can elicit attitude change in the direction of the arguments that come to mind (Janis & King, 1954). Interestingly, though, research exploring metacognitive factors in judgment formation suggests that it is not just the content of cognition that matters, but also the subjective experience of ease, or fluency, with which that content comes to mind. Perhaps most prominent, research on the *ease-of-retrieval effect* has indicated that the subjective feeling of ease/fluency is so important that it sometimes overrides, even reverses, the impact of cognitive content on judgment.

In their now classic studies, Schwarz and colleagues (1991) asked participants to recall 6 or 12 instances of their own assertive behavior. They found that participants believed they were more assertive after recalling 6 rather than 12 instances, basing their judgments not on the number of assertive behaviors retrieved, but rather on the subjective experience of ease or difficulty with which those assertive behaviors came to mind. When it was difficult to recall assertive behaviors, because many were requested, participants inferred that they must not be very assertive. Since this initial finding, the ease-of-retrieval effect has been applied to numerous domains, including persuasion (Tormala, Petty, & Briñol, 2002), likelihood estimation (Wänke, Schwarz, & Bless, 1995), and subjective well-being (Hermann, Leonardelli, & Arkin, 2002), among others. The common emphasis across domains has been that subjective ease can overwhelm the impact of cognitive content.

The present research explores a new mechanism for the ease-of-retrieval effect that reestablishes the importance of cognitive content. It is proposed that in the classic ease-of-retrieval paradigm, when it is difficult for people to generate the specific cognitions requested (e.g., positive thoughts about an object), they are more likely to spontaneously generate *unrequested cognitions* (e.g., negative thoughts about that object), and the presence of these unrequested—or opposing—cognitions can affect judgment. As people try to generate a large, difficult number of arguments in favor of buying a new car, for instance, they might spontaneously think of a few arguments *against* buying the car as they struggle to complete the task. In fact, the harder individuals try to suppress unrequested cognitions and focus only on requested cognitions, the more likely it might be that unrequested cognitions come to mind (Wegner, 1994). If true, these unrequested cognitions could shape judgment.

Experiment 1 tested this hypothesis in a persuasion context. Undergraduate participants were led to believe that their university was considering a new policy requiring seniors to pass comprehensive exams in their major areas prior to graduation (see Petty & Cacioppo, 1986). All participants received a persuasive message advocating this policy, after which they were randomly assigned to generate 2 (easy) or 10 (difficult) positive thoughts about it. Following this task, participants reported their attitudes toward the policy as well as the number of negative thoughts (i.e., unrequested cognitions) that came to mind during the thought listing. As hypothesized, participants reported less favorable attitudes toward the exam policy, and more unrequested negative thoughts about it, after listing 10 rather than 2 positive thoughts. Moreover, the number of unrequested negative thoughts reported mediated the attitude effect. Thus, the more difficult it was to generate the requested cognitions, the more unrequested cognitions came to mind, and these unrequested cognitions explained the attitude outcome.

In Experiment 2, participants again were introduced to the comprehensive exam policy, but this time no persuasive message was presented. Moreover, participants in this study were assigned to generate 2 (easy) or 10 (difficult) *negative* thoughts, or counterarguments, against the policy. We also asked participants to indicate their unrequested cognitions (in this case, positive thoughts) as they occurred, rather than from memory later in the session. Despite these modifications, we conceptually replicated Experiment 1. Participants reported more favorable attitudes toward comprehensive exams, and more unrequested positive thoughts, after listing 10 rather than 2 counterarguments against the policy. Again, unrequested cognitions mediated the attitude effect.

Experiment 3 moved away from the persuasion domain and examined the role of unrequested cognitions in the original ease-of-retrieval paradigm in which participants retrieved few or many instances of their own assertive behavior and rated themselves on assertiveness (Schwarz et al., 1991). Experiment 3 also aimed to rule out several alternative explanations for the findings. Specifically, we equated time spent on the thought listing task across the easy and difficult conditions, and we measured both unrequested cognitions (memories of unassertive behaviors) and irrelevant cognitions (any other thoughts or memories). Despite no differences in time spent on the task, participants rated themselves as less assertive, and reported more unrequested unassertive cognitions, after recalling 10 rather than 2 instances of assertiveness. The unrequested cognition effect mediated assertiveness judgments, and there was no difference in irrelevant cognitions across conditions.

A fourth and final experiment revealed that the unrequested cognition mechanism was independent from previously identified mediators of the ease-of-retrieval effect such as self-reported difficulty and the confidence people have in their requested cognitions (see Tormala et al., 2002).

In summary, this research establishes the importance of mental content in the classic ease-of-retrieval effect. When people struggle to generate one type of cognition, unrequested opposing cognitions come more readily to mind, and the presence of these cognitions affects subsequent judgment. This finding has numerous and important implications for consumer behavior. As but one example, understanding that previously hidden mental content plays a role in the ease-of-retrieval effect sheds new light on the controversy over whether ease effects are fostered or hindered by extensive information processing activity. Implications for this and other issues are discussed.

Consumer Learning, Loyalty, and Brand Relationship

Chair: Tim Silk, University of British Columbia, Canada

Long-Term Effects of Advertising to Children on Judgment in Adulthood

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In this research, we argue that brand relationships that are formed in early childhood have unique properties that make them especially prone to create attitudinal biases that favor them. This is because they were first experienced when the individual had limited ability to effectively defend against advertisements. That is, children do not understand advertisements in the same way that adults do. Rather, they incrementally gain knowledge about advertising as they age (John, 1999). As children age and develop the ability to take the perspective of others, they typically recognize the advertiser's intent to persuade them by age seven or eight (Ward, Wackman, & Wartella, 1977).

In their persuasion knowledge model, Friestad and Wright (1994) argue that as individuals age and gain persuasive knowledge, they spontaneously correct for previous bias through what the authors call a "change of meaning." However, this argument was conceptual, discussed rather briefly, and was not supported with empirical evidence. Petty and Brinol (2008) assert that bias correction is best facilitated when individuals elaborate more on messages (i.e., when motivation and ability to think are high). Based on this position, we challenge the change of meaning assumption in the persuasion knowledge model. That is, individuals may not be aware of their previous biases (i.e., favorable attitudes toward a brand that were developed before the development of persuasion knowledge), and subsequently do not correct bias. Similarly, individuals may not be sufficiently motivated to correct bias.

Because these brand relationships are situated in the past, we argue that they are housed in the autobiographical memory store. Autobiographical memories are those memories that comprise one's life story, and are believed to be of fundamental significance to the self (Conway & Pleydell-Pearce, 1999). As a consequence of their importance to the self, autobiographical memories tend to be affect laden (Conway, 2005). Previous consumer research on autobiographical memory has found that cueing autobiographical memories can lead to attenuation in information processing, due to their affective nature (Sujan, Bettman, & Baumgartner, 1993).

Given that such attitudinal bias in judgments may occur from these brand relationships, we investigate possible public policy interventions to facilitate bias correction. Previous research has found that motivational primes can lead to behavior congruent with the prime (Bargh et al, 1992). Therefore, in experiment 1 we explore the potential effectiveness of such primes. In this experiment, 231 participants were randomly assigned to one of two autobiographical memory manipulations: either a relevant (Tony the Tiger) or irrelevant (Play-doh) advertising image from childhood. After visualizing and recording their memory, participants then completed mood (PANAS; Watson, Tellegen, & Clark, 1988) and emotion (feeling thermometer; Greenwald, McGhee, & Schwartz, 1998) measures. Participants then rated a popular childhood food product (Kellogg's Frosted Flakes) on an inventory of five nutrition-related product attributes (e.g., fiber content) embedded within nine other cereal-related product attributes (e.g., stays crunchy in milk). Participants then provided demographic and cereal consumption information, were probed for suspicion, debriefed, and thanked for their participation.

A significant 3-way interaction of prime, image and felt emotion were observed on the judgment dependent variable ($F_{2,227}=3.373, p=.036$). When primed for health, participants who were cued for memory of a food-relevant advertising object (Tony the Tiger) and felt higher levels of positive emotion toward it evaluated the associated product (Kellogg's Frosted Flakes) as more nutritious than participants who experienced lower levels of positive emotion, whereas there was no significant difference in judgment among participants cued for memory of the irrelevant childhood consumption referent (Play-doh).

In seeking to generalize these results to other childhood brand relationships, it is important to examine the time frame in which the relationship was formed. The results of experiment 1 do not isolate early childhood as the source of advertising-based affect, leaving this issue open to speculation. We directly address this limitation in experiment 2 by

comparing an early childhood advertising icon (Tony the Tiger, which has been continuously and heavily advertised to children since 1951 and presumably would have been experienced at a very early age) with a late childhood (after age 8) advertising icon (M&Ms characters, which were introduced in 1998, after participants in the study would have gained persuasion knowledge). The procedure was similar to that used in experiment 1, except that participants judged a fictitious new product that featured the relevant early (Tony the Tiger) or late (M&Ms characters) childhood advertising object on the packaging. Results of experiment 2 reveal that participants displayed biases for early, but not late, childhood advertisements in the same pattern of results observed in experiment 1 ($F_{1,189}=3.897, p=.05$). That is, participants who were primed for health and cued for memory of the early childhood objects (Tony the Tiger) and felt higher levels of positive emotion toward it evaluated an associated fictitious product as more nutritious than participants who experience lower levels of positive emotion, whereas there was no significant difference in judgment among participants cued for memory of the late childhood consumption referent (M&Ms).

Results from this research indicate that affect-laden memories of childhood advertisements have an effect on consumer judgments of product attributes, resulting in biases in favor of the brand. Results also indicate that the stage at which childhood advertisements is encoded into memory matters, as the above-stated biases are observed for participants cued for memory of early childhood advertising, but not for participants cued for memory of late childhood advertising. We attribute these differences to the development of persuasion knowledge in late childhood that facilitates skepticism toward advertisements. However, this skepticism appears to be directed only to advertisements seen after persuasion knowledge is gained. Furthermore, adults fail to metacognitively correct for previous bias, as has been previously supposed. Given that adults fail to correct for previous bias on their own, policy initiatives that might facilitate bias correction are explored. Priming health appears to have limited use, as only participants with higher levels of felt affect resisted changing their attitudes toward products associated with advertising experienced in early childhood.

Bargh, J. A., Chaiken, S., Govender, R. & Pratto, F. (1992), "The generality of the automatic attitude activation effect," *Journal of Personality and Social Psychology*, 62, 893-912.

Conway, M.A.(2005),"Memory and the self,"*Journal of Memory and Language*, 53, 594-628.

Conway, M. A. & Pleydell-Pearce, C.W. (2000),"The construction of autobiographical memories in the self-memory System," *Psychological Review*, 107, 261-88.

Friestad, M. & Wright. P. (1994), "The persuasion knowledge model: how people cope with persuasive attempts," *Journal of Consumer Research*, 21, 1-31.

Greenwald, A. G., McGhee, D. E., & Schwartz, J.L.K. (1998), "Measuring individual differences in implicit cognition: The implicit association test," *Journal of Personality and Social Psychology*, 74, 1464-80.

John, D. R.(1999), "Consumer socialization of children: A retrospective look at twenty-five years of research," *Journal of Consumer Research*, 26, 183-213.

Sujan, M., Bettman, J.R., and Baumgartner, H. (1993), "Influencing consumer judgments using autobiographical memories: A self-referencing perspective," *Journal of Marketing Research*, 30, 422-36.

Ward, S., Wackman, D. & Wartella, E. (1977), *How children learn to buy: The development of consumer information-processing skills*, Beverly Hills, CA: Sage.

Watson, D., Clark, L. A. & Tellegen, A. (1988), "Development and validation of brief measures of positive and negative affect: The PANAS scales," *Journal of Personality and Social Psychology*, 98, 1063-70.

It is Not What You Get but When You Get It: The Effect of Gift Sequence on Deposit Balances and Customer Sentiment in a Commercial Bank

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Customer loyalty programs can be effective in increasing sales and generating positive sentiment (Drèze & Hoch, 1998). However traditional customer loyalty programs are associated with numerous problems. As customers adapt to rewards and come to expect them, these programs are becoming more and more a defensive measure needed to stay competitive,

rather than a source of competitive advantage. Further, the complexity of cashing in rewards and the information bombardment from multiple competing programs may frustrate consumers. The aim of the current research is to address these concerns with a novel loyalty program design based on two principles from behavioral decision research - reciprocity and preference for increasing sequences - and to further theory development in these areas of research. Reciprocity is a basic human instinct and consequently, gifts have powerful effects on behavior (Cialdini, 1985). Much research has documented the influence of gifts on consumer behavior (e.g., Bodur & Grohmann, 2005), charitable giving (e.g., Falk, forthcoming), and worker productivity (e.g., Bellemare & Shearer, 2007; Gneezy & List, 2006). However, previous research has not addressed the longitudinal effects of different patterns of gift-giving. The primary goal of the current study is to show that the sequence of gifts is a critical factor in the efficacy of the gift-giving. From a practical standpoint, rewarding customers using gifts instead of a transactional points system simplifies both the administration of the program and the cognitive and attentional demands placed on customers.

The sequence of outcomes over time has been shown to influence the overall evaluation the experience in two overlapping streams of literature – the time discounting literature and the literature on the ‘psychophysics’ of hedonic experience. Experiments that compare distributing a fixed amount of money or wages over time find that people prefer rising sequences (going from small to large) to falling sequences (going from large payments to small) (Loewenstein and Sicherman, 1991; Schmitt & Kemper 1996). This preference for improving trends has been demonstrated in numerous other domains, ranging from academic performance (Hsee & Abelson, 1991) to stock performance (Ariely & Zauberman, 2000) to short-term health outcomes (Chapman, 1996). This effect holds for both aversive sequences (e.g., Varey & Kahneman, 1992) and pleasurable sequences (e.g. Baumgartner, Sujan, and Padgett, 1997). However, research has not yet examined whether preferences for increasing outcomes translates into greater appreciation for increasing outcomes or whether increasing outcomes are more motivating. This study examines whether increasing, rather than decreasing, sequences of gifts results in a greater behavioral response to reinforcements.

In a longitudinal field experiment conducted with depositors at a commercial bank, we tested whether this pattern of preference holds for customer responses to gifts. Participants were high-balance customers who the bank believed utilized multiple banks, and thus had discretion about where to keep their money on deposit. Thus, the main dependent variable was the account balance. Depositors were randomly assigned to either a no-gift control group, or to one of several experimental conditions in which they received gifts at one or two time points. The sequence of gift value was either increasing (\$35 then \$100 gift), decreasing (\$100 then \$35 gift), or a single gift. We also manipulated gift type (gas vs. restaurant gift certificate) and whether or not the accompanying message suggested to customers that they could reciprocate the gift by contacting the bank to set up new services. Subsequent to receiving the gifts, customers were mail a short survey which asked about their satisfaction, trust, and feelings of loyalty towards the bank and feelings of entitlement to free gifts from the bank. Survey response rates and measures were used as secondary dependent variables. Time series analysis revealed that gifts had a significant positive effect on deposit balances compared to the non-gift control group. This effect was reflected in the survey response rate and measures of customer satisfaction, trust, and loyalty. Within gift conditions, the cost sequence of the gift was the most important factor. Increasing sequences resulted in significantly higher deposit balances than decreasing sequences. The negative impact of a decreasing sequence was so strong that a decreasing trend was worse than simply giving the initial gift with no second follow-up gift and was comparable to the no-gift control condition. The survey response rate and measures do not track these results clearly but show interesting trends, such as increased feelings of entitlement to free gifts in the worsening conditions. There was no effect for gift type (restaurant or gas card) or for the cost of the gift at time 1 prior to delivery of the second gift. Accompanying messages that encouraged reciprocation had a positive effect on deposit balances, but only for newer bank customers. Results suggest that using peoples inclinations towards reciprocation and preferences for increasing sequences are potentially fruitful strategies for designing effective customer loyalty programs.

Ariely, D., & Zauberman, G. (2000). On the making of an experience: The effects of breaking and combining experiences on their overall evaluation. *Journal of Behavioral Decision Making*. 13(2), 219-232.

Baumgartner, H., Sujan, M., & Padgett, D. (1997). Patterns of affective reactions to advertisements: The integration of moment-to-moment responses into overall judgments. *Journal of Marketing Research*. 34(2), 219-232.

- Bellemare, C. and Shearer, B. (2007). Gift exchange within a firm: Evidence from a field experiment. IZA Discussion Paper No. 2696.
- Bodur, O. H. & Grohmann, B. (2005). Consumer responses to gift receipt in business-to-consumer contexts. *Psychology & Marketing*, 22, 441-456.
- Chapman, G. B. (1996). Expectations and preferences for sequences of health and money. *Organizational Behavior and Human Decision Processes*, 67, 59-75.
- Cialdini, R. B. (1985), *Influence: Science and Practice*, Glenview, IL: Scott, Foresman and Company.
- Falk, A. (forthcoming) Gift-Exchange in the Field. *Econometrica*
- Gneezy, U., & List, J. A. (2006). Putting behavioral economics to work: Testing for gift exchange in labor markets using field experiments. *Econometrica*, 74, 1365-84.
- Hsee, C., & Abelson, R. (1991). Velocity relation: Satisfaction as a function of the first derivative of outcome over time. *Journal of Personality & Social Psychology*, 60, 341–347.
- Loewenstein, G., & Sicherman, N. (1991). Do workers prefer increasing wage sequences? *Journal of Labour Economics*, 9, 67–84.
- Schmitt, D. R., & Kemper, T. D. (1996). Preference for different sequences of increasing or decreasing rewards. *Organizational Behavior and Human Decision Processes*, 66, 89–101.
- Varey, C. A., & Kahneman, D. (1992). Experiences extended across time: Evaluation of moments and episodes. *Journal of Behavioral Decision Making*, 5, 169-185.

Schedules of Reinforcement, Learning, and Frequency Reward Programs

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Recent studies have applied principles of operant conditioning to provide insight into consumer behavior in response to frequency reward programs (hereafter FRP's) (e.g., Kivetz 2005; Kivetz et al. 2006). These studies have focused primarily on fixed ratio reinforcement schedules and have yet to examine other types of schedules, such as variable ratio schedules, found to generate higher rates of response in other research domains (e.g., Berns et al. 2001, Ferster and Skinner 1957; Yukl et al. 1972). This research examines the impact of variable ratio schedules in an FRP context. Our findings reveal a response paradox in which consumers predict they will purchase more frequently and be more satisfied with predictable fixed ratio schedules; yet actually respond most rapidly to unpredictable variable ratio schedules. We demonstrate that variable ratio schedules impede learning and decrease psychological distance to the reward, resulting in hyper-stimulation, an absence of post-reward cessation, and faster rates of response. While firms may be tempted to develop programs based on consumers' subjective preferences for fixed-ratio schedules, variable schedules are capable of generating greater returns over a fixed number of rewards.

Research in operant conditioning and neuroscience has shown that variable ratio (VR) schedules generate faster rates of response than fixed ratio (FR) schedules using the same number of reinforcements (e.g., Berns et al. 2001, Ferster and Skinner 1957). This implies that VR schedules have the potential to generate a greater number of purchases over a fixed period of time with no increase in the cost of rewards. The different response rates for FR and VR schedules is attributed to differences in the rate of learning each schedule. Fixed schedules are learned relatively easily since the reward recurs consistently after every nth purchase. Once the schedule is learned, subjects accelerate their behavior as they draw closer to the next reward. However, participants in FR schedules also exhibit periods of inactivity immediately following a reward when the perceived distance to the next reward is at its greatest.

In contrast, VR schedules are learned less easily because the occurrence of each reinforcement varies randomly over successive trials. The impeding affect of variability on learning is supported by research on multiple-cue learning (e.g., Mellers 1980), which shows that people have difficulty learning patterns that contain even small levels of error or randomness. Because the reward occurs randomly and can be acquired (potentially) after any single operant response, perceived distance to the reward decreases, motivation to respond increases, and participants respond without cessation even after a reward is experienced. This eliminates the post-reward pause observed with FR schedules, resulting in faster

rates of response. Variability can also influence preference for reinforcement schedules when the schedules are disclosed. Wilson et al. (2005) find that people forecast that they will be happier when the timing of reinforcements is predictable. Yet, paradoxically, positive moods (Wilson et al. 2005) and neural responses (Berns et al. 2001) tend to last longer when the timing of reinforcements is uncertain.

Experiment 1 examined consumer's predictions about how they would respond to three reinforcement schedules under consideration at their favorite coffee shop. Descriptions of three reinforcement schedules were presented within-subjects: (1) FR5, (2) VR5 with high variability, (3) VR5 with low variability. Consumers' predicted they would purchase more frequently and be more satisfied under the FR5 schedule, followed by the VR5 with low variability, and the VR5 with high variability. Thus, purchase frequency and satisfaction was inversely related to the variability of the reinforcement schedule.

Experiment 2 examined consumer's actual behavior in response to FR and VR schedules. The study also examined the extent to which reward timing variability influences learning, perceived distance to the reward, and post-reward cessation. The procedure required participants to complete a series of 50 anagram word puzzles. Subjects were randomly assigned to one of four reinforcement schedules and rewarded with M&M candies according to the assigned schedule. Condition 1 served as a control condition involving no rewards. Condition 2 was an FR5 condition in which participants were rewarded after every 5th trial. Condition 3 was a VR5 schedule with low variability in which participants received a reward randomly after every four to six trials. Note that the VR schedule with low variability is equivalent to introducing a small amount of variance to an FR schedule. We were essentially testing whether minimal amounts of variance would impede the learning of an FR schedule. Condition 4 was a VR5 schedule with high variability in which participants were rewarded randomly after every two to eight trials, thus making the predictability of the rewards more difficult.

Consistent with the learning hypothesis, the VR5 high variability condition generated the fastest rate of response. The FR5 schedule increased the rate of response relative to the no-reward control condition, but was significantly slower than the VR5 high variability condition. Interestingly, the difference between the FR5 and VR5 low variability conditions was not significant. We next examined the change in mean response time over each set of ten trials for differences in the rate of learning. We observed a significant condition x trial interaction, indicating that the slope of the response times across the sets of trials were significantly different across conditions. Response times in the control condition slowed in later trials, a pattern consistent with fatigue. Response times in the FR5 condition decreased in the middle trials and leveled off in later trials, a pattern consistent with learning. Response times in the VR5 low variability condition resembled those of the FR5 condition, suggesting similar rates of learning. Further analysis revealed that subjects in the VR5 high variability condition did not exhibit post-reward pauses associated with knowing the schedule; suggesting that participants failed to learn the schedule and remained in a state of constant reward anticipation (hyper-stimulation). When asked to predict the number of trials until the next reward, subjects in the VR high variability condition predicted significantly fewer trials compared to those in the FR5 condition, demonstrating that high variability decreases perceived distance to the reward. Our findings demonstrate the dissociation between subjective preference and actual behavioral response. We show that variable schedules impede learning and decrease the psychological distance to the next reward, resulting in hyper-stimulation, an absence of post-reward cessation, and faster rates of response. While firms may be tempted to develop programs based on consumers' subjective preferences for fixed-ratio schedules, variable schedules are capable of generating greater returns over a fixed number of rewards. Although this study allows the examination of the underlying response to variable reward administration, it remains to be seen how consumers participate in either an FRP scenario or field study. To this end, we intend to conduct a field study in which consumers' rates of purchase are tracked longitudinally across reward conditions.

Berns, Greg S., Samuel McClure, Giuseppe Pagnoni, and Read Montague (2001), "Predictability Modulates Human Brain Response to Reward," *The Journal of Neuroscience*, 21 (8): 2793-2978.

Ferster, Charles B. and Burrhus F. Skinner (1957), *Schedules of Reinforcement*. New York: Appleton-Century-Crofts, Inc.

Kivetz, Ran (2005), "Promotion Reactance: The role of Effort-Reward Congruity," *Journal of Consumer Research*, 31: 725-736.

Kivetz, Ran, Oleg Urminsky, Yuhuang Zheng (2006), "The Goal-Gradient Hypothesis Resurrected: Purchase

- Acceleration, Illusionary Goal Progress, and Customer Retention,” *Journal of Marketing Research*, 43, 39-58.
- Mellers, Barbara A. (1980), “Configurality in Multiple-Cue Probability Learning,” *The American Journal of Psychology*, 93, 3, 429-443.
- Wilson, Timothy D., David B. Centerbar, Deborah A. Kermer, and Daniel T. Gilbert (2005), ”The Pleasures of Uncertainty: Prolonging Positive Moods in Ways People do not Anticipate,” *Journal of Personality and Social Psychology*, 88 (1): 5-21.
- Yukl, Gary A., Kenneth N. Wexley, and James D. Seymore (1972), “Effectiveness of Pay Incentives under Variable Ratio and Continuous Reinforcement Schedules,” *Journal of Applied Psychology*, 569 (1); 19-23.

Market Climates Anchor and Calibrate Determinants of Consumers' Behavioral Loyalty in Relational Exchanges

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Although several studies affirm that consumers hold generalized beliefs about the marketplace that they organize into lay theories or working models to cope effectively with market exchanges, progress has been slow in advancing constructs of consumers' marketplace metacognitions. To address this gap, the present study draws on lay theories to (a) conceptualize and operationalize a construct of “market climate”, (b) develop logics to hypothesize market climate's influence on consumers' behavioral loyalty, and (c) test hypotheses in a cross-cultural context involving consumers' ongoing exchanges relationship with an individual firm.

A cross-national study in the insurance industry (United States, Netherlands, and Germany) was conducted to develop and validate the market climate constructs, and assess its cross-cultural generalizability. Sampling plans and field procedures were coordinated cross-nationally. Random samples of consumers were selected from commercial lists. The final usable sample was n=746 and response rates were 26%, 28%, and 17% in Germany, Netherlands, and United States respectively. Scales for the measurement of the market climate construct were developed based on 40 qualitative interviews and purified using 28 judges and a pretest study. A refined list of 23 items was developed. Existing scales were used for satisfaction, firm and frontline employee trust, value and behavioral loyalty.

We followed a four-step data analytical approach. First, after assessing response bias, EFA and multigroup CFA of market climate construct items were employed to validate the scale. Measures showed acceptable measurement properties across all three countries, including evidence for convergent and discriminant validity and measurement invariance. Second, we used Latent Class Analysis to identify empirical profiles for the market climate construct in the cross-national data. Four different, empirically derived market climate profiles were identified (n = 37 to 327): (1) Dark, with the lowest perceived market and innovation orientation, and powerless consumers, (2) Stormy, with low market orientation but somewhat powerful consumers, (3) Cloudy, an ambivalent climate with moderate profile, and (4) Sunny, the most favorable market climate. Third, we used a multiple group mean and covariance Structural Equation Modeling to estimate latent means and effect coefficients to test the anchoring and calibrating effects of market climates using a validated model of customer loyalty antecedents. Fourth, we controlled for category risk, demographics, country dummies, and common method bias.

Overall, our study provides evidence that market climate is a meaningful macro-level construct that sheds light on customers' shared schemas of market contexts, and its effects on micro-level exchange determinants of their behavioral loyalty.

Let's Get Emotional: The Strategic Influence of Discrete Positive and Negative Emotions on Consumer Behavior

Chair: Vldas Griskevicius, University of Minnesota

Symposium Overview

How do different feelings influence consumption? The answer to this question might initially appear simple: Decades of research have repeatedly stressed that the key to understanding how feelings influence judgment and choice lies in affective valence – whether one is feeling positive or negative. Yet recent research has begun to question such traditional valence-focused approaches. Instead, multiple theoretical perspectives suggest that there are likely to be important differences between how different negative and positive feelings influence consumption.

This symposium presents emerging research examining how both different positive and negative emotions influence consumer judgment and behavior. In contrast to traditional models, all four papers show that feelings of the same affective valence can have vastly different and even opposing consequences depending on the specific emotion that people are feeling. All four papers highlight that regardless of whether an emotion is positive or negative, different emotions influence behavior in a functional manner, whereby activating a specific emotion motivates thinking and action consistent with the underlying function of that emotion.

The first and second paper focus on an area that has been called a conspicuous lacuna in psychology and marketing: the influence of specific positive emotions on cognition and behavior. **Griskevicius, Shiota, and Nowlis** draw on an evolutionary approach to discrete emotions, which holds that different positive emotions function to solve different types of adaptive problems. Consistent with the idea that different emotions trigger emotion-specific adaptive motivations, they find that the positive states of pride and contentment lead people to desire vastly different types of products. For example, in line with the status display function of pride, this emotion enhanced the desirability of public differentiation products (e.g., new watches or clothing), but not products used in the privacy of one's home (e.g., beds or dishwashers).

Herzenstein and Gardner tested competing hypotheses regarding how two discrete positive emotions – joy and contentment – influence variety seeking. They find that while both emotions are equally pleasant, joy leads to significantly more variety seeking than contentment. Further evidence indicates that content individuals avoid variety because they use avoidance motivation to preserve their current state, whereas joyful individuals seek variety because they use approach motivation to enhance their experiences.

The third and fourth papers focus on how and why cognition and behavior are influenced by different negative emotions. For instance, previous work shows that negative feelings sometimes lead people to actively engage in mood-repair strategies, and yet other times lead people to inactivity and apathy. To reconcile these contradictory findings,

Raghunathan and Schaffner examined whether the motivation to engage in mood-repair – such as watching a cheerful movie – might be differentially influenced by different negative emotions. They find that sadness leads people to shun opportunities for mood-repair, whereas anxiety and anger motivate people to seek experiences to repair mood.

Additionally, they confirm that the motivation to engage in mood-repair is mediated by sad peoples' pessimism about the efficacy of hedonic activities to alleviate their negative mood.

Winterich, Morales, and Mittal focused on a specific negative emotion – disgust – by examining how the evaluation of disgusting products influences consumers' moral standards. They find that whereas previous research shows that disgust leads to *higher* moral standards *for others*, disgust can lead to *lower* moral standards for *one's own* actions. That is, instead of leading to higher condemnation, feeling disgusted may actually result in a license to sin.

This symposium brings into relief key practical and theoretical points. The clear practical insight is that specific emotions can be used by marketers as strategic tools. That is, instead of aiming to make consumers feel good or bad, marketers are well-served to elicit specific emotions in strategic ways. It also demonstrates that some products by their nature can trigger discrete emotions that impact behavior, and marketers need to be aware of these effects to effectively manage their product lines. In addition, this symposium highlights how multiple theoretical approaches can be used to better understand how and why specific emotions influence cognition and behavior. The intended audience for this session includes not only individuals interested in affect, emotion, motivation, persuasion, and cognition, but people interested in learning about diverse theoretical perspectives, such as evolutionary approaches to the consumer behavior.

All papers in this session include collected data from at least two studies and are in the advanced stages of completion. The chair will ensure that all of the papers are presented within the allowed time, while also facilitating audience questions and moderating brief discussions.

The Many Shades of Rose-Colored Glasses: An Evolutionary Approach to Positive Emotions

Vladas Griskevicius, University of Minnesota*

Michelle Shiota, Arizona State University

Stephen Nowlis, Arizona State University

Consider a shopper who is in a good mood. She might be feeling contented after a delicious meal or feeling proud after having accomplished an important goal. Given her positive affective state, how will she perceive the myriad products she encounters? The answer to this question might initially appear simple: Much research already shows that positive affect leads to affect-congruent evaluation (see Schwarz and Clore 2007; Cohen, Pham, and Andrade 2007). That is, a good mood dons consumers with rose-colored glasses, which enhance product attractiveness. But whereas traditional approaches examining the influences of affect on consumer behavior have usually linked product evaluation to affective valence, an evolutionary approach suggests that emotions of the same affective valence can have different consequences. We draw on an evolutionary framework of positive emotion (Keltner, Haidt, and Shiota 2006; Shiota 2008) to investigate how product evaluation might be influenced by two often-experienced positive emotions: pride and contentment. Pride is what we feel after a valued achievement, such as doing well on a difficult exam. This emotion is believed to function to facilitate social displays to increase one's social standing (Gilbert 2001; Tracy and Robins 2004). Considering that pride should motivate people to positively differentiate themselves, we predicted that pride should enhance attractiveness of products useful for public display and positive differentiation (e.g., a new watch, nice clothing). In contrast to traditional approaches, however, pride should not enhance the attractiveness of products that are antithetical for public positive differentiation (e.g., dishwashers, beds).

Contentment is the feeling of satiation and satisfaction after the fulfillment of a basic need, such as the feeling we have after eating a nice meal (Barenbaum 2002). Contentment prompts individuals to savor their current life circumstances and motivates them to be in a safe, comfortable, and familiar place (Fredrickson 1998). Thus, contentment should enhance the attractiveness of products such as beds or dishwashers, which are closely associated with a familiar and comfortable place—the home. But contentment should not enhance attractiveness for products are associated with public displays and effortful positive differentiation.

Across three experiments, we use different methods to elicit pride and contentment. Across the three studies, we find that pride and contentment lead to people to desire specifically those types of products that can further the adaptive goal triggered by each emotion. Specifically, pride led products useful for public display to be seen as more attractive. But pride did not lead products that are useful for getting things done around the house to be any more attractive than in a neutral control condition. Although these findings cannot be accounted by traditional affective-valence models, they are highly consistent with a functional perspective of discrete emotions.

For contentment, we find the reverse pattern from pride. Specifically, contentment led basic home products to be seen as more attractive. But contentment did not enhance the attractiveness of public display products. Again, although these findings are difficult to explain using traditional models, they make sense from a functional perspective of emotion. For instance, after eating a nice meal and feeling contented, people are likely to prefer to be at home, rather than put themselves on public display.

The third study finds that the findings are mediated by the specific adaptive motives that are triggered by pride and contentment. Overall, whereas traditional models predict that any positive state should lead to more positive evaluation, we find that positive affect may or may not enhance the attractiveness of products, depending on the specific positive emotion that a person is feeling and on the type of product being evaluated.

Joy and Contentment: A Motivational Perspective

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In this research we examine the effects of two positive emotions on the choice of motivation – approach vs. avoidance. Previous research has shown that positive emotions (i.e., happiness) facilitate approach behaviors, however, we ask: do all positive emotions lead to approach behaviors? If not, then why would some emotions lead to approach behavior while others lead to avoidance behavior? We address these questions using two positive emotions, joy and contentment. We chose these emotions because they are phenomenologically different while both positive, and they are easily and accurately manipulated and measured (Fredrickson 1998). Briefly described, joy is high arousal positive emotion that is usually experienced in safe and familiar contexts that require low effort (Ellsworth and Smith 1988). The playfulness, exploration, and willingness to take risks and try new things that are associated with experiencing joy, are also consistent with the approach system. Contentment, however, is a low arousal positive emotion that is usually experienced in safe and certain situations that require low effort (Ellsworth and Smith 1988). According to Frijda (1986) contentment is associated with inactivity and doing nothing, but Fredrickson (1998) suggests that it is associated with cognitive activity because it prompts individuals to savor their current life circumstances and recent successes. The feelings of tranquility, serenity, and savoring, which result from experiencing contentment, are consistent with the avoidance system. This is because individuals engage in mood preserving behavior – they avoid changing their current state by avoiding potentially undesirable or negative outcomes.

Experiments 1A and 1B investigate whether experiencing joy (contentment) leads to the use of approach (avoidance) motivation. According to Carver and White (1994) approach motivation is responsive to cues of reward and different levels of engagement in approach motivation lead to different affective responses to such cues. The affect most relevant to reward cues is happiness, the dependent variable in 1A. Avoidance motivation is responsive to cues of punishment and different levels of engagement in avoidance motivation lead to different affective responses to such cues. The affective response most relevant to punishment cues is nervousness, the dependent variable in 1B. Results confirm our predictions, that joy facilitates approach motivation and contentment facilitates avoidance motivation. While there has been evidence that avoidance or withdrawal yields relief, calmness, or contentment when goal progress exceeds criterion (Carver and Scheier 1998), we show the causality can also be reversed, namely contentment leads to the use of avoidance motivation, regardless of goal progress.

Our findings may also be consistent with the emotions' arousal level: joy is associated with more arousal than contentment, and thus might be associated with more cognitive and motor activity, consistent with approach behaviors. The next experiments refute this possibility.

Experiment 2 tests whether contentment leads to inactivity, a potential explanation for the use of avoidance motivation. A 2 (emotion: joy vs. contentment) × 2 (domain: gains vs. losses) experiment explores the prediction that when the appeal is right, content individuals are proactive and willing to take risks (similar to joyful individuals.) Using a gambling choice task we find that joyful (content) individuals are more risk seeking in the gain (loss) domain. Thus we cannot explain the result of experiment 1 by inactivity, but rather by mood-preserving behavior. This experiment cannot rule out that findings are due to differences in cognitive activity associated with each emotion. Although joyful and content individuals were both proactive (willing to take risks in the appropriate domain) they still might differ in cognitive flexibility or amount of processing (cf de Dreu et al. 2008). To investigate these issues, in experiment 3 we examine the effect of joy and contentment on cognitive activity and behavior change, using both negative (loss) and positive (gain) appeals.

Experiment 3 investigates whether joy and contentment lead to similar cognitive performance and changes in behavior, but only when the appeal fits the emotional state. We predict that joyful (content) individuals will be more persuaded to change their behavior following a gain- (loss-) framed appeal, and that the magnitude of change will be similar. We predict a loss (gain) frame will be more effective for participants experiencing contentment (joy), due to the use of avoidance (approach) motivation. Participants read an article about the benefits of flossing or the negative outcomes of not flossing, and received a package of individual flossers. We found a significant interaction of emotions × framing on article effectiveness (measured during the experiment) and actual behavior (# of times participants flossed in the week following

the experiment.) This indicates that content individuals processed at least as much as joyful individuals, otherwise, the former would be more convinced by the positively toned gain frame, rather than the negatively toned loss frame. To summarize, we show that while some positive emotions (joy) indeed facilitate approach behaviors as the literature suggests, others (contentment), lead to avoidance behaviors and enhanced risk taking in the loss domain and persuasion when exposed to negative (loss) framed materials. We further show predictions drawn from the cognitive flexibility perspective do not explain our findings because both emotions led to similar processing.

Carver, Charles S. and Michael F. Scheier (1998), *On the Self Regulation of Behavior*, New York, NY: Cambridge University Press.

Carver, Charles S. and Teri L. White (1994), "Behavioral Inhibition, Behavioral Activation, and Affective Responses to Impending Reward and Punishment: The BIS/BAS Scales," *Journal of Personality and Social Psychology*, 67, 2, 319-333.

Ellsworth, Phoebe. C, and Craig A Smith (1988), "Shades of joy: Patterns of appraisal differentiating pleasant emotions," *Cognition and Emotion*, 2, 301-331.

Fredrickson, Barbara L. (1998), "What Good Are Positive Emotions?," *Review of General Psychology*, 2 (September), 300-319.

Frijda, Nico H. (1986), *The Emotions*. Cambridge, England: Cambridge University Press.

Sadness, Apathy, and the Tendency to Shun Mood-Repair

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The tendency to engage in mood-repair is among the most pervasive motivational shifts observed under negative mood (e.g., Kacen 1994; Raghunathan and Trope 2002; see Morris and Reilly 1987). Although mood-repair theories appear to provide a concise and unequivocal summary of people's regulatory tendencies under negative mood—basically, that people choose activities that have potential for alleviating their negative mood—some evidence contradicts this prediction. This evidence indicates that negative moods make people lackadaisical, causing them to be uninterested in mood-repair. For example, negative moods can cause individuals to pass up activities (such as socializing) that to an unbiased observer would appear to be just the antidote they need (Lazarus and Folkman 1994; Raghunathan 1999). How can one reconcile these findings with the apparently contradictory ones obtained in the mood repair literature?

One answer is that, whereas the research on mood-repair has conflated the effects of several different negative moods, it is only sadness (and not other states) that engender a lack of interest in mood-repair. This prediction is based on well-established findings that sadness (such as depression) leads to inactivity and fatigue (Seligman 1975). A second possibility is that results from previous mood-repair studies are biased towards over-representing the extent to which mood-repair occurs. This is because these studies do not offer participants the option of doing nothing—typically, participants in these studies are forced to choose between two activities that differ in their hedonic potential (with no option of not choosing either of them).

To address these possibilities, we conducted an experiment in which participants were first put in one of four emotion states: angry, anxious, sad, or neutral (Gross and Levenson 1995). Then, all participants were given the opportunity to engage in mood-repair through watching humorous commercials while waiting for a subsequent part of the experiment to load up. Consistent with expectations, those in sad state were the least likely to watch the commercials (proportion = 64% vs. $P_{angry} = 88\%$; $P_{anxious} = 92\%$; $P_{happy} = 100\%$; all focal contrasts significant at $p < .01$). Further, among sad participants who did choose to watch the commercials, the time taken to choose this option was longer than that for individuals in the other conditions ($M_{Sad} = 11.23$ seconds; $M_{Others} = 8.43$ seconds, $t(97) = 13.33$, $p < .01$), suggesting that mood-repair was less attractive option for these participants.

In Study 2, we attempted to identify an underlying reason for this effect by investigating whether sad individuals are more pessimistic about the effectiveness of hedonically pleasing activities to repair mood (Johnson and Tversky 1983). Using the autobiographical memory technique (Lerner and Keltner 2001), participants were put in either a sad or a neutral state.

Then, participants saw information about the hedonic potential of a movie (“Autobiography of an American”). Half the participants in each affective state were lead to believe that this movie had high hedonic potential, while the other half was lead to believe that it had lower hedonic potential. Consistent with our theorizing, sad participants exhibited less interest in watching the movie portrayed as high in hedonic potential ($M = 6.48$) compared to neutral participants ($M = 7.32$; $t(47) = 1.90, p < .05$). Further, sad participants were equally (un)interested in the movie regardless of its portrayed hedonic potential ($M_{\text{high}} = 6.48$; $M_{\text{low}} = 6.54, t(57) < 1$), whereas participants in the neutral state were more interested in the movie when it was portrayed as being high in hedonic potential ($M_{\text{high}} = 7.32$; $M_{\text{low}} = 6.67$; $t(86) = 2.06, p < 0.05$).

These findings establish that sad people shun mood-repair (Study 1), and that this is mediated by pessimism about the efficacy of hedonic activities to repair mood (Study 2). A question that remains is whether *forcing* people to engage in a hedonic activity can repair sadness, which is the objective of proposed Study 3. Using a procedure similar to Study 1, sad participants in one condition (“free choice”) will given the option of watching a humorous video clip (or do nothing). In another condition (“forced choice”) sad participants will be required to watch the video. We expect that exposure to the video will result in mood repair, suggesting that it is better to force sad people to engage in mood repair.

I’m Already Dirty, Might As Well Cheat: The Impact of Disgusting Products on Consumers’ Moral Judgments

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Research has demonstrated that disgust can have a significant influence on consumer evaluations and behaviors (Lerner, Small, and Loewenstein 2004; Morales and Fitzsimons 2007; Zhong and Liljenquist 2006). Although research has tended to explore physical and moral disgust separately (Haidt 2003), research has begun to explore the associations and interplay of these two types of disgust. For instance, MRI scans have revealed overlapping brain areas for core and moral disgust (Moll et al. 2005) and both moral and visceral disgust can result in the same physiological reactions (Sherman, Haidt, and Coan 2008). Zhong and Liljenquist (2006) identified the “Macbeth Effect” that shows when individuals experience a threat to moral purity, they feel the need for physical cleansing. Similarly, Schnall et al. (2008) explored the effects of physical disgust on moral condemnation, finding that physical disgust increased moral condemnation of other people’s actions. However, they did not consider cases where people evaluated their *own* actions and behaviors.

In contrast, we propose that when consumers make moral judgments involving themselves, instead of leading to higher condemnation, feeling disgusted may actually result in a license to sin. Khan and Dhar (2006) found that individuals who completed a virtuous act felt the right to indulge. Similarly, Fitzsimons, Nunes, and Williams (2007) found that when consumers report behavioral intentions for vice behaviors for which they hold conflicting attitudes, it makes them more likely to engage in the behavior. Building on this literature, we argue that when consumers experience disgust (i.e., feel dirty) they evaluate immoral behaviors in which they have a choice to engage less negatively and consequently are more likely to engage in them.

In study 1, participants first evaluated either a disgusting (anti-diarrheal medicine) or a neutral (light bulb) product and reported feeling higher levels of disgust in the disgusting vs. the neutral condition ($M = 3.52$ vs. $1.48, p < .01$). Afterwards, in a separate study, participants read a report about college cheating and answered questions. Participants in the disgust condition evaluated cheating less negatively than those in the neutral condition ($M = 7.55$ vs. $8.23, p < .01$), and reported being more likely to cheat this semester ($M = 2.74$ vs. $2.28, p < .05$) and at some point during college ($M = 4.26$ vs. $3.50, p < .05$). After answering the cheating questions, participants reported their affective responses again. Interestingly, there was no difference across conditions ($M = 2.05$ vs. $2.03, NS$). These results suggest that even though physically disgusted participants reported a higher likelihood of cheating, they did not continue to feel disgusted but instead were “cleansed” after “sinning”—implying two wrongs can make a right.

Study 2 ($N = 45$) induced disgust through online product evaluations. Ps evaluated ten disgusting products or ten neutral products and reported higher levels of disgust in the disgusting versus the neutral condition ($M = 5.60$ vs. $1.41, p < .01$). Participants then read two scenarios. The immoral scenario stated that a clothing retailer was engaging in child labor practices and a consumer organization was preparing to boycott the retailer. Participants indicated their likelihood to

purchase products from such a retailer and to put their name on the petition, which were averaged to create a composite measure ($r = .44, p < .05$). Those in the disgust condition reported less negative responses to the retailer than those in the neutral condition ($M = 6.14$ vs. $7.24, p < .10$). The second scenario stated that participants were receiving a \$5 refund from a recent purchase and could choose to donate the \$5 to Habitat for Humanity rather than receiving the refund. Participants reported evaluations of donating to charities and their likelihood to donate the money ($r = .31, p < .05$). Those in the disgust condition reported less positive attitudes toward donations than those in the neutral condition ($M = 7.56$ vs. $8.58, p < .05$).

The results together indicate that rather than cleansing oneself through harsher moral judgments of others (Schnall et al. 2008), when people feel physically disgusted while making moral judgments about themselves, they feel licensed to sin with a lower personal, moral standard and are also less likely to engage in moral/altruistic acts. The findings have implications for the effects of physical and moral disgust on consumer's own judgments and behaviors. A third study evaluates the extent to which moral disgust may also trigger such effects.

Information Processing and Product Knowledge

Chair: Frederic Brunel, Boston University

"Credit or Cash?" The Effect of Credit Cards and Cash on Global Cognitive Focus

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Credit cards have become increasingly prevalent in the lives of consumers. The majority of previous research on credit cards and consumer behavior has shown that purchasing with a credit card increases spending in comparison to cash (e.g., Abramovitch, Freedman, & Pliner, 1991; Feinberg, 1986; Hirschman, 1979; Prelec & Simester, 2001). In our research, we do not focus on spending with credit cards versus cash, but, rather, we argue that interacting with credit cards – compared to cash – has significant psychological consequences beyond those involved in the purchase process. Specifically, we hypothesize that contact with credit cards should lead to more “global” cognitive processing and contact with cash should lead to more “local” cognitive processing. A local focus is one characterized by detail-oriented, specific, and exclusive thoughts. A global focus is characterized by schematic, broad, inclusive thoughts (see Kimchi, 1992, for a review of global and local processing styles). Importantly, we expect that this effect should not be limited strictly to purchasing processes, but should also be found more generally.

We hypothesize that contact with credit cards should lead to global cognitive focus because making purchases with credit cards temporally separates the consumer from actual payment. Consumers ostensibly project the true payment forward sometime into the future. It is possible that credit cards, therefore, set up “temporal distance” between the purchase and payment. Importantly, according to several theoretical models, degrees of distance cause situations, events, and objects to be mentally represented differently (e.g., Construal Level Theory, Trope & Liberman, 2003; Lewin, 1935; 1951).

Specifically, these models predict that distant stimuli are generally represented in global terms. Conversely, proximal stimuli are represented in local terms. If credit cards increase consumers’ notion of distance vis-à-vis cash, then interactions with credit cards should predict relatively more global, and less local, cognitive focus.

We test our hypothesis in three studies. In each study, cognitive focus (global versus local) was measured in a credit card or cash purchasing situation (Studies 1 and 2) or in a credit card or cash context that did not involve purchasing (Study 3). We also included a control condition for a baseline measurement of cognitive focus in each study. We did not have formal hypotheses regarding the control condition. We used the same analytic strategy in all three studies. Two planned contrasts were conducted for each of the dependent variables. The first was a predicted (one-tailed) contrast comparing the credit card and cash conditions. The second was an exploratory (two-tailed) contrast comparing the credit card and control conditions.

In Study 1, the inclusiveness of categories was used to measure global cognitive focus. Participants were prompted to think about purchasing clothing and furniture items with a credit card, cash or no payment-type specified (control). They were asked to determine whether strong (e.g., shirt and chair; Rosch, 1975) and weak (e.g., watch and telephone) exemplar items should be included as members of their respective categories (after Smith & Trope, 2006, Study 1). As predicted, participants in the credit card condition ($M = 2.28$, $SD = 1.67$) included significantly more weak items in their respective categories than participants in the cash condition ($M = .78$, $SD = 1.11$), $t(52) = 2.60$, $p = .011$ -tailed.

Participants in the credit card condition and those in the control condition ($M = 2.05$, $SD = 2.20$), however, included an equal number of weak items, $t(52) < 1$.

In Study 2, category inclusiveness was again used to measure global focus. In this study, however, participants created item groupings. They imagined going shopping for items to use on a camping trip and items needed for moving into a new apartment either with a credit card, cash, or no payment-mode specified (control). Then they organized the list of items into categories that they saw fit (following Liberman, Sagristano, & Trope, 2002, Study 1). As predicted, participants in the credit card condition ($M = 9.43$, $SD = 2.62$) placed the items into fewer, broader groups than those in the cash condition ($M = 12.08$, $SD = 2.66$), $t(37) = -2.37$, $p = .011$ -tailed. Those in the credit card condition also grouped the items in fewer categories than those in the control condition ($M = 11.77$, $SD = 3.37$), $t(37) = -2.10$, $p = .04$.

In Study 3, we examined whether the credit cards were associated with global focus outside of a purchase context. To do

this, we modified a global-local perceptual focus assessment developed by Kimchi and Palmer (1982). In our version, participants examined a target arrangement of credit cards (in the credit card condition), U.S. dollar bills (in the cash condition), or basic shapes (in the control condition). Then they were asked to identify which one of two comparison arrangements they found to be more similar to the target arrangement. One was a global arrangement that had the same overall shape as the target, but was composed of different credit cards, dollar bills, or shapes. The other was a local arrangement that had a different overall shape from the target, but was composed of the same credit cards, dollar bills, or shapes as the target. As predicted, participants in the credit card condition ($M = 3.85$, $SD = 2.03$) chose more global arrangements than participants in the cash condition ($M = 2.68$, $SD = 2.10$), $t(60) = 1.96$, $p = .031$ -tailed. Participants in the credit card condition and those in the control condition ($M = 4.05$, $SD = 1.63$), however, chose a similar number of global arrangements, $t(60) < 1$.

Taken together, three studies demonstrate that consumers employ different modes of basic cognitive processing when interacting with credit cards versus cash. When they have contact with credit cards, individuals exhibit a global focus, viewing stimuli in broad, inclusive ways; whereas, relatively speaking cash is associated with a more narrow, local, exclusive cognitive focus. Furthermore, evidence suggests this occurs in both purchasing contexts (Studies 1 and 2) and in situations in which consumers are simply exposed to credit cards versus cash (Study 3). Implications for credit card debt, consumer education programs, and retailers are discussed.

- Abramovitch, R., Freedman, J., & Pliner, P. (1991). Children and money: Getting an allowance, credit versus cash, and handling of money. *Journal of Economic Psychology*, 12, 27-42.
- Feinberg, R. A. (1986). Credit cards as spending facilitating stimuli: A conditioning interpretation. *Journal of Consumer Research*, 12, 384-356.
- Hirschman, E. C. (1979). Differences in consumer purchase behavior by credit card payment system. *Journal of Consumer Research*, 6, 58-66.
- Kimchi, R. (1992). Primacy of wholistic processing and global/local paradigm: A critical review. *Psychological Bulletin*, 112, 24-38.
- Kimchi, R., & Palmer, S. E. (1982). Form and texture in hierarchically constructed patterns. *Journal of Experimental Psychology: Human Perception and Performance*, 8, 521-535.
- Lewin, K. (1935). *A dynamic theory of personality*. New York: McGraw-Hill.
- Lewin, K. (1951). *Field theory in social science; selected theoretical papers*. D. Cartwright (Ed.). New York: Harper & Row.
- Liberman, N., Sagristano, M. D., & Trope, Y. (2002). The effect of temporal distance on level of mental construal. *Journal of Experimental Social Psychology*, 38, 523-534.
- Prelec, D., & D. Simester. (2001). Always leave home without it: A further investigation of the credit card effect on willingness-to-pay. *Marketing Letters*, 12, 5-12.
- Rosch, R.H. (1975). Cognitive reference points. *Cognitive Psychology*, 7, 532-47.
- Smith, P. K., & Trope, Y. (2006). You focus on the forest when you're in charge of the trees: Power priming and abstract information processing. *Journal of Personality and Social Psychology*, 90, 578-596.
- Trope, Y., & Liberman, N. (2003). Temporal construal. *Psychological Review*, 110, 403-421.

Top 10 or Top 9? The Influence of Category Floor Fluency on Consumer Preference

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Marketers routinely include claims about specific ranks or ordinal category membership in their advertising messages. I define ordinal categories as numerically bounded categories in which all members have a specific rank or position in the set. As an example, a car company may tout its inclusion in a trade magazine's ranked list of the top 10 vehicles in its class. Marketers face numerous decisions when determining exactly how to frame an ordinal claim. Suppose the automaker was ranked #7 by the trade magazine. First, the marketer must decide whether to communicate its exact rank ("#7") or simply highlight its membership in an ordinal category. But even if the automaker chooses to make an ordinal

category claim, it must select the appropriate category floor (the lowest possible rank implied by the marketing message). In this case, the automaker could conceivably choose any ordinal category floor higher than 7 (e.g. “top 7”, “top 8”, etc.). Depending on the domain, certain category floors (i.e. “top 10”) may be more fluent (familiar and typical) for consumers to process. The present research examines the inferences that consumers make when encountering information about a product’s category membership. I attempt to answer three related questions: (1) What inferences do consumers make about a product’s exact rank after receiving ordinal category information?, (2) How does the fluency of a category floor affect the inferences that consumers make?, and (3) How do the inferences that consumers make affect choices and product evaluations?

Grice’s (1975) seminal work on communication norms suggests that communicators rely heavily on conversational implicatures. This suggests that all “communicated information comes with a guarantee of relevance” (Sperber & Wilson, 1986). When encountering advertising claims, consumers make the implicature that the advertisement has been worded in the manner that is most instrumental to the advertiser’s self-serving goal of boosting sales. Therefore, I hypothesize the existence of a Category Floor Tendency, whereby people who estimate a product’s rank based on ordinal category membership information infer a rank close to the lower bound of the category. Although individuals encounter numerically bounded categories frequently in everyday life, certain category floors are more prevalent than others. The research of Dehaene & Mehler (1992), which involved surveying a wide range of print materials, concluded that numbers ending in the values 0 and 5 are consistently overrepresented in numeric information, which they partially attributed to the high cognitive accessibility of these “round” numbers. I suspect that the Category Floor Tendency will be more pronounced for disfluent categories as compared to fluent ones.

In Experiment 1, participants encountered advertising claims from a fictional toy store in London, Magique Toys. Participants were either informed that Magique had been ranked in the top 10 or in the top 9 among all London toy stores. Next, all participants were asked to estimate the exact rank of Magique in the ordinal category. I found evidence of the Category Floor Tendency and also showed that this tendency was more pronounced for participants in the disfluent category (Top 9) condition. The mean rank estimate, measured as distance from the category floor, was significantly greater for participants in the fluent category condition ($M=-4.5$) as compared to participants in the disfluent category condition ($M=-3.2$), $t(106) = 2.4$, $p < 0.02$. Only 6% (3 out of 54) of participants in the fluent condition estimated Magique’s rank to be exactly equal to the category floor (i.e. #10), whereas 31% (17 out of 54) of participants in the disfluent condition estimated Magique’s exact rank to be the category floor (i.e. #9); $\chi^2 = 6.94$, $DF = 1$, $p < 0.01$.

In Experiment 2, I demonstrated the impact of ordinal category fluency on choice. A total of 102 participants were asked to make a choice between two business schools, School A and School B. Participants were told that in a recent advertisement, School A had claimed to be one of the Top 9 business schools in the U.S. according to a study conducted by Business Week. Depending on condition, participants learned that School B had claimed to be either one of the Top 8, or one of the Top 10, business schools according to Business Week. The two schools were equated on all other dimensions. The normative prediction is that participants should select School B in the Top 8 condition and School A in the Top 10 condition based on objective superiority (e.g. a Top 8 school cannot be ranked #9). In accordance with normative theory, 94% of participants in the Top 8 condition (where both options were disfluent) chose School B (Top 8), the objectively superior option, over School A (Top 9). However, 47% of participants in the Top 10 condition chose School B (Top 10), the fluent but objectively inferior option, over School A (Top 9).

In Experiment 3, I showed that the asymmetric nature of the Category Floor Tendency was not limited to choices made in a joint evaluation mode. Using a between-subjects design, I found that participants evaluated a disfluent, but objectively superior, hotel less favorably than its fluent but objectively inferior counterpart. Unlike Experiment 2, I manipulated fluency rather than relying on naturally fluent or disfluent categories; despite these methodological modifications, the basic pattern of results across the two experiments was the same. In Experiments 2 and 3, I contend that the asymmetric Category Floor Tendency led fluent categories to be chosen or evaluated more favorably than disfluent categories.

In the first three experiments, participants were compelled to consider a product’s exact rank. In subsequent experiments (not reported here), I explore a second route which might also lead consumers to favor members of fluent but objectively inferior categories. Specifically, I find that disfluency prompts consideration of a product’s exact rank. Conversely, fluent categories are typically processed more quickly and favorably; in fact, consumers often do not appear to speculate on a

product's likely rank within a fluent ordinal category unless they are explicitly prompted to do so. Both mechanisms, asymmetric elaboration and the asymmetric Category Floor Tendency, bolster evaluations of members of fluent categories.

Dehaene, S., & Mehler, J. (1992). Cross-linguistic regularities in the frequency of number words. *Cognition*, 43(1), 1-29.

Grice, H. P. (1975). *Logic and Conversation*. In P. Cole & J. Morgan (Eds.), *Syntax and Semantics 3: Speech Acts*. New York: Academic Press.

Sperber, D., & Wilson, D. (1986). *Relevance: Communication and Cognition*. Oxford: Basil Blackwell.

Subjective Knowledge, Choice Set Size, and Consumer Choice

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Marketers have long been trying to determine how much choice to offer consumers. Evidence from consumer research as well as psychological research has shown that consumers prefer choice over no choice: when offered choice participants are more motivated to make a good decision and are more satisfied with the product. However, recent studies have indicated that too much choice can be motivating. In particular, it was shown that consumers who were offered over 20 options were less likely to purchase the product than consumers who were offered about 6 options (Iyengar & Lepper, 2000). In this paper we suggest that the impact of choice set size on choice is mediated by consumer knowledge. We present evidence that when consumers are knowledgeable about a product they are more likely to purchase it with small choice sets, because too much choice becomes a burden. In contrast, when consumers are ignorant about a product they are more likely to purchase it with large choice sets, possibly because it increases the chances of running into a familiar product and enhances learning about the product.

In the first study participants were presented with a list of 5 or 25 red wines. They were asked to choose their favorite bottle and to indicate whether they would prefer receiving the chosen bottle or an equivalent amount of \$20. Half of the participants were presented with a list of Chilean wines (ignorance group) and half were presented with a mixed list of wines (control group). A manipulation check verified that participants knew less about Chilean wines than about the mixed list of wines. Replicating previous results, we found that in the control group, the proportion of participants who preferred the wine over the \$ amount was higher among those who were presented with a small choice set (5 wines) than a large choice set (25 wines). An opposite pattern was revealed among participants who were presented with Chilean wines: the proportion of participants who preferred the wine over the \$ amount was lower among those who were presented with a small choice set (5 wines) than a large choice set (25 wines).

The results of study 1 indicated that when determining the optimal choice set size marketers should estimate how knowledgeable consumers are with the product. This finding is in line with previous research suggesting that consumer choice is widely influenced by the extent to which consumers are knowledgeable about products and brands. Previous research has shown that consumers who are more familiar with products and have more extensive experience with it exert less effort on consumer decision making and product usage, they find it easier to differentiate between products in the same product class, to separate task-relevant from task-irrelevant information, and are more likely to remember details about the product (e.g., Alba & Hutchinson, 1987). Driven by such findings, firms spend large amounts of money on advertising and on consumer education programs.

In study 2 we wished to replicate the findings of study 1 using manipulations of subjective knowledge, the feeling of how knowledgeable one is (holding actual knowledge constant), rather than objective knowledge. Showing that subjective knowledge affects choice similarly to objective knowledge would suggest that marketers should not invest in advertising and education programs, but may rather employ relatively cheap and simple manipulations of subjective knowledge.

In study 2 we manipulated subjective knowledge by presenting a comparison group which was perceived as more knowledgeable. Participants were asked to choose their favorite video game from a list of either 5 or 25 video games. Then, they were asked to indicate whether they would prefer \$5 or the chosen game. Participants in the subjective ignorance condition were informed that the survey is administered among undergraduate students (like themselves) as

well as computer programmers. We found that participants in the control were more likely to prefer the video game over the cash when presented with 5 rather than 25 games; participants in the subjective ignorance condition revealed the reversed pattern: they were more likely to prefer the video game over the cash when presented with 25 games. In addition, we found that, when asked to rate their knowledge about video game, participants in the subjective ignorance condition indicated that they know less about video games than participants in the control condition.

A third study examined the impact of subjective ignorance as well as subjective competence on consumer choice. Participants were asked to choose their favorite body lotion from a list of either 5 or 25 lotions. Then, they were asked to indicate whether they would prefer \$5 or the chosen body lotion. Participants in the subjective ignorance condition were informed that the survey is administered among undergraduate students (like themselves) as well as dermatologists; participants in the subjective ignorance condition were informed that the survey is administered among undergraduate students as well as elementary school students. The results showed that participants in the control were more likely to prefer the body lotion over the cash when presented with 5 rather than 25 games; participants in the subjective competence condition revealed a similar yet stronger pattern; participants in the ignorance condition revealed the reversed pattern: they were more likely to prefer the video game over the cash when presented with 25 games. Moreover, the likelihood of preferring the product over the cash amount was mediated by self-reports of subjective knowledge. We further found that subjective knowledge was positively correlated with confidence in the choice, interest in the product, and predicted satisfaction with the product.

We conclude that choice set size consideration should include an estimation of consumer knowledge and that marketers should consider influencing consumer choice by manipulating subjective, rather than objective knowledge, when possible, as subjective knowledge is easier, faster, and cheaper to influence.

Consumer Responses to Entertaining Stimuli

Chair: Pragma Mathur, City University of New York

Being Transported Into the Novel World of Product Placement

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People willingly expose themselves to fictional information all the time, in the form of movies, books, television shows, and so on. Whereas most research in persuasion has focused on overt attempts to persuade individuals, only a handful of studies have investigated the influence of fictional content. A consistent finding of this research is that information in fiction can change people's beliefs about real-world facts (Green & Brock 2000). However, knowledge of the processes underlying these changes – and consequently the power to predict and control fiction's persuasive effects – is in its infancy.

One extension of this line of work to marketing is in the area of product placement (e.g., Russell 2002). While the practice of product placement in the television and movies industries has been the focus most research (see Karrh 1998 for a review), product placement has recently infiltrated the literary novel. For example, Fay Weldon, a British novelist was paid an undisclosed amount in return for giving the international jeweler Bulgari a prominent place in her novel. The primary goal of this research is to develop a deeper understanding of the impact of product placement on readers to better inform the marketers' efforts and the public policy debate surrounding this issue. The experiments reported in this paper investigate the influence of brands placed in fictional short stories and in particular, this research (a) tests whether enjoyment of fiction changes the influence of embedded brands, (b) identifies the underlying processes such as reduced counterarguing, and (c) explores strategies that may reduce any unwanted influences of product placement in fiction. One of the most important aspects of story reading shown to affect the persuasiveness of a story on real-world beliefs is the reader's engagement or transportation into the narrative world (Green et al. 2002). Although one advantage of product placement is the addition of realism to a program or story, there exists the possibility that the placement of brands in nontraditional media such as short stories may have negative effects due to increasing commercialization. In the first study we examine (1) whether product placement in fictional stories influences the reader's enjoyment of the story, and (2) investigate the impact of transportation on reader memory for brands placed in the story. In experiment 1 we employ a 2 (transportation: high vs. low) X 2 (product placement: present vs. absent) design¹. After reading the assigned short story, participants completed various measures including the transportation scale (Green & Brock 2000) and were asked to recall the names of all brands present in the story. Ninety nine participants read a short story with various brand names placed in the story and 101 participants read one of the stories with all brand names removed. Results revealed no differences between the two conditions – participants were equally transported in both conditions – thus product placement in a fictional story does not interfere with the reader's enjoyment of the story. To investigate the impact of transportation on recall, a median split was performed on the transportation scale and participants were categorized as either high or low in transportation. For participants in the product placement condition, participants' brand recall was recoded as either correct or incorrect. We find that participants who are highly transported into the narrative world of the story are significantly more likely to correctly recall the placed brands.

Many promotional campaigns intend to influence consumer attitudes as a precursor to the purchase decision. In experiment 2 we investigate the influence of transportation on readers' attitudes towards brands placed in stories. In this study we also explore the process that underlies the effect of transportation on brand attitudes. The feeling of being highly transported in a story has been shown to reduce the likelihood that the reader will critically evaluate information in the story (Green & Brock 2000). Drawing on this framework, we suggest that readers of fiction may be similarly influenced by brands placed in the story since counterarguing the appearance of the brand could jeopardize their experience of

¹ In both experiments participants were randomly assigned to one of two different short stories that were comparable in length and writing style. We found no effects found for the counterbalancing condition and therefore, all analyses were collapsed across this condition.

enjoying the story. In addition, a key tenet of product placement is that unlike traditional advertising, product placement may be considered more credible because the communicator's true motivation is not known. In this experiment we examine whether readers have more positive attitudes towards placed brands when the commercial motive of the placement is hidden. To test this premise we included a condition where participants were explicitly warned about the product placement and examine the effect of sponsor identification on brand attitude.

In experiment 2 we used a 2 (transportation: high vs. low) X 3 (product placement: present vs. absent vs. warned of sponsorship) design. To better understand the process that underlies the influence of product placement we included a measure of the extent to which the participants thought about the story while reading it versus relying on their emotional reactions (Chaudhuri & Buck 1995). The results revealed that compared to the product placement absent condition, the inclusion of product placement significantly increased brand attitude. However, warning participants that the story was sponsored by a company had a significant negative impact on brand attitude. Our processing style measure suggests that participants in the warning condition were more critical thinking and less likely to rely on emotional reactions to the story. A mediation analysis revealed that less critical thinking in the product placement only condition permitted greater transportation which led to more positive brand attitudes.

Given the increasing variety and frequency of product placements in nontraditional media, the findings from this study are of great importance from both a theoretical and public policy standpoint. For example, greater immersion in the plot means that readers may be more susceptible to the effects of product placement that they wouldn't be if faced with a more explicit attempt to persuade them (as in a standard advertisement). However, warning readers of the commercial sponsorship of the story appears to be a successful strategy for countering these effects. Understanding the conditions under which information placed in fictional sources can influence readers is important when the information may be inaccurate or misleading. In addition, there are numerous areas for future research. For instance, the relative strength of attitudes changed by fiction versus factual messages remains an open question (Green & Brock 2000). One possibility is that if individuals do not discount fictional information at the time of reading, the resulting attitudes may be as strong as those formed by a message labeled as nonfiction. On the other hand, it is possible that individuals may be less confident of beliefs formed by reading a message from a fictional source.

Chaudhuri, Arjun and Ross Buck (1995), "Media Differences in Rational and Emotional Responses to Advertising," *Journal of Broadcasting and Electronic Media*, 39, 109-125.

Green, Melanie C. and Timothy C. Brock (2000), "The Role of Transportation in the Persuasiveness of Public Narratives," *Journal of Personality and Social Psychology*, 79 (5), 701-721.

Green, Melanie C., J.J. Strange and Timothy C. Brock (Eds.) (2002), *Narrative impact: Social and cognitive functions*, Mahwah, NJ: Lawrence Erlbaum Associates.

Karrh, James A. (1998), "Brand placement: A review," *Journal of Current Issues and Research in Advertising*, 20(2), 31-49.

Russell, Cristel A. (2002) "Investigating The Effectiveness Of Product Placements In Television Shows: The Role Of Modality And Plot Connection Congruence On Brand Memory And Attitude," *Journal of Consumer Research*, 29 (3), 306-318.

On the Enjoyment of Suspense

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Inherent in many forms of entertainment is the experience of suspense. Previous research has focused on the tactical use of suspense in advertising (see Alwitt, 2002; see Hefzallah & Maloney, 1979 for a review) rather than on its enjoyment. Sporting events provide an ideal context for studying suspense. Competitive races are especially compelling because they feature a shorter narrative arc than other forms of suspenseful entertainment. Regardless of the context, the principles that

underlie suspense involve consumers' appraisals of how unfolding events in the narrative threaten a liked character. We argue that suspense is a process driven phenomenon in which heightened levels of excitement associated with the empathic distress for a liked character are transferred to feelings of relief once a favorable outcome is achieved which, in turn, intensifies the subsequent enjoyment derived from the experience (Zillmann, 1971, 1996). This conceptualization implicates the critical role of relief, which is expected to mediate how different levels of suspense following a desirable outcome affect retrospective enjoyment.

Using Zillmann's (1971, 1996) theory of excitation transfer we developed and tested five hypotheses. We anticipate that a highly suspenseful race will be more enjoyable to watch than a low suspense race (H1) and that high suspense races will generate greater levels of (H2a) relief following a win, and (H2b) disappointment following a loss than low suspense races. The third hypothesis proposes that the influence of suspense on relief will be greater following high suspense wins compared to low suspense wins. No such effect is expected for disappointment. In the fourth hypothesis we expect that the positive direct effect of relief on enjoyment following a win will be greater following races high in suspense than those low in suspense. Finally, we expect the mediation of the direct effect of suspense on enjoyment by relief to be greater following a high suspense win than a low suspense win. This latter effect contradicts recent research by Andrade and Cohen (2007) which has called into question the role of relief in contributing to consumers' enjoyment of aversive stimuli. In study 1, we rely on observations from 28 different races across four different sports and consider both moment-to-moment (MTM) suspense reaction and the following retrospective evaluations of the experience: suspense, relief, disappointment and enjoyment. As proposed in H1, races classified as high suspense were more enjoyable than low suspense races ($M_s = 4.83, 4.11$), $F(1, 149) = 181.98, p < .001, \eta_p^2 = .55$. Consistent with H2a, greater relief was felt following a high suspense win than a low suspense win ($M_s = 4.13, 3.07$), $F(1, 149) = 109.83, p < .001, \eta_p^2 = .42$. Also, as predicted in H2b, a high suspense loss produced greater disappointment than a low suspense loss ($M_s = 3.43, 2.92$), $F(1, 149) = 24.73, p < .001, \eta_p^2 = .14$. In support of H3 and H4, the results indicate that compared to the other groups, direct effects in the high suspense win group were significantly greater from MTM suspense to relief and from relief to enjoyment. In addition, consistent with the H5, the indirect effect of MTM suspense on enjoyment through relief for the high suspense win group was also significant (Sobel's $z = 3.62, p < .001$) and the effect was substantially greater in this group than in any of the other groups. These results suggest that relief does in fact mediate how the intensity of MTM suspense at the end of an episode affects enjoyment following a high suspense win.

Rather than actual races with human athletes, simulated races were used in study 2 to address shortcomings and replicate results. Consistent with our first hypothesis, the results indicate that races high in suspense elicited greater enjoyment ($M = 5.17$) than did those in low suspense ($M = 3.61$). Consistent with H2a, significantly greater relief was felt following a high suspense win by a preferred competitor than a low suspense win ($M_s = 5.83, 4.26, p < .001$). Also, as suggested in H2b, for those in the preferred competitor condition, greater disappointment was felt after a high suspense loss than a low suspense loss ($M_s = 5.79, 5.41, p = .044$). No other effects were observed ($ps > .25$). The results suggest that relief does mediate the direct effect of suspense on enjoyment for those watching races that involve a preferred competitor, supporting H3, H4, and H5.

Despite calls dating back to Hirschman and Holbrook (1982) to consider measures of emotional arousal during acts of hedonic consumption, we could find no work that has systematically investigated how consumers' MTM affective reactions are integrated into retrospective summary evaluations (study1) or how affective dispositions moderate those judgments (study 2). In our research, we focused on suspenseful entertainment. Our results indicate that suspense relies on an intertwining of cognitive and affective responses that transpire in real time. However, it is consumers' affective dispositions toward a preferred character that creates the emotional response characterized in Zillmann's (1996) excitation transfer theory. Unlike Andrade and Cohen (2007), our results implicate a process driven phenomenon in which relief plays a critical role in predicting enjoyment. In both studies, relief mediated the effect of suspense intensity on enjoyment. In contrast, no such effects were observed for disappointment.

This paper addresses a consumer behavior topic that has received scant attention over the years. Rather than viewing topics such as leisure and entertainment as being frivolous or superfluous, we argue that it is these activities that most often define people's lives. People find great pleasure in their entertainment choices and invest substantial resources in pursuit of these activities. Consumers increasingly seek out entertainment options that absorb them mentally and

emotionally. Suspense reflects a melding of cognitive and affective elements that creates an entertainment experience that is both engaging and memorable. Understanding the process by which consumers derive enjoyment is, in our opinion, an area that offers great research potential in the future.

- Alwitt, L.F. (2002). Suspense and advertising responses. *Journal of Consumer Psychology*, 12 (January), 35-49.
- Andrade, E.B., & Cohen, J.B. (2007). On the consumption of negative feelings. *Journal of Consumer Research*, 34 (October), 283-300.
- Hefzallah, I.M., & Maloney, P.W. (1979). Are there only six kinds of TV commercials? *Journal of Advertising Research*, 19 (August), 57-62.
- Hirschman, E.C., & Holbrook, M.B. (1982). Hedonic consumption: Emerging concepts, methods and propositions. *Journal of Marketing*, 46 (Summer), 92-101.
- Zillmann, D. (1971). Excitation transfer in communication-mediated aggressive behavior. *Journal of Experimental Social Psychology*, 7 (July), 419-34.
- Zillmann, D. (1996). The psychology of suspense in dramatic exposition. In P. Vorderer, H.J. Wulff, & M. Friedrichsen (Eds.) *Suspense: Conceptualizations, Theoretical Analyses, and Empirical Explorations* (pp. 199-231). Mahwah, NJ: Lawrence Erlbaum Associates.

When Does an Entertaining Virtual Experience Sell? Effects of Webgame Advertising on Attitudes

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Research on interactive media (e.g., electronic agents, Internet ads) has primarily focused on their utilitarian value. However, such a research paradigm may fail to explain consumer behavior when consumers are mainly looking for a hedonic experience, as opposed to a utilitarian benefit such as product information. We examine consumer reaction to ads with a different hedonic value. Specifically, we test when and how consumers' perceived entertainment value of an ad impacts their attitudes.

Prior research on attitude has shown that an individual's attitude can be constructed based upon two alternative sources: external information and direct experience with the attitude object. According to accessibility model (e.g., Feldman & Lynch, 1988), the dominant use of one over the other source can be determined by accessibility to a goal. If consumers are looking for product information (an entertaining experience), their attitudes are likely to be impacted by external information (a direct experience) that is salient. Similarly, as shown in dual processing persuasion theories, more favorable brand attitudes are likely to be formed (1) when "information seekers" find relevant information based upon deliberate processing and (2) when "entertainment seekers" who are not motivated to search any information have a recreational experience. Unlike information seekers, entertainment seekers can rely upon their attitude toward the ad in forming their brand attitudes ("affect transfer", e.g., Schlosser, 2003).

Building on these two theoretical frameworks, we hypothesize that entertainment seekers will be more likely to form favorable brand attitudes (Ab) if their perceived entertainment value (PEV) associated with an ad increases (H1). Attitudes toward the ad (Aad) are expected to mediate the relationship. In contrast, information seekers will be more likely to form favorable brand attitudes if they fulfill their goals to find product information, regardless of their perceived entertainment value of an ad (H2). In this case, attitudes toward the ad are not expected to mediate the relationship. To test these predictions, we ran a study (N=247) with a 3 (perceived entertainment value: High vs. Medium vs. Low) x 2 (goal: information seeking vs. entertainment seeking) between-subjects design. We manipulated perceived entertainment value by using three ad types that generated different entertaining experiences. The participants in the high, medium, and low entertainment value conditions were presented with a game ad, TV ad, and banner ad, respectively. Goal was varied by presenting the participants with a different instruction.

Upon arrival, the participants were randomly assigned to one of six conditions, and were instructed to either play a web game, watch a popular TV program, or browse a website for 10 minutes, depending upon their PEV condition.

Additionally, only those in the information seeking condition were further instructed to imagine that they would need to buy a new laundry detergent for their laundry work to prepare themselves to attend an important party, and were told that they would be asked to evaluate the ads and the advertised brands later. Our target ad, Tide laundry detergent ad, and filler ads were imbedded in each of the corresponding media. After spending 10 minutes for each activity, the participants were given questionnaires that included measures of interest. Aad and Ab were measured by a 7-point semantic differential scale with four items: unpleasant/pleasant, unlikable/likable, boring/interesting, and bad/good. PEV was measured by a 7-point Likert-type scale with seven items (e.g., "I thought it was clever and entertaining").

Our manipulations were successful. First, the overall effects of the PEV manipulation were significant and post-hoc tests confirmed the differences among three ad conditions. The trend analysis also showed that the PEV effect could be explained through a positive linear relationship. Second, consumers found an advertised message more important when their information search goal was accessible, rather than inaccessible.

As hypothesized, we observed a significant interaction between the PEV and goal on Ab. Consistent with H1, Ab increased with an increase in the PEV when the participants looked for a recreational experience. Next, we tested if Aad mediated the influence of the PEV on Ab. As expected, the PEV was a predictor of Aad and Ab. Aad had a significant impact on Ab. When Aad was controlled for, the direct effect of the PEV on Ab dropped, indicating a partial mediation effect of the Aad. Consistent with H2, Ab did not change when the information search goal was accessible. Aad also did not serve as a mediator. Moreover, we found a main effect of the PEV on Ab. The participants exhibited higher Ab with an increase in the PEV.

In sum, our results indicate that perceived entertainment value plays a key role in creating favorable Ab. Particularly, when consumers are looking for an entertaining experience, their Ab is formed based upon their Aad that is influenced by the PEV. When they are looking for product information, their Ab is not influenced by Aad or PEV of the ad. Ensuing discussions about the findings and implications conclude this paper.

Feldman, J. & Lynch, J. G., Jr. (1988). Self-generated validity and other effects of measurement on belief, attitude, intention and behavior. *Journal of Applied Psychology*, 73, 421-435.

Schlosser, A. E. (2003). Experiencing products in the virtual world: The role of goal and imagery in influencing attitudes versus purchase intentions. *Journal of Consumer Research*, 30, 184-198.

Testing the Boundaries of Managerial Conventional Wisdom: The Impact of Dual-Process Judgments on Consumer Evaluations

Chair: Ryan Hamilton, Emory University

Discussion Leader: Jeffrey Shulman, University of Washington, Seattle

Symposium Overview

The conventional wisdom surrounding consumer evaluations is often based on simple rules about the way consumers process information. For example, when consumers evaluate brand extensions, fit between the parent and the extension has been shown to matter more than the quality of the parent brand. Thus, when making decisions about how to extend a brand, managers might be tempted to place a great deal of weight on questions of fit, while downplaying the importance of other potentially relevant factors. Similar bits of conventional wisdom predict how consumers evaluate a price and how they evaluate the overall price image of a retailer.

This symposium seeks to examine boundaries on some of this conventional wisdom by investigating how dual-process judgments play a major role in moderating widely accepted theories of consumer behavior. All three of the papers in this symposium show that findings from previous research may rely, to some extent, on the assumption that single processes drive consumers' judgments. When additional judgment processes are activated, however, the limitations of accepted theories are revealed.

In the first paper, Meyvis, Goldsmith and Dhar examine whether perceived fit is indeed more important than perceived quality in consumers' evaluations of brand extensions. They propose that the relative importance of these two factors is a function of whether the judgment process is based on an abstract, managerial perspective or on a concrete, shopper's perspective.

In the second paper, Hamilton and Chernev question the intuitive prediction that adding a less expensive item to a retailer's assortment will lower its price image. They argue that, contrary to the conventional wisdom, the impact of vertical extensions on price image depends on whether judgments are motivated by a browsing goal or a buying goal. They find that adding low-priced items can actually make a store seem more expensive and adding high-priced items can make a store seem less expensive.

In the third paper, Cunha and Shulman examine the prevailing understanding that the range and frequency of prices in an assortment have a greater influence on consumers' price perceptions than the average assortment price. They propose that the way consumers represent the relevant product category can influence whether consumers judge prices relative to the range and frequency or relative to the mean of the price distribution.

Taken together, the papers in this proposed symposium extend current theory by providing a richer understanding of the judgment processes that underlie consumer evaluations. By establishing limitations on the predictions of conventional wisdom, this research suggests marketing practitioners should revisit some common marketing strategies. After the presentation of the research papers, the session chairs will lead a discussion that will integrate findings and address the issues raised by these papers.

Beyond Survival of the Fittest: The Influence of Mindsets on Consumers' Response to Brand Extensions

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Kelly Goldsmith, Yale University*

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Treating their brands as assets, many businesses have attempted to leverage their brand equity by using established brand names to launch new products as brand extensions. Previous research on brand extensions has identified the fit between the brand and the extension as an important determinant of a positive consumer response to the new extensions.

Regardless of how it has been conceptualized, be it as overlapping category associations, compatible skills (Aaker and Keller 1990), or overlapping benefit associations (Broniarczyk and Alba, 1994), researchers have argued that a good fit between the brand and the extension category is a necessary condition for favorable consumer reactions. However, some recent work (Klink and Smith 2001) suggests that the impoverished presentation of extension information in past brand

extension research has lead to an overestimation of the importance of fit.

In the current research, we propose that the relative importance of fit will depend on the mindset that the decision maker adopts. In most brand extension studies, participants are asked to provide separate evaluations of hypothetical extensions. We argue that this encourages participants to adopt an abstract, hypothetical mindset as opposed to a more concrete, pragmatic mindset. As research on psychological distance (e.g., Liberman, Trope, & Stephan 2005) has suggested, decision makers who adopt a more hypothetical mindset are more likely to be guided by abstract principles. We therefore propose that participants who are asked to evaluate hypothetical extensions will rely on their lay beliefs and their general principles about how the marketplace should be structured, rather than concrete quality concerns that would drive their actual purchase decisions. In other words, those participants may adopt a more abstract perspective and overstate their sensitivity to the fit between the brand and the extension. Conversely, shifting people's perspective from an abstract to a more concrete mindset should reduce the impact of general principles such as fit and increase the impact of factors that promise concrete rewards, such as brand quality.

Consistent with this proposition, results from five experiments indicate that when the decision context is made more concrete, people's preferences shift from extensions of high fit, low quality brands to extensions of low fit, high quality brands. In a first study, participants were presented with hypothetical extensions to the same product category of a high fit, low quality brand (e.g., ShopRite cottage cheese) and a low fit, high quality brand (e.g., Haagen Dazs cottage cheese). In the separate evaluation condition, participants were asked to separately evaluate each extension (every participant rated both ShopRite and Haagen Dazs, but they were separated by other products); in the joint evaluation condition, participants also evaluated each extension, but the two extensions to the same category were presented adjacently; and in the choice condition, participants chose between the two brand extensions in each category. Consistent with previous findings in the literature, participants in the separate evaluation condition rated the high fit (low quality) extensions more favorably than the low fit (high quality) extensions. However, when participants made choices between extensions in the same category, or when they jointly evaluated these extensions, they preferred the low fit (high quality) extensions instead. We propose that the comparisons between brands in the same category resulted in more concrete product representations (and increased similarity to regular purchase behavior) and reduced reliance on abstract principles such as fit, in favor of the immediate benefits associated with brand quality. The reduced reliance on fit was supported by results from a second study that replicated the separate evaluation and choice conditions, but also asked participants to list the thoughts they relied on for their decision. As expected, people in the separate evaluation condition were significantly more likely to mention fit-related thoughts than were people in the choice condition.

To further test the effect of inducing a more concrete mindset, we conducted a third study in which all participants made a choice between a high fit, low quality extension (e.g., CVS deodorant) and a low fit, high quality extension (e.g., Nike deodorant). For half the participants, we increased the ease of imagining the extensions by providing a picture of the product. The picture showed a typical product in that category and was identical for both extensions. Even though the picture did not convey any additional information, providing the picture significantly increased participants' preference for the low fit, high quality extension. A fourth study replicated this effect and also asked participants to list their thoughts when choosing between the extensions. As expected, participants who had been provided with pictures were significantly more likely to mention quality-related thoughts (very few participants mentioned fit-related thoughts in either condition). Finally, in a fifth study, participants were again asked to choose between the same extensions as in studies 3 and 4, but no pictures were shown. Instead, for half the participants, the choice context was made more concrete by asking them to think about the extensions before making a choice. Similar to the picture effect, thinking about the extensions before choosing increased the preference for the low fit, high quality brand. Together, these last three studies indicate that as the decision context becomes more concrete (by making the extensions easier to imagine), the benefits offered by high-quality brands become more persuasive, and violations of general principles become less problematic.

These findings illustrate the malleability of consumers' evaluative response to brand extensions and provide further support for Klink and Smith's (2001) contention that previous brand extension research has overstated the importance of fit. However, this work also highlights a concern in consumer research in general, and in branding research in particular. When asking people how they would decide in hypothetical situations, we implicitly encourage them to adopt an abstract, hypothetical mindset that may increase their reliance on abstract principles and lay theories. This is of particular

importance to researchers who study consumers' reactions to changes in brand strategies, as they are at risk of measuring consumers' lay beliefs about the decisions that managers ought to make rather than how they would react as consumers in the marketplace. To reduce this risk, researchers can encourage participants to adopt the concrete mindset that is common in typical purchase situations by facilitating the concrete representation of the choice options.

The Moderating Role of Browsing and Buying Goals in Consumers' Formation of Retailer Price Images

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Vertical product line extensions, both upscale and downscale, are a common strategy used by retailers. For example, Best Buy recently added the upscale Magnolia home theater line to complement its lower priced electronics offerings. Similarly, JC Penny has added the high-end Sephora brand, priced much higher than the rest of its cosmetics line. Even Wal-Mart has experimented with adding a few upscale items to its assortments. Downscale extensions are even more common, with many retailers extending their product lines with low-priced offerings, often in the form of private labels. The conventional wisdom suggests that vertical extensions have a directionally consistent impact on price image, such that upscale extensions increase price image and downscale extensions decrease price image. Many retailer strategies for managing price image are based on this assumption (A. T. Kearney 2005). For example, Whole Foods has begun promoting low priced vertical extensions as a part of a strategy to lower its price image, and in the United Kingdom, Burger King recently introduced a £85 (\$170) Kobe beef and foie gras hamburger in an effort to create a more upscale image.

In this research, we argue that, contrary to the conventional wisdom, vertical extensions can have the opposite effect on price image, such that upscale extensions can decrease, rather than increase price image and vice versa for downscale extensions. We propose that the impact of vertical extensions on price image is a function of consumer goals and, in particular, whether consumers have the intent of browsing or buying.

Consumers with a browsing goal are interested in gathering information for possible future use, but not for the immediate purpose of picking one option to put into their shopping basket (Claxton, Fry, and Portis 1974; Putsis and Srinivasan 1994; Urbany, Dickson, and Wilkie 1989). Browsing often involves a judgment procedure, in which the objective is to construct an overall assessment of an alternative or set of alternatives (Johnson and Russo 1984; Slovic 1975; Tversky, Sattath, and Slovic 1988). In contrast, consumers with a buying goal seek information for use in an immediate purchase decision. A buying goal typically culminates in a choice: selecting one alternative from a consideration set (Bettman, Luce, and Payne 1998; Johnson and Russo 1984).

Browsing and buying goals are likely to lead to differences in consumers' breadth of focus when evaluating price information. Browsing often entails allocating attention across many options, rather than focusing on any one option in particular (Moe 2003; Putsis and Srinivasan 1994; Urbany, Dickson, and Wilkie 1989). In contrast, a buying goal tends to lead to a narrow allocation of attention, ultimately focusing consumers on the to-be-purchased alternative (Carmon, Wertenbroch, and Zeelenberg 2003; Moe 2003; Putsis and Srinivasan 1994).

We argue that when consumers have a browsing goal, adding an extension is likely to shift the overall price image in a direction consistent with the extension type: An upscale extension will tend to increase the overall price image, whereas a downscale extension will decrease it. When consumers have a buying goal, on the other hand, they tend to contrast the price of the to-be-purchased item with the other prices in the consideration set. As a result of this contrast effect, upscale extensions can actually decrease price image and downscale extensions can increase it. These predictions are tested in a series of three empirical studies that offer converging evidence in support of the proposed theory.

In the first experiment, participants are encouraged to activate either a browsing goal—by simply considering the options available—or a buying goal—by choosing one of the available options—when viewing of a set of options that includes either an upscale or a downscale extension. Consistent with predictions, we found that when consumers had a browsing goal, they formed a higher price image of a store with upscale extensions. When they had a buying goal, however, they formed a higher price image of a store with upscale extensions.

The second experiment investigates consumers' breadth of focus as the proposed mechanism for the effect demonstrated

in the first experiment. In particular, we use a perceptual manipulation of participants' breadth of focus by either making all of the options in a store of a similar size (broad focus) or by highlighting one option, making it much larger than the other options (narrow focus). We replicate the previous results when participants have a broad focus, a store with upscale extensions is perceived to have a higher price image than a store with downscale extensions, but when participants have a narrow focus, a store with upscale extensions is actually perceived to have a lower price image than a store with downscale extensions. This experiment also demonstrates an important boundary condition on the proposed effect: when participants in the narrow focus condition focused on the vertical extension instead of on one of the moderately priced option, there was no contrast effect, such that the store with upscale extensions was perceived to have a higher price image than the store with downscale extensions.

Experiment 3 provides further support for the proposed mechanism by examining participants' choices in a simulated shopping environment. We hypothesized that consumers who frequently purchase vertical extensions would be less likely to exhibit a contrast effect when forming a price image than consumers who frequently purchase more moderately priced options. In this experiment, participants shopped the same nine grocery categories at two stores, one of which carried an upscale extension in each category, while the other carried a downscale extension in each category. Participants either chose one option in each category (buying goal) or simply considered the options available (browsing goal). Consistent with the previous experiments, a browsing goal lead to a higher price image for the store with upscale extensions, but a buying goal lead to a lower price image for the store with upscale extensions. As predicted, however, this effect was stronger for participants who rarely chose vertical extensions and attenuated for participants who frequently chose vertical extensions.

Assimilation and Contrast in Context-Dependent Price Evaluations: The Moderating Role of Category Representation

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Consumers' evaluations of prices have important marketing implications because price perceptions play a major role in decisions regarding what, when, and where to buy. Whether a store is perceived to have high- versus low-priced assortments may prevent or prompt consumers to shop at that store. One pricing problem that has intrigued both academics and marketers speaks to the issue of standards of price comparisons. Central to this problem is the question of how context affects influence standards of comparison and price evaluations. Understanding context effects in perceptual judgments of prices can be instrumental for marketers making successful pricing and assortment decisions.

Two schools of thought regarding how consumers evaluate prices within a context have dominated the consumer behavior literature: Parducci's (1965) range-frequency theory [and, relatedly, Volkman's (1951) range-theory] and Helson's (1964) adaptation-level theory. Price-perception research based on range-frequency theory has proposed that prices are judged relative to other exemplars, with the ranks of prices and the range of the distribution being the standards of comparison and determining price judgments. Alternatively, price-perception research based on adaptation-level theory indicates that prices are judged relative to a single prototypical internal price standard, often the mean of the distribution of contextual prices.

Extant literature pitting these two schools of thought shows that range-frequency theory tends to outperform adaptation-level theory for price evaluations (e.g., Cooke, Janiszewski, Cunha, Nasco, & De Wilde, 2004; Janiszewski & Lichtenstein, 1999; Niedrich, Sharma, & Wedell, 2001). Such dominance ultimately implies that marketers should be concerned about the skewness of the price distribution in terms of its range and frequency, but not about the average price of an assortment. From a theoretical perspective, this implies that exemplar processing models alone can account for price judgment.

However, the advantage of exemplar models in contextual price evaluations operates under two restrictive assumptions. First, from a pricing research perspective, prototype processing is assumed to manifest itself as adaptation-level theory, which predicts that judgments contrast away from the mean of the distribution. However, an alternative prototype process, predicting that judgments could assimilate toward the prototype, has not been considered in pricing research. Second, it is assumed that a single process is used in price evaluations. Meanwhile, a growing body of literature on hybrid-cognitive

systems indicates that humans may have at least two systems available for stimulus representation. Combined with the fact that several studies outside the domain of price evaluations have shown evidence for prototype processing, it is plausible that price evaluation is not guided solely by exemplar processing.

It has been proposed that categorization and contextual judgments can be connected at the representation level via memory processing. We hypothesize that if this connection indeed operates, the way in which consumers represent a category may influence price evaluations. Category representation has been shown to be moderated by two types of learning: classification and inference (Yamauchi & Markman, 1998, 2000). Since classification vs. inference learning may affect the way people encode information about the category it is possible that memory processes affect the way contextual judgments are conducted. Classification learning, on the one hand, is oriented at identifying the between-category structure so that stimuli can be categorized based on the differences of their features, a process consistent with exemplar-processing. Inference learning, on the other hand, is oriented toward identifying the within-category structure so that stimuli can be categorized based on the commonalities of their features with those of other members of the category, a process consistent with prototype-processing. Thus, we propose that when one undergoes classification (vs. inference) learning prior to forming price she should judge prices relative to the range and frequency (vs. the mean) of the price distribution.

We test our hypotheses in four experiments in which consumers learn to categorize cheeses based on their brands (classification) or attributes (inference) prior to judging prices of cheeses. In experiments 1A and 1B, we manipulate the range (1A), frequency (1B), and mean (1A and 1B) of the price distribution. We find that classification learning activates exemplar representation, which in turn makes price judgments contrast away from changes in the range and frequency of the distribution. Alternatively, inference learning activates prototype representation, which in turn makes price judgments assimilate toward the mean of the distribution. In experiment 2, we replicate this pattern of results when the range, frequency, and mean of the distribution vary concurrently. Experiment 3 shows that prices can be judged relative to the mean of the distribution with a more subtle activation of prototype-representation.

Our results shed light on the conditions under which assimilation and contrast effects of price judgments can occur. We obtain assimilation and contrast effects when the context and type of judgments are held constant and the only important construct varying is the representation process employed in a prejudgment, non- price-related, category-learning task. Our results provide evidence that prior history of experience with the product affects the way people judge prices in important ways. When introducing changes to the product assortment, marketers should recognize the context effects on perceptual judgments of the existing products. Similarly, product-line pricing decisions should take into account the effects on price evaluations. For product categories in which consumers intensively acquire information prior to purchase, this research shows that the way consumers learn about a product category will alter the nature of context effects.

Positive Upshots of Negative Emotions

Chair: Uzma Khan, Stanford University

The Rosy Side of Negative Emotions: The Effect of Anger in Decision-Making

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The role of emotions in decision-making is gaining increased attention (Schwartz 2000). Generally, emotions have been shown to have negative effects on decision quality (Shiv et al 2005). For example, one of the most frequently encountered emotions, anger, is perceived as a negative affect that leads to impulsiveness and shallow-processing (Tiedens & Linton 2001), higher action tendencies against others (Frijda, Kuipers & Schure 1989), careless thought (Small & Lerner 2005) and increased risk-seeking (Lerner & Tiedens 2006). Hence, the conventional wisdom is that anger leads to hasty and inferior decisions. In the current research, we argue that negative emotions like anger can have positive effects on decision-making. Specifically, we suggest that in certain decision contexts anger can lead to better outcomes due to a less careful processing of local tradeoffs and a greater reliance on general goal-directed features.

We examine this proposition for two well-established context effects -- choice-deferral and compromise-effect. Tradeoff difficulty, resulting from effortful processing of available options and greater focus on local comparisons, has been implicated in both choice-deferral (e.g., when all options are highly attractive; Dhar 1997) and a tendency to choose the middle option (e.g., to avoid loss on either dimension; Simonson 1989). To the extent that angry individuals engage in less careful processing of local tradeoffs and rely on general goal-oriented action, we predict that they will be less susceptible to choice-deferral as well as a compromise-effect as both these biases arise due to in-depth processing of difficult tradeoffs. In summary, we predict that angry individuals will resolve decision-conflict by basing their choice on their goals rather than the characteristics of the decision context. We tested these propositions in three studies.

In Study 1 participants were induced with anger or neutral emotion and asked to choose between two flight-tickets or defer the decision. Past research has shown that people often defer a choice when provided several attractive options even though each option by itself is seen as sufficiently attractive (Iyengar & Lepper 2000). We hypothesize that angry individuals are less likely to suffer from such decision-inertia. Consistent with our prediction significantly fewer participants deferred the decision to purchase the flight ticket in the anger condition as compared to the neutral-condition (17% vs. 42%).

In Study 2 we examined the effect of anger on choice of the compromised option. Participants chose from either a 2- or 3-options choice-sets in four product categories (laptops, binoculars, restaurants and flashlights). Collapsing across the categories we found the expected compromise effect among neutral-mood participants i.e., a 28% increase for neutral participants in the share when an alternative became a middle-option compared to only a 9% increase in its share among angry participants. We explain this significantly decreased tendency to choose compromise options with the more goal-directed behavior among angry individuals. We propose that: 1) since anger leads to shallower processing and lower risk-aversion, angry people are less likely to go for the middle option which is generally the result of trade-off difficulty and need-for-justification 2) between the two extreme options angry individuals choose the goal-relevant option. In this sense they make more goal-consistent decisions and are less influenced by temporary context-effects.

We tested our prediction regarding greater goal-consistency in Study 3 and found that angry individuals primed with a goal to find a high-quality TV indicated quality-related attributes as more important than control participants. Finally, Study 4 used real choices between two different packs of cookies and showed that angry participants were 1) more likely to choose a pack as opposed to taking the no-choice option and 2) reported greater satisfaction with their choice a week later than sad or neutral-mood participants.

These findings suggest that anger plays an important role in determining individuals' tendency to make a decision and the type of decisions they make. Our initial findings point that angry people may suffer less from decision biases and might be more goal-directed in their choices, which can lead to greater satisfaction in the long-run.

Functional Regret: The Positive Effects of Regret on Learning from Negative Experiences

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Popular wisdom encourages people to “learn from experiences”, but not regret past actions, implying that people can gain all necessary information from their mistakes, without enduring the pain. Academic literature has also viewed regret as detrimental, demonstrating that participants who lost money in a negotiation task lose even more money on a subsequent negotiation task (Zeelenberg and Beattie 1997).

Similarly, Shiv, Loewenstein and Bechara (2005) showed that brain damaged patients who do not suffer negative emotional feedback after a financial loss end up making “better” decisions (i.e., stick to high-risk, high-return investments). We, however, take the evolutionary perspective that regret is functional and necessary for learning from negative experience.

Zeelenberg (1999) notes that regret has both cognitive and emotional components. Most work on regret deals with the cognitive feedback (i.e. correctness of decision) and finds that regret hurts later decisions. To our knowledge, *no* research has examined the role of emotional component.

We suggest and demonstrate that *feeling* regret is *beneficial* in learning from mistakes, but is also domain-dependent. Thus, we hypothesize that:

H1: Experiencing *more* emotional regret will demonstrate *more* learning in subsequent *similar* decisions.

H2: Experiencing *more* emotional regret will demonstrate *no* learning in subsequent *dissimilar* decisions.

To motivate the problem and test hypothesis 1, study 1 examined swim times from the 2008 Olympics. Races are set up so that swimmers compete in semi-finals to qualify for the final race. Prior research has shown that athletes who win silver medals (second place) experience greater negative emotion than do people who win bronze medals, even though they perform objectively better (Medvec, Madey and Gilovich 1995). Therefore, we take the swimmers who placed second (third) in the semi-finals as our high (low) regret condition. The outcome is the percent change from the swimmer’s time in the semi-finals to time in the final race. We find that swimmers who come in second in the semi-finals perform relatively better in the final race than swimmers who placed third or even first in the semi-finals ($t = 2.10, p < .05$). When second place swimmers feel more regret, it leads to enhanced performance in a subsequent trial.

Study 2 tested H1 and H2 in the lab with a mixed 2 (felt-regret: caffeine vs. no caffeine) x 2 (decision domain: similar vs. dissimilar) experiment. All participants felt regret when they went through a rigged buying task where they ended up buying a product (Minnesota car decal) with endowed tokens and then were not able to buy an even better product (electronic game) later on. Based on the research indicating higher levels of emotional arousal after caffeine consumption (Sawyer, Julia and Turin 1982), we manipulated *level* of emotional regret by giving participants caffeinated or decaffeinated coffee.

H1 (similar domain) was tested when participants indicated their WTP for a product similar to the regret-inducing Minnesota decal (Minnesota keychain). H2 (dissimilar domain) was tested by asking for WTP for a dissimilar product (notebook). Consistent with our predictions, a mixed ANOVA, with products as the repeated factor and regret as the between-subjects factor, showed that participants who consumed caffeine (high felt-regret) were willing to pay less for the keychain than participants who had decaf coffee (low felt-regret condition). There was no difference (i.e. no learning) in WTP for the notebook between regret groups.

Overall, we propose and demonstrate that regret is necessary for learning from mistakes and, therefore, can be functional. Unlike the previous literature, we examine experienced *emotional* regret and find that in domains they have failed before, regret actually helps consumers’ make higher quality decisions. Two studies in-progress will replicate and extend these findings.

Can't or Won't: Examining the Effects of Negative Emotions on Self-control

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Negative emotions have been shown to reduce self-control to the point where negative emotions and self-control are considered antithetical. Contrary to this view, this research shows that under certain conditions negative emotions can increase self-control; increases are moderated by emotion-regulation cognitions which vary across emotion type and individuals.

The theory underlying this nuanced view of negative emotions and self-control relies on emotion-regulation (the need to feel better) and a heretofore unexamined variable – emotion-regulation cognitions. These cognitions refer to thoughts regarding what self-control behaviors would make one feel better.

In study 1 we manipulate emotion-regulation cognitions, making participants believe that either increasing/reducing self-control will help them feel better. We also manipulate emotions – Sad and Neutral. Given that sadness has been previously shown to consistently reduce self-control, demonstrating an increase in self-control would be novel. Neutral emotion allows us to (a) manipulate the salience of the emotion-regulation goal. That is, neutral participants should have only a weak emotion-regulation goal and (b) to determine whether *absolute* increases/decreases in self-control occurs unlike prior research that has compared sadness to positive emotions.

Given the differential activation of the emotion-regulation goal, we predict that Sad (active goal) will show self-control levels commensurate with their emotion-regulation cognitions, whereas Neutral (inactive goal) will show no such differences. This prediction was supported. Neutral individuals showed no difference across cognition conditions, whereas Sad individuals differed. Importantly, Sad individuals who believed increasing self-control would make them feel better showed more self-control than Sad individuals who believed reducing self-control would make them feel better. These results are contrary to depletion theory which argues negative emotions deplete resources, and therefore lead self-control failures. Yet here, equally depleted (Sad) individuals show different self-control levels; these differences emerge due to differences in their emotion-regulation cognitions. The results also show an absolute increase in self-control for sad individuals, a novel finding.

In study 2 we measure emotion-regulation cognitions in a pretest examining two different negative emotions (sadness and guilt). The data shows that guilty individuals find reducing self-control less useful for emotion regulation than sad individuals. Subsequently, we manipulate Sadness, Guilt, and Neutral. We also directly manipulate the activation of the emotion-regulation goal by providing half our participants with a brief emotion-relief procedure. We predicted that when the emotion regulation-goal was active, Guilty individuals would show higher self-control than both Sad and Neutral individuals. However, when the emotion-regulation goal was inactive, no differences were expected. This prediction was confirmed showing (a) negative emotions led to *absolute increases* in self-control, and (b) the importance of an emotion-regulation goal.

In study 3 we use Sadness and Guilt based on Study 2 pretest. We also examine individual differences as a moderator. To do so we measure Guilt-Proneness (GP henceforth) - a factor related to emotion-coping and shown to differentiate individuals who respond to guilt in prototypical ways (e.g., self-denial/punishment) and those who don't. We predicted that only Guilty individuals high in GP will show increases in self-control. As predicted, Guilty participants high in GP showed higher self-control than Sad, Neutral, and Guilty participants low in GP. This finding further confirms that (a) negative emotions can lead to *absolute* increases in self-control, and (b) the increase has to do with cognitions regarding regulation of negative emotions.

These findings together suggest that we need to adopt a more nuanced view of the relationship between negative emotions and self-control. They also show that emotion-regulation cognitions play a significant role in that relationship.

The Effect of Brand Awareness on Intrusive Advertising

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Most people expect that uninvited ads for a new brand that rudely interrupt shopping or search will hurt the brand. This common lay theory is both supported and contradicted by research on negative brand associations. In support, research on *evaluative conditioning* predicts that pairing the brand with a negative event decreases attitude towards the advertised brand (De Houwer, Thomas, & Baeyens 2001). Contradicting that lay theory, research on *mere exposure* effects predicts that simply exposing consumers to a new brand will, over time, improve fluency and, as a result, improve preferences for the brand (Shapiro, MacInnis, & Heckler 1997; Shapiro 1999; Janiszewski 1993; Winkielman & Cacioppo 2001; Fang, Singh, Ahluwalia 2007).

We propose that both effects occur simultaneously when new brands use intrusive ads that generate frustration and negative affect. Our results are consistent with predictions of consistently positive mere exposure effects when consumers are unaware of the advertised brand or when concurrent frustration is low. In contrast, when the concurrent frustration is high (i.e. when the ad format is highly intrusive) and participants are aware of the advertised brand we propose that negative evaluative conditioning effects overwhelms the positive mere exposure effects, thus producing a lowered brand evaluation.

In two studies, participants are asked to shop online in exchange for payment for performance on the shopping task. The shopping task was repeatedly interrupted by advertisements, some moderately intrusive and some highly intrusive. In experiment 1, moderate vs. high frustration was manipulated by removing clear ways for removing the intrusive ad. This manipulation results in high frustration for early ads when participants are unable to quickly rid of the ad, but only moderate frustration once participants had learned to remove the ads quickly. In experiment 2, frustration is manipulated through a 5 second built-in delay in the “close” button for every other interrupting ad and no delay for the remaining ads. In both studies we find that exposure to even highly frustrating and intrusive ads result in improved valuation of the advertised brands when participants do not recognize the advertised brand. In contrast, when participants do recognize the brand advertised in highly frustrating ads, brand evaluation suffers. For moderately frustrating ads, brand evaluation is not hurt by recognition although participants did not perceive differences in frustration between high and low frustration ads. Follow-up analyses rule out a deliberate “punishment” of frustrating ads by participants and confirm the accuracy of our recognition measures.

These results of improved brand evaluation from repeated exposure – even from intrusive ads – is consistent with psychological studies suggesting that perceptual fluency is inherently positive (Winkielman & Cacioppo 2001). We build on the effects of Winkielman and Cacioppo by showing that perceptual fluency remains even within the context of highly frustrating ad formats. The finding that negative brand evaluations dominate when brand exposure is paired with concurrent frustration and ads are processed sufficiently to generate recognition furthermore supports prior research suggesting that target stimulus awareness is critical for evaluative conditioning (Field & Moore 2005), while the positive mere exposure effect is largely independent of awareness (Janiszewski 1993).

Health and Hazard: Healthy Lifestyle Choices and Consumer Well-Being

Chair: Amit Bhattacharjee, University of Pennsylvania

Discussion Leader: Paul Bloom, Duke University

License to Lapse: The Effects of Weight Management Product Marketing on a Healthy Lifestyle

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Obesity has been declared a public health epidemic in the United States (Seiders and Petty, 2004), and has been linked to increased risks for a multitude of serious health conditions (Koplan, Liverman, and Kraak, 2005). As of 2004, 32.9% of adults in the United States are obese, and 66.2% are obese or overweight (Ogden et al., 2006). Meanwhile, consumers are trying increasingly harder to maintain a healthy lifestyle, and the coincidence of these trends has been dubbed the “American obesity paradox” (Heini and Winsler, 1997).

Given these developments, the demand for safe and effective weight management solutions has intensified, and the marketplace has responded. An assortment of weight management and fat-fighting products has proliferated. Market researchers have estimated that the weight loss product industry in the United States raked in \$58.7 billion in 2007, and revenues are projected to reach \$68.7 billion by 2010 (Marketdata Enterprises, 2007). Moreover, these weight loss products have promoted themselves heavily to consumers, with the prevalence of weight loss advertising, as well as the number of products, dramatically increasing (Cleland et al., 2002). Though such weight management solutions appeal to many consumers, recent research suggests that there may be unintended consequences that actually undermine consumers’ intentions to engage in a healthy lifestyle. Hence, marketing of such products may unwittingly exacerbate risky decision making and reduce, rather than improve, consumer welfare.

Consistent with the notion that consumers adaptively cope with perceived risk in the environment (e.g., Floyd, Prentice-Dunn, and Rogers, 2000), recent research suggests that remedy messages undermine risk avoidance and increase risky behavioral intentions, particularly for those consumers most at risk. Specifically, problem status (or the relative attractiveness of the problem domain) moderates the effects of remedy marketing messages on consumers (Bolton, Cohen, and Bloom, 2006). Recent evidence suggests that two psychological mechanisms drive this boomerang effect of drug marketing on consumer health. First, drug marketing reduces consumer perceptions of health risk and lessens the perceived importance of complementary health-protective behaviors, so consumers are less motivated to engage in these healthy behaviors. Second, drugs are associated with poor health, reducing consumers’ perceptions of their own health and their self-efficacy, and thereby diminishing their perceived ability to engage in complementary behaviors (Bolton, Reed, Volpp, and Armstrong, 2008). Lacking both motivation and perceived ability to undertake health-supportive behaviors, consumers are unlikely to do so, leading to less healthy lifestyle intentions and a reduction in consumer welfare. Interestingly, this pattern does not hold for supplements: unlike drugs, supplements are not associated with poor health, and suggest by their very name that they are meant to be used as part of an overall health-protective regimen.

Building on prior research, we present a series of five studies conducted across samples of university students and field samples of adults from a daycare center and members of a fitness club. These studies seek to further investigate the boomerang phenomenon and its robustness in a substantive domain of particular concern to society—the obesity epidemic. Since we examine the role of weight management product marketing, we focus on consumer beliefs that guide the processing of such messages and underlie corresponding behavior (c.f. Chandon and Wansink, 2007; Raghunathan, Naylor, and Hoyer, 2006). Results thus far can be summarized as follows: 1) Actual consumption of high-fat foods increases with mere exposure to weight management drug versus supplement remedy messages, particularly for those participants who are hungriest, and thus most attracted to the problem domain; 2) Healthy behavioral intentions decrease when participants imagine taking a weight management drug versus supplement, particularly for those participants who suffer from body image issues and have a problematic relationship with this domain of unhealthy behaviors; 3) As theorized, the boomerang effect of weight management drug marketing on healthy behavioral intentions is mediated by decreased motivation and a perceived decrease in ability to engage in health protective behaviors; 4) Evidence from two

field samples of real consumers with a range of knowledge levels suggests that erroneous consumer beliefs about drugs and supplements underlie the boomerang effect of weight management drug marketing. While the boomerang is partially mitigated by more accurate knowledge, only the highest levels of knowledge (reflecting specialized medical training or expertise in drugs and supplements) are sufficient to eliminate it completely.

Overall, the present research builds on past research and contributes to the literature in several notable ways. First, past research has tended to investigate the boomerang phenomenon by examining behavioral intentions after imagined consumption of a remedy, and these results are replicated here in the domain of weight management. However, to our knowledge, the present research is the first to demonstrate the boomerang effect of drug marketing on actual behavior, and the first to demonstrate a boomerang arising from mere exposure to a drug marketing message. Second, the present research indicates that the boomerang effect can be influenced by both transient visceral factors (e.g., hunger) and relatively stable individual differences (e.g., body image) that alter the relative attractiveness of the problem domain. Taken together, these results provide initial evidence that while drug marketing can influence mindful, intended consumer behavior, it can also impact consumer behavior in relatively mindless eating contexts, highlighting the power and robustness of the boomerang phenomenon. Third, the present research provides evidence for the underlying role of consumer beliefs, suggesting that consumer activation of a drug-and-supplement-knowledge schema in response to weight management remedy marketing may account for the results in these contexts. Finally, the present research investigates the role of consumer knowledge underlying the boomerang phenomenon in field samples of real consumers. Only highly specialized medical training appears to mitigate the erroneous beliefs underlying the boomerang; even otherwise well-educated consumers are susceptible, supporting the robustness of the phenomenon. In summary, the present research represents a call to action to develop efforts to mitigate the boomerang of drug remedy marketing for weight management, a domain crucial to the health and well-being of consumers.

Is it Always Good to Feel in Control? Extension of Worldview and Health Locus of Control

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An important determinant of the threat posed by a contagious disease is the risk of the disease in the population at large, or “others’” risk. If others’ risks are perceived to be low, individuals may feel less compelled to engage in preventive health behaviors to protect themselves from disease, while if others’ risks are presumed to be high, one would expect the opposite effect. This research examines how extending one’s worldview regarding Health Locus of Control to others can affect perceived others’ risk and prevention intentions in the face of a serious contagious disease (HIV).

Individuals with high internal Health Locus of Control (Wallston, Wallston, Kaplan and Maides, 1976; Wallston and Wallston, 1981) believe that one’s health is largely a result of one’s own behavior, while at other end of the dimension, “health externals” believe that the factors that determine one’s health are largely uncontrollable (i.e., external factors such as luck, fate, or chance). Previous research on Health Locus of Control (HLC) suggests that the feeling that one is in control of one’s health is associated with certain preventive health behaviors (Norman, Bennett, Smith and Murphy, 1998), such as the ability to stop smoking (e.g., Coan, 1973; Kaplan and Cowles, 1978) and performance of exercise and dieting behaviors (Norman et al., 1998).

The concept of others’ risk is particularly important in a contagious and preventable disease context because research has shown that perceived self-risk may not always increase prevention behaviors. While the standard view (Health Belief Model; Becker, 1974) proposes that increased vulnerability (self-risk) drives increased prevention, an alternative view suggests that this relationship is reciprocal. That is, perceptions of vulnerability to HIV reflect conceptions of risk and precautionary behavior. Thus, prevention may decrease reported vulnerability if implemented or even planned (Gerrard, Gibbons and Bushman, 1996). In this manner, intending to increase condom use can lead to decreased perceived vulnerability to HIV. As a result, in a contagious disease context, perceptions of others’ vulnerability may play a particularly important role in influencing prevention. Others’ risks can serve as a relative benchmark for self-risk and encourage or discourage preventive behaviors.

The current research examines how the extension of individual worldviews of control to others influences perceptions of others' risk and personal prevention intentions. Beliefs regarding control over health may influence prevention when extended to others, due to potential false consensus effects. If an individual believes that he is in control of his health and can prevent HIV, extension of his worldview to others would suggest that others can and will prevent HIV as well. Thus, if others prevent, others are at low risk, and, with others at low risk in a contagious disease context, one's own risks are reduced.

We suggest that this leads to ironic effects on prevention intentions and perceived other-risk for health internals and externals. When extending their worldview, internals, being more vigilant of their own health, may feel that others are at low risk, and may thus see less need to protect themselves. Conversely, when externals, who are less vigilant, extend their worldview, they may believe that others are at higher risk, and thus see more need to protect themselves. We use two distinct manipulations to examine the interaction between Health Locus of Control and extension of worldview, each presented to participants before reading threatening health information on HIV. In Study 1, we examine the effects of false consensus of beliefs instantiated by Mortality Salience (previous research suggests that individuals primed with mortality salience exhibit greater perceived consensus of their views (Pyszczynski, Wicklund et al., 1996)), and in Study 2, we examine self versus other perspective-taking.

In Study 1, participants were presented with the threat of HIV following a mortality salience (versus a dental pain) prime, and were asked to rate their own risk of being infected with HIV, the average other's risk of being infected with HIV, and their intentions to engage in future HIV-preventive behaviors. While perceived self-risk did not shift, a moderated regression analysis on both others' risk ("how likely do you think the average individual is to contract HIV") and prevention intentions (e.g., index of condom use, selectivity in sexual partners, etc.) revealed that a more internal health locus of control, while leading to increased HIV prevention intentions and perceived other-risk at baseline (dental pain prime), becomes maladaptive and leads to lower preventive intentions and reduced perceived other-risk under mortality salience. We interpret these findings as reflecting a false consensus process whereby mortality salience leads to an increased perception of others' risks being similar to one's own, reducing the perceived population risk, and thus reducing overall HIV prevention intentions.

Study 2 manipulated the (self vs. other) focus of the health message while again measuring health locus of control. This study directed participants to either take on a self-view, or an 'average other'-view (akin to the externalized worldview that we propose happens under mortality salience in Study 1) while reading HIV information. In this sense, Study 2 allowed us to examine whether the mechanism of false consensus (encouraged by other focus) would reverse the preventive advantage of internals and influence perceptions of others' risk, as seen in Study 1. Again, while perceived self-risk did not shift, a moderated regression analysis on perceived others' risk and prevention intentions revealed that a more internal health locus of control, while increasing HIV prevention intentions with a self-focus, becomes maladaptive and leads to lower preventive intentions and perceived other-risk with an other-focus.

This research has important implications for the communication of health messages, specifically those that spur the extension of worldview. This type of message could potentially lead to increased risk-taking behaviors among those individuals who would normally engage in very protective, preventive behaviors, as evidenced by our initial study. Our research may help elucidate why certain health appeals may be more or less effective depending on the presence or absence mortality salience, the focus of the appeal (the self or others), and the degree of an individual's health locus of control.

The Effect of Self-Awareness on Goal Setting, Consumption, and Consumer Well-Being

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Many consumers set goals such as counting calories, carbohydrates, or fat grams to manage health concerns (Crossen, 2003; Fetto, 2002; Parker-Pope, 2003). Goal theory states that "goals that are specific and difficult lead to a higher level of performance than vague, nonquantitative goals such as "do your best," "work at a moderate pace," or no assigned goals," (Locke and Latham, 1990, p. 29). Locke and Latham also underline that individuals with less demanding goals

will be more satisfied with their performance compared to individuals with more demanding goals. Our research examines whether consumers will more sustainably and successfully reach their objectives through the use of goals or through the use of behavioral predictions, and examines these two approaches across varying levels of specificity. In addition, this research explores the role of self-awareness in developing behavioral predictions and goals. Furthermore, we examine how consumers' processes, success rates, and well-being differ depending on their level of dietary restraint.

The 'Performance-Success Dilemma' predicts that at the more difficult end of the goal continuum, as performance increases, satisfaction decreases (Locke and Latham, 1990), and goals may be counter-productive for consumers (Soman and Cheema, 2004). We demonstrate that while consumers who set specific consumption goals do achieve lower consumption levels, they also more often fall short of their goals, compared to consumers setting a goal range or consumers making predictions about their future behavior. Thus, despite achieving relatively better results, they feel unsuccessful and experience lower levels of enjoyment.

We propose that one reason for this dilemma is consumers' conflicting self-awareness roles (Markus, 1977, 1983; O'Donoghue and Rabin, forthcoming). Consumers vary in their ability to predict future successful self-regulation attempts (Chandon, Morwitz, and Reinartz, 2005). We hypothesize that consumers make more accurate behavioral predictions when they estimate their future behavior than when they set a goal, because consumers set aggressive goals and inaccurately believe they will achieve the focal goal. We find that on one hand, consumers are capable of making highly precise behavioral predictions about their consumption behavior when they do not have the pressure of perceiving the prediction as a goal, and they can later use this information when creating certain types of goals; on the other hand, consumers tend to be inaccurate in their ability to predict achievement of a specific goal. Our research unravels this conflict in self-awareness and demonstrates how these conflicting degrees of self-awareness are used in the goal creation process. We find that when consumers develop difficult, specific goals, they tend to ignore the self-awareness they have regarding behavioral predictions, and only focus on their inaccurate assessment of successful goal attainment.

Our experiments demonstrate that restrained eaters—those consumers who are chronically focused on managing their weight and food consumption (Herman and Polivy, 1975, 1980; Herman et al., 1987)—experience a more difficult process to reach their objectives. While these consumers do reach their immediate objectives (Ward and Mann, 2000), they may be less successful in sustaining their efforts over the long term. Specifically, in our studies, during the process of reaching their stated consumption objective, restrained eaters more often thought constantly and continuously about the focal food, and felt more regret, guilt, embarrassment, and feelings of over-consumption about the food. However, despite these difficulties during the consumption process, the restrained consumers' performance outcomes were not significantly different than those of unrestrained consumers.

We hypothesize that this influences consumers' well-being in two notable ways. First, those consumers achieving very low levels of consumption tend to set stringent goals, so that despite their lowered consumption, they reach their goals less often. These consumers tend to feel relatively less successful, and do not enjoy the process of eating even pleasant products such as chocolate. We suggest that consumers in this state may have a more difficult time sustaining such a performance level over time, and may also tend to be less happy. Second, restrained eaters experience a highly stressful process relative to unrestrained eaters. Although they experience comparable levels of performance and success relative to unrestrained eaters, the strain and difficulty restrained eaters experience during the process may negatively impact their ability to sustain their performance over the long term, which may result in these consumers being relatively unhappier. Our research contributes to the goal theory literature and the literature on behavioral predictions, consumption, and over-consumption. We identify when consumers use self-awareness information in goal creation and achieving objectives. This research predicts which approaches (predictions or goals, specific or non-specific) yield successful short-term and sustainable outcomes. This research explains how goals and consumption behavior impact consumer well-being: we demonstrate that restrained consumers are generally unhappy during the process of striving to reach goals and estimates, and that consumers striving for a specific goal generally experience feelings of failure and a lack of enjoyment. Therefore, consumers may be better served in the long-run by making behavioral predictions and adhering to their predictions.

Product and Brand Perceptions

Chair: Anat Kienan, Harvard University

The Effect of Claim Type on Immediate Arousal Response and Purchase Intent

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Recently, there has been a call for a methodological shift from introspective measures to actual behavior (Holmes, 2008) and even more specifically, shift from measurements of behavioral end states (e.g. reaction times or accuracy) to trajectories of behavior (Spivey, 2007). This requires new methods and technology that accurately measure neural states via their biological correlates.

Prior findings on the effects of visual and audio stimuli have found physiological responses that correlate with components of emotional response (Bradley, Miccolli, Escrig & Lang, 2008, Partala & Surakka, 2003). The stimuli used in these studies typically involve images or sounds that were chosen to elicit a wide range of emotional reactions. Moreover, past studies required methods that could not easily attribute physiological responses in detail. Pupil dilation, for example, is correlated with arousal for IAPS images (Bradley et al., 2008) however this difference requires controlling for luminance and a time delay of several seconds to allow for the pupil response to develop. This makes pupil dilation measurements difficult to attribute to specific objects, since eye movements occur rapidly and frequently (Rayner, 1998). Our study used a presentation method designed to accommodate the measurement issues of pupil dilation while also providing a more natural way to test product ideas.

45 female employees of a consumer goods company participated for product coupons. Subjects' eye movements were tracked using Tobii eyetrackers. All subjects viewed 3 video clips that described 3 products from different brands (Tide, Downy, and Crest) using voice-over narration and a set of small still images (4 images for each product).

In order to account for differences in stimuli luminance on pupil size, each product video had the same set of images in each narrative stage. One image was presented in each corner of a 3x3 grid in order to ensure that: the subject was focusing on the intended image, each picture was viewable with one fixation, and pupil responses in the same squares could be compared across conditions.

Each trial began with a statement that identified a common consumer problem with an illustrating photograph. The product was introduced in the second panel. Reasons to purchase were given in the third panel, and ended with a sentence that presented a claim focused on emotional approach (e.g., "keep your mouth feeling fresh"), emotional avoidance (e.g., "avoids the embarrassment of bad breath"), functional approach (e.g., "keeps your teeth clean"), or a functional avoidance (e.g., "fights tartar and plaque"). The fourth panel repeated the product name and price. At the end of each panel's narration, there was a three second pause while the photo remained on screen. This allowed measurement of a pupil response caused by differences in sentence structure while maintaining luminance. Due to an equipment failure, participants only saw 3 out of 4 trials; the omitted product was distributed randomly across conditions.

After viewing each product, subjects verbally responded to three questions about purchase intent: a yes/no purchase intent question, a graded probability of purchase question ("On a scale from 1 to 10... how likely you are to buy this product?"), followed by a free response question. Finally, the subjects were asked to recall the product's name. Participants then completed an Evaluative Movement Assessment, a test of implicit preference, for all 3 brands and the omitted brand (Brendl, Markman & Messner, 2003).

Arousal response was calculated by subtracting the average pupil size in the last 30% of the square's display time, which corresponded to the target sentence in square 3 and the inter-frame interval, from the average pupil size of the preceding display time. The change in pupil diameter during square 3 was of key interest, since the audio and visual stimuli were identical for the other squares.

Emotion vs. Function. Fourteen subjects had to be eliminated from the analysis due to a loss of eyetracking/blinking during one or more of the trials. A two-way ANOVA found a marginal main effect of emotional/functional claims, ($F(1,30) = 3.459, p = .07$) and a significant main effect of display square ($F(3,90) = 4.737, p < .01$). A planned comparison

of the results in square 3 revealed that the average pupil change was higher during the final seconds of square 3 in the emotion condition when compared to the function condition. ($t(30) = 4.22, p < .001$). When the other squares in the emotion condition were compared to their counterparts in the function condition there were marginal differences in squares 2 ($t(30) = 1.98, p > .05$) and 4 ($t(30) = 1.96, p > .05$). There was no difference detected in square 1 ($t(30) = 1.58, p > .12$). In squares 1, 2, and 4, the average pupil change was lower in the emotion condition than the function condition. Approach vs. Avoid. There was no main effect of the approach/avoidance manipulation ($F(1,31) = .003, p > .63$), or display square ($F(3,93) = .015, p > .35$) on pupil size, nor an interaction ($F(3,93) = .535, p > .65$). Thirteen subjects had to be eliminated due to track loss or blinks during the critical period.

Implicit Measurements, Arousal and Purchase Intent. For all claim types, there was no evidence of EMA correlating with arousal response (all $p > .29$) or probability of purchase (all $p > .26$). Pupil response was correlated with probability of purchase for approach claims ($r(36) = -.32, p < .05$). For the other claim types, pupil size was not correlated with probability of purchase (all $p > .22$).

To summarize, sentences using emotional appeals elicited arousal in consumers measured via pupil size. No difference in response was found for approach versus avoidance framing. For approach frames, decreases in arousal were associated with an increase in purchase intent. The pupil response generated by other types of claims did not predict later purchase intent and implicit preference did not predict pupil response for all claim types. These findings suggest that arousal responses can be attributed to specific components of product presentations. Moreover, the present research introduces an ecologically valid means of constructing biometric assessments in a properly controlled experimental framework.

Powerful Corporation or Victorious Underdog? Emphasizing the Underdog Narrative in Brand Biography

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“We started Nantucket Nectars with only a blender and a dream...”

“In September 1998, Google Inc. opened its door in Menlo Park, California. The door came with a remote control, as it was attached to a garage...”

Despite Americans' infatuation with winners, stories about underdogs – conventionally defined as “the ones expected to lose,” – are pervasive in contemporary culture, appearing in sports, politics, religion, literature, and film. Both candidates in the 2008 presidential election, Barack Obama and John McCain, positioned themselves as underdogs to gain the support of voters, as did presidential primary candidates Hillary Clinton, John Edwards, Mike Huckabee, and Ron Paul. Underdog author J.K. Rowling, a welfare mother who wrote seven of the best-selling books of all time, created a lovable underdog character, Harry Potter, an inexperienced but passionate orphan who grew up in a closet and pitted him against the powerful dark lord Voldemort. Television coverage of the 2008 Olympics highlighted underdog components of the athletes' biographies, from swimmer Michael Phelps' single mother to gymnast Shawn Johnson's parents taking out a second mortgage on their home to pay for her gymnastics lessons.

In this research, we examine how marketers can use underdog narratives to positively impact consumers' perceptions of their brands. We show that conveying an underdog image for a brand is especially effective to combat anti-corporate consumer backlash. In recent years, some of the world's largest and most popular brands have been targeted by consumer activists, while consumer movements explicitly promoting small local businesses have thrived (Thompson and Coskuner-Balli 2007; Schor 2009). As brands grow and become successful, they are often marked by the negative stigma that comes from being large and powerful. As Starbucks, a brand with humble roots in the artisan coffee culture of Seattle, grew and successfully expanded worldwide, an anti-Starbucks counterculture began to emerge. Many consumers patronized their local coffee shops because they could no longer identify with Starbucks' size and dominance (Thompson and Arsel 2004). Through our research, we demonstrate that brands like Starbucks can use underdog narratives to

emphasize their humble beginnings and can mitigate this “curse of success” to help them maintain a positive image as they grow.

Underdog narratives are delivered to consumers through the rhetorical device of the brand biography, an unfolding story that chronicles the brand’s origins, experiences, and evolution over time in a selectively told narrative. Increasingly, firms are using their product labels, corporate websites, and marketing communications to tell the biographical stories of their brands. Many contemporary brand biographies contain underdog narratives. These underdog brand biographies highlight the companies’ humble beginnings, hopes and dreams, and noble struggles against adversaries. Nantucket Nectar’s label informs us that they started “with only a blender and a dream,” and brands such as Google and Clif Bar celebrate their garage origins

We argue that the effectiveness of these brand biographies is driven through a process of consumer identification. In the case of the underdog, consumers identify with their failures and struggles, and root for them because of the underdog aspects of their own lives. The underdog biography is one with which we can all identify. We have all felt disadvantaged in comparison to others at one time or another. We have also all dreamed of overcoming impossible odds and have believed that if we just work hard enough we can achieve fame and fortune. Disadvantaged underdogs who overcome great odds through their passion and determination resonate with us, because they make us feel like we can overcome great odds in our lives. When the underdog succeeds, we succeed.

As the underdog narrative is an under-explored topic in consumer research, we began with an exploration of the components of the underdog biography and developed an underdog disposition scale. We found two distinct factors that define an underdog: passion and determination, and external disadvantage. To be an underdog, one must be high on both factors. Next, we used a series of four experimental studies to investigate different aspects of the underdog brand biography to develop a rich multi-faceted understanding of its effects on consumers and brands. In study 1, we explore consumers’ attitudes towards a hypothetical company that either has an underdog brand biography or a top dog brand biography and investigate the mediating role of identity, and the moderating role of consumers’ underdog dispositions. We also manipulate the identity value of the product category. In study 2, we investigate whether affinity for the underdog will hold in a real choice setting for brands of chocolate. We also investigate the role of priming consumers’ underdog identities using movie plots, and as in study 1, test the impact of the underdog effect in both highly identity relevant and less identity relevant purchase settings. In study 3, we explore how identification with the underdog affects consumers’ well-being, by investigating how reading an underdog biography for Abraham Lincoln can increase self-efficacy more than reading a top dog biography of him. We also use a different method to prime consumers’ underdog identities than in study 1. In study 4, we test whether an underdog brand biography can be a successful defense against the negative perceptions that are associated with being a large corporation.

Consistent with our proposition we demonstrate that the positive effect of underdog brand biographies is driven by identity mechanisms. Specifically, we show that the underdog effect is a) mediated by identification with the brand, b) stronger for consumers who self-identify as underdogs, and those who are primed with an underdog identity, and c) stronger for product categories and purchase contexts that are symbolic of identity. These findings suggest that the underdog brand biography is so powerful because it appeals to a consumers’ identity needs. We also show that self-efficacy can be increased by learning about another’s underdog biography, and that a company can overcome the negative stigma associated with size through the strategic application of an underdog brand biography. We conclude with a discussion of the theoretical implications of brand biographies and the underdog effect for research on brand meaning and consumer-brand identification.

The Antecedents and Consequences of Defensive Attributions in Product-harm Crises

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Product harm crises, “discrete, well publicized occurrences wherein products are found to be defective or dangerous” (Siomkos and Kurzbar, 1994), can cause damage to both the financials and reputation of a company. Research suggests

that an important determinant of the amount of damage the company incurs is the degree to which consumers blame the company for the crisis. Blame attributions for product-harm crises can have a variety of negative consequences for the company, including reduced consumer satisfaction with the product, increased consumer complaints, desire for refunds, et cetera. These findings suggest that blame attributed to a company in association with a product-harm crisis will negatively affect attitudes toward a brand, purchase intentions, and recommendations relative to the company's products. To date, research on blame attributions has focused on the people personally involved with the product or company (actors). There is a substantial body of research that suggests that actors process information about an event differently than do people who are merely exposed to information about the event (observers) (Jones and Nisbett, 1972). From a practical perspective, it is also very important to understand observers' judgments since most consumers learn about a product harm crisis indirectly instead of actually being involved in that crisis. The current research attempts to identify factors that can potentially influence blame attributions of "observers" of a product-harm crisis. Specifically, we looked at the role of severity of the crisis, familiarity of the brand involved in the crisis, and personal vulnerability of the observers and victims of the product-harm crisis in determining blame attributions.

Although the marketing literature has not addressed mechanisms underlying blame attributions, social psychology research related to the defensive attribution hypothesis offers some potential insights into these mechanisms. The defensive attribution hypothesis posits that when an incident results in a more severe outcome and/or observers feel more personal vulnerability in relation to that incident, more blame will be attributed to a potentially responsible party (Shaver, 1970). Further, outcome severity is an important feature of product failures and product-harm crises in marketing contexts. For example, minor product defects have a miniscule effect on consumers, whereas major defects can lead to catastrophe. In addition to the defensive attribution hypothesis stating a general relation between outcome severity and blame, research suggests that brand familiarity could moderate this effect. Specifically, consumers' preexisting beliefs and attitudes associated with familiar brands are highly resistant to change (Davies, 1997).

In two studies, Ss read a product harm scenario in which the severity of the product harm crisis was manipulated, after which Ss were asked to make a series of judgments in relation to the product harm crisis including the amount of blame attributed to the consumer, the amount of blame attributed to the company, personal vulnerability, future purchase intentions, and attitudes about the company involved.

Experiment 1 was designed to test the impact of increased severity on blame attributions in a product-harm crisis scenario about orange juice and, additionally, to test the possible moderating effect of brand familiarity. Experiment 1 yielded support for the defensive attribution hypothesis by demonstrating that increased severity of a product-harm crisis predicted increased blame to the company and decreased blame to the consumer. However, highly familiar companies seemed to be somewhat buffered against these effects. Specifically, for a high familiarity company more blame was assigned to the consumer than the company and increased severity of the product-harm crisis did not reduce blame to the consumer.

Although the results of experiment 1 support the defensive attribution hypothesis, there are several issues that remained to be addressed. Namely, given the scarcity of previous research examining the defensive attribution hypothesis, it would be desirable to conceptually replicate these findings in a different product domain. Next, although a relation has been demonstrated between severity and blame attributions, experiment 1 did not examine the relation between personal vulnerability and blame attributions. Finally, a model connecting antecedents and consequences of blame attributions is desirable in order to clarify understanding of the blame phenomenon. Experiment 2 addressed these issues.

In addition to severity, similarity to the affected customers was manipulated in a product harm crisis scenario about tires. The results of experiment 2 indicate that blame to the company is positively related to participants' feelings of personal vulnerability in relation to the product-harm crisis. Further, instead of personal vulnerability predicting blame to the company independent of the effects of perceived severity, personal vulnerability only influences blame indirectly through its relation with perceived severity. Finally, blame to the company was negatively related to attitudes toward the brand, which were in turn related to purchase intentions and product recommendations.

These results suggest that the defensive attribution hypothesis plays a key role in blame attributions related to product-harm crises by demonstrating the importance of outcome severity in predicting blame attributions associated with two different product-harm crises in relation to two unrelated product categories (beverages and tires), and with both

familiar and unfamiliar brands. These findings extend the existing literature and expand our understanding of blame attributions by establishing a causal chain from antecedents through consequences and by enriching basic social psychological research in this domain through a demonstration that brand familiarity moderates blame attributions in the product harm context.

- Davies, M. F. (1997). Belief Persistence after Evidential Discrediting: The Impact of Generated versus Provided Explanations on the Likelihood of Discredited Outcomes. *Journal of Experimental Social Psychology*, 33 (June), 561-578.
- Jones, E. E., & Nisbett, R.E. (1972). The Actor and the Observer: Divergent Perceptions of the Causes of Behavior. In E. E. Jones, D. E. Kanouse, H. H. Kelley, R. E. Nisbett, S. Valins, and B. Weiner (Eds.), *Attribution: Perceiving the Causes of Behavior* (pp.79-94). Morristown, NJ: General Learning Press.
- Shaver, K.G. (1970). Defensive attribution: Effects on Severity and Relevance on the Responsibility Assigned for an Accident. *Journal of Personality and Social Psychology*, 14 (1), 101-113.
- Siomkos, G. J. & Kurzbard, G. (1994). The Hidden Crisis in Product-Harm Crisis Management. *European Journal of Marketing*, 28 (2), 30-41.

Self-Brand Attraction: An Interpersonal Attraction Approach to Brand Relationships

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Are brand-consumer relationships the same as interpersonal relationships? For almost a decade, brands have been theorized as parasocial entities with which consumers can form personal attachments (Fournier, 1998; Aaker, 1997). But what is the nature of this relationship? Further, can the interpersonal metaphor truly be extended to the person-brand context? If brands do have personalities, is it enough to simply like the “person”? Or, might a feeling of reciprocated affection from the brand itself also play a role, as human interpersonal attraction theory might predict?

In this research, we build from previous research in marketing that has accounted for brand-consumer connections as relationships (Fournier, 1998) and theorized that brands have personalities (Aaker, 1997). Specifically, we take both of these ideas seriously by using the interpersonal attraction paradigm from relationship research (Byrne, 1961) to better understand brand relationships and to predict self-brand attraction better than competing theorizations (e.g., Keller, 1993). Our findings show that felt similarity toward the brand and its associations is necessary, but does not sufficiently account for consumers’ opinions toward, connections with, and felt closeness to brands (i.e., the brand relationship). We further specify Fournier’s insight by showing that relationships aren’t simply about felt kinship with brands; they’re dyadic in the sense that one must also consider the reciprocal liking of the brand for the person.

Thus, in accordance with Byrne’s theory of interpersonal attraction (Byrne, 1971), we predicted participants would convey a closer relationship to the brand the more similar they felt they were to the brand. Also in accordance with Byrne’s findings, we predicted the brand’s attitude toward the participant would play a role. Specifically, we predicted that the positive relationship between self-brand similarity and brand relationship closeness would only hold when participants felt that the brand did not like them more than they liked the brand. This prediction stems from research in the reciprocity literature, which suggests that excessive liking can convey unselectivity and even desperation (Eastwick, Finkel, Mochon, & Ariely, 2007). To test these predictions, we adapted Byrne’s interpersonal attraction paradigm to a consumer-brand setting. Whereas Byrne manipulated self-other similarity by varying the extent to which the parties expressed like attitudes toward a variety of topics, we assessed self-brand similarity by measuring these attitudes. Furthermore, whereas Byrne manipulated others’ attitudes toward the self by supplying contrived responses to an interpersonal judgment scale, we measured both participants’ liking for the target brand and the felt reciprocal liking of the brand for the participant. The details of our survey methodology are described below.

In the first part of the survey, participants were asked to indicate their attitudes toward several topics (e.g., musical tastes; Byrne, 1971). After several unrelated filler tasks, participants then took part in the second part of the survey which assessed their relationship with Chevrolet, an automotive brand we anticipated would elicit varied similarity and feeling

reciprocation assessments. First, we asked participants to imagine Chevrolet as a person (Aaker, 1997) and to write a brief description of that person. Next, they were asked to project the brand's attitudes toward the same topics assessed earlier. Self-brand attitude discrepancies that fell within one standard deviation were considered similar attitudes, the sum of which comprised our self-brand similarity index. We then elicited participants' liking for the brand as a person and the felt reciprocal liking of the brand for the participant (Byrne 1961, 1971). The difference between these ratings was used as our measure of self-brand reciprocation, with higher scores representing over-reciprocation by the participant and lower scores representing over-reciprocation by the brand. Finally, we assessed participants' connection with the brand (Moore & Homer, 2008), self-brand overlap (Aron, Aron, & Smollan, 1992), and their overall opinion of the brand (four 7-point semantic differentials)—dependent measures selected to capture brand relationship closeness.

Regression analyses were conducted in which each of the dependent measures was regressed on self-brand similarity, self-brand reciprocation, and the product of the two ($N = 55$). Results revealed the predicted main effect of similarity. For all three measures of brand relationship closeness, participants expressed a stronger connection to ($p < .01$), a greater overlap with ($p < .01$), and a more favorable opinion of Chevrolet ($p < .001$) when they felt they shared attitudes with the brand. Results also revealed the predicted interaction between self-brand similarity and feeling reciprocation for two of the three dependent variables (self-brand overlap, $p = .05$; brand attitude, $p = .04$). To explore the nature of this interaction, we conducted a 2×2 between-participants ANOVA, separating those above and below the median for both independent variables. As predicted, there was a positive relationship between self-brand similarity and brand relationship closeness that held only when the brand is perceived to equally- or under-reciprocate affection.

These findings have several implications for consumer research. First, they prompt a reappraisal of our understanding of brands from a purely cognitive perspective, where brand equity is a product of brand association and valance (Keller, 1993). Our findings suggest that brand liking is the product of a complex parasocial interplay that requires both projection of attitudes and reciprocated liking, at least for high-involvement products such as automobiles. Secondly, our work further specifies the nature of the consumer-brand relationship explored in previous research. We find that similarity of attitudes between the consumer and the brand is one important component of the brand relationship. However, we also find that consumers consider the extent to which their feelings toward the brand are reciprocated. In particular, our findings suggest that self-brand similarity exerts a positive influence on brand relationship closeness, but only when consumers feel that the brand does not like them more than they like the brand. In other words, when consumers feel that the brand over-reciprocates their affections, it seems they are “turned off,” thereby nullifying the effect of self-brand similarity on relationship closeness. In contrast, when consumers feel that the brand equally or even under-reciprocates their affections, our results suggest they are “turned on,” in which case self-brand similarity comes into play. Therefore, when it comes to brand relationships, it is not necessarily the case that consumers and brands of a feather flock together. Consumers must also feel that the brand is a catch, and that a relationship with that brand is not easy to come by.

Aaker, J. L. (1997). Dimensions of brand personality. *Journal of Marketing Research*, 24, 347–356.

Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of other in the self scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology*, 63, 596–612.

Byrne, D. (1961). Interpersonal attraction and attitude similarity. *Journal of Abnormal and Social Psychology*, 62, 713–715.

Byrne, D. (1971). *The attraction paradigm*. New York: Academic Press.

Eastwick P, W., Finkel, E. J., Mochon, D., & Ariely, D. (2007). Selective versus unselective romantic desire. *Psychological Science*, 18, 317–319.

Fournier, S. (1998). Consumers and their brands: Developing relationship theory in consumer research. *Journal of Consumer Research*, 24, 343–373.

Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57, 1–22.

Moore, D. J., & Homer, P. M. (2008). Self-brand connections: The role of attitude strength and autobiographical memory primes. *Journal of Business Research*, 61, 707–714.

Temporal Sequences, Consumer Judgment, and Choice

Chair: Eric Dolansky, Brock University, Canada

Price Sequences, Variability, and Choice

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Individuals tend to be risk-averse (Bernoulli 1738/1954); we see this in consumers' willingness to pay for certain outcomes (e.g. a preference for a fixed-rate rather than variable-rate loan). This paper concerns the effect of price sequences on choice. A price sequence has been defined as an observed series of prices across time used in a purchase decision. With increasing changes in the methods used to present prices to consumers, such as dynamic pricing systems, sequences or series of prices have become more commonplace.

Incorporating past prices into present decisions has been within the domain of reference price, wherein all past price information is condensed into a single price. This view has incorporated neither the effect of a price sequence's variance nor uncertainty about future prices. In contrast, our interests focus on this variability. The expectation is that increasing perceived variability will lead to a sequence becoming a less favourable option; thus trend, mean or reference price are less important in the decision.

When it comes to choosing a vendor based on the historical sequence of prices, the mean and trend of the sequence (i.e., are prices increasing, decreasing, or flat) are of obvious importance. However, previous research has demonstrated that in situations that entail risk, people tend to prefer to avoid or reduce ambiguity (Camerer and Weber 1992). Ambiguity is defined as having incomplete information about the probabilities of different outcomes (Gardenfors and Sahlin 1982). It is well established that both humans and lower animals rely on their perceptions of variance to evaluate the risk associated with making choices (e.g., Caraco 1980; Markowitz 1959). The more a buyer can rely on past prices to predict future prices it becomes easier to evaluate the price risk associated with a particular vendor, as the variance of an historical sequence decreases.

Danziger and Segev (2006) demonstrated that both expected future price and evaluation of a target price (set at the mean of the observed sequence) were affected by the trend of the sequence viewed. Internal reference price (IRP) research tends to align with either adaptation-level theory (Helson 1964) which postulates that consumers re-evaluate their IRP each time they use it or recall it to incorporate new information, or range-frequency theory which claims that when consumers are confronted with prices, they evaluate where the prices place within a range (Volkman 1951; Parducci 1965). Neither theorization of IRP allows for the effects of price sequences themselves. Adaptation-level adjustment incorporates primarily the past few prices, and range-frequency theory does not allow for the temporal component.

Existing research on sequences (e.g. Loewenstein and Prelec 1993) tends to focus on the mean and trend of the sequence, but not the variability. What has generally been found is there exists "negative time preference" (Loewenstein and Prelec 1991); with regard to most sequences individuals would prefer the positive events at the end. The prediction to be drawn from this is that a zero-slope sequence of prices would be favoured over a sequence of ascending prices, as the ascending price profile does not conform to negative time preference.

Study one involved selecting between a vendor offering prices in a random, zero-slope pattern and another offering prices with a discernable trend (with order counterbalanced). The key finding from study one is that 67.8% of respondents opted for the ascending or descending series as opposed to the random sequence ($p < .001$). There also exists a significant order effect: when the random sequence was viewed first, it was more than twice as likely to be selected as when it was viewed second ($p = .011$).

In order to discover the ways in which perception may differ from strict reality, and to ensure that memory of the sequences was not driving the results, study two was undertaken, wherein participants were asked to recall and map out the prices they had seen in two different ways. In general, it was found that participants could report back, both numerically and graphically, the descriptive statistics of the sequences and their trends. While respondents were accurate in the mathematical variance expressed through the graphs, the perceived variance was very different. There were

significant differences ($p < .05$) between all three focal series in terms of variability ratings (perceived variance). This indicates that what individuals think of as variance is quite different from mathematical variance. Study two also served as a successful replication of study one.

Study three was conducted because the sequence of prices used as stimulus for the random condition in study one ended on a high price, which may have driven some of the results. As this was a successful replication of study one, it was concluded that the ending price was not causing the low choice share for the random sequence.

Because the mean of the ascending sequence had been lower than that of the zero-slope sequence throughout the first three studies, study four offered a choice between the two while holding the means and peaks of the two sequences equal. What is found is that the ascending sequence is still preferred even when it has the same mean and peak as the zero-slope sequence. In one condition the ascending sequence maintains the same choice share despite having a mean price that is 67% higher than previous. In study four participants were also asked to predict future prices for the sequences, and they predicted significantly higher prices for the ascending sequence than for the zero-slope sequence ($p < 0.001$). The predictions also exhibited the same patterns as the sequences upon which they were based. Therefore, respondents chose a vendor that they themselves expected to charge higher prices, because the past prices were perceived as less variable. These findings indicate that price sequences matter in choice, and specifically that the perceived variability of these sequences has an effect. In essence, the study participants preferred a higher price option that was viewed as more stable. These surprising and counter-intuitive results open up a new research stream that will have an effect on how we examine pricing.

Temporal Reframing of Prices: The Effect of Expense Type

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Temporal reframing of a price (TRP) from a one-time expense to a series of small, recurring expenses is used by magazine publishers, retailers, social welfare institutions, and others, to boost their sales and to attract more customers. In this paper, we explore the effect of TRP on 'offer attractiveness' across a variety of products and expense types.

Conceptual Framework: Gourville (1998) proposed a two-step model to explain the effect of TRP. In the first step, comparison retrieval, when consumers are faced with a transaction, they will retrieve a category of comparable expenses to use as a standard of comparison. In the case of TRP, the categories retrieved for comparison are small, ongoing expenses categories. In step two, transaction evaluation, the target transaction is evaluated in the context of the retrieved category, small, peanut, or daily expenses, which tend to have loose budget constraints (Markowitz, 1952).

When consumers budget their expenses, they go through a two-stage expense tracking process. First, expenses must be noticed and then assigned to their corresponding accounts. An expense is assigned to an account based on its features, magnitude, format, or location similarity (Heath and Soll 1996). Prototypical expenses are more likely to be assigned to their corresponding accounts and will affect budgets much more than less-typical expenses; moreover, prototypical expenses will be most subject to budgeting constraints (Heath and Soll, 1996).

If temporal reframing is applied to an expense that, by its nature, is recurring, consumers are more likely to perceive it as a representative of its category and thus will be subject to 'rigors of budgeting' (Heath and Soll 1996). On the other hand, non-recurring expenses that are temporally reframed are going to be: less representative of their category, less effective on budgets than typical members, and will be subject to fewer constraints.

H1: TRP will be more effective on 'offer attractiveness' in a non-recurring expense context than in a recurring expense context.

Like Gourville (1998) we expect that TRP can only be effective when the recurring amounts are small enough to be considered daily recurring expenses.

H2: At relatively high amounts, TRP is ineffective in both recurring and non-recurring expense contexts.

Methodology: To test our hypotheses a computer-based experiment was conducted.

Pretest: Two different products (Laptop, Health Club) and two different donation requests (United Way, Life-saving donation) were pretested to ensure that each item will reflect the intended expense type.

Stimuli and Design: Students were told that their company sometimes sends them employee-special retail offers, or donation requests, in its monthly newsletter and that their purchases are to be pro-rated and automatically deducted from their monthly salaries.

After the instructions, respondents were presented with one of the eight offers that were manipulated in a 2x2x2x2 between subjects design. The first factor was product type where the laptop and the health club represented the product category while the United Way donation and the Life-saving Surgery donation represented charity. The second factor was the expense types and the life-saving surgery and the laptop represented the non-recurring expenses category, and the health club and United Way donation represented the recurring expenses category, as per our pre-test. The third factor was the temporal framing of the offer: the subjects saw either a TRP offer or an aggregate-framed offer. Finally, the fourth factor was the dollar amount of the offer seen: \$1/\$365 for the low price level and \$5/\$1825 for the high price level. Respondents were asked “How attractive (or unattractive) is the price of this ‘product’ [donation pledge]?” a 9-point scale with “Very very unattractive” and “Very very attractive” as anchors, 1 and 9 respectively.

Results: A between-subjects ANOVA was performed to assess the effects of our manipulations on price/pledge attractiveness. The results showed a significant Frame x Price x Expense Type interaction ($F = 6.957, p = .009$). As proposed, in the recurring expense context, at low price levels the mean attractiveness was higher in the aggregate condition than in the TRP condition, $MPAD = 4.112$ vs. $MA_{Aggregate} = 5.239$ and a planned comparison showed this difference to be significant ($F = 5.754, p = .017$). In the non-recurring expense case, at low price levels the mean attractiveness was higher in the TRP condition than in the aggregate condition, $MPAD = 5.328$ vs. $MA_{Aggregate} = 4.344$ and a planned comparison showed this difference to be marginally significant ($F = 3.492, p = .060$) as well; and comparing the attractiveness means for recurring versus non-recurring expenses in the TRP condition ($MPAD_{non-recurring} = 5.328$ vs. $MPAD_{recurring} = 4.112$) shows that the difference to be significant ($F = 5.816, p < .016$), thus fully supporting our first hypothesis.

In the High Price level condition none of the attractiveness means were significantly different, which confirms our second hypothesis.

Conclusion: This study provides support to the moderating effect of expense type on TRP effectiveness. Consistent with our proposition, TRP increases the offer’s mean attractiveness in a non-recurring expense context, while having a reverse effect in a recurring expense context. This effect disappears at higher price levels.

On the basis of this present research we conclude that companies can influence consumer perceptions of attractiveness of an offer by temporally reframing the price of goods and services, only when the goods and services offered are by nature non-recurring expenses. In contrast, when the products or services offered are recurring by nature, firms should avoid this type of framing because it will have a reverse effect on consumers’ attractiveness ratings.

Causes of Anchoring in Sequential Judgments

Shane Frederick, Yale University

Daniel Mochon, Yale University*

Prior judgments commonly affect subsequent judgments. The interpretation of such effects has been an enduring source of controversy, since preceding judgments may affect the experience of subsequent stimuli or the response language adopted or both. For example, if prior consideration of a paper clip increases respondents’ tendency to describe a stapler as “heavy,” this could reflect a change in their subjective experience (the stapler actually “feels” heavier) or a change in their use of the response scale (the meaning of the label “heavy” changes). Both types of effects commonly occur. Prior exposure to bright lights will make a room subjectively darker, and the change in the experience is manifest in several ways, including bumping into things. However, one’s choice of the judgmental label is often sensitive to context in a way that is clearly not linked to one’s subjective experience. As Stevens (1958) notes, someone reading about a large mouse running up the trunk of a small elephant will not confuse the relative sizes of the two animals.

To separate representational effects from response scale effects, many have proposed using objective, externally anchored scales, such as pounds, inches, dollars, calories, etc. (e.g. Campbell, Lewis, & Hunt, 1958; Mussweiler, 2003). In such cases, the effects of prior stimuli on responses are typically attributed to changes in the mental representation of the target

stimulus, because the objective meaning of the response language is assumed to be independent of context. In this paper, we challenge this idea that objective scales are context free. We propose instead that many sequential effects -- including many of the effects documented in the vast literature on anchoring -- reflect response scale effects, even when judgments are rendered on supposedly objective scales. However, since the effects shown in previously used paradigms reflect, at least in part, changes to the subjective representation (Chapman & Johnson, 1999; Mussweiler & Strack, 1999), it is impossible to tease out concurrent response language effects. The existence of these can only be demonstrated in a paradigm that does not have such a confound. Thus in this paper we demonstrate anchoring in a novel paradigm that allows us to show the existence of pure response language effects when using objective scales.

Through a series of studies, we demonstrate anchoring effects in a context that commonly arises, but is not much explored -- when people render multiple judgments sequentially, where preceding stimuli and preceding responses serve as potential comparative standards, but are not denoted or intended as such. Our paradigmatic example involves the estimate of a giraffe's weight (in pounds) following the prior judgment of a raccoon's weight. In this case, the prior judgment is available as a comparative standard, but the comparison is neither explicitly requested, nor even strongly suggested. Study 1 demonstrates that merely asking participants to generate estimates of smaller objects (e.g. a raccoon's weight) prior target judgments (e.g. a giraffe's weight) significantly lower the estimates of the targets, establishing this novel form of anchoring. Studies 2 and 3 explore the boundary conditions of this effect. In Study 2 we demonstrate that the presence of smaller numbers or smaller objects per se is not sufficient to generate this effect. This form of anchoring will only occur when previous questions involve numeric judgments along the same dimension. In study 3 we show that it is not sufficient for the judgments to be along the same dimension, but rather the anchor stimuli must be conceptually related to the target to generate the effect. Asking about the weight of any small object (e.g. a tricycle), will not result in anchoring of the target judgment of a giraffe's weight.

Having established the existence and boundary conditions of this novel anchoring effect, in Studies 4 and 5 we demonstrate that these effects are due to changes in the use of objective response scales (e.g. pounds) and not to shifts in people's actual subjective representation of the judged object. In study 4 we adopt a method proposed by Upshaw (1978) to distinguish between these two mechanisms. If the anchors are affecting the respondents' subjective representation of the target, then other measures of the target's magnitude should also be influenced. If, however, anchoring is caused by a shift in the use of a particular response language, and not by a change of the subjective representation, then judgments rendered on other dimensions or in different units should not be affected by the presence or absence of the anchoring stimuli. The results of this study show that while estimates of the weight of smaller animals affect estimates of the weight of a giraffe when measured in the same units (pounds), they do not affect estimates of mass rendered in other units.

In study 5 we provide further evidence for our theory that these anchoring effects are caused by a shift in meaning to the objective response scale. If this theory is correct, it implies that if the ordinary task were inverted (if respondents were provided with the desired numeric response and asked to select the corresponding stimulus), the prior small anchor questions would increase rather than decrease, the magnitude of the selected stimulus. For example, if respondents were asked to generate an exemplar of an animal that weighs 1000 pounds, those who were first asked to judge the weight of a much smaller animal (like a raccoon or wolf) should select larger exemplars -- because 1000 pounds now connotes a larger thing. The results of study 5 confirm this prediction.

In summary, through a series of studies we first establish the existence of a new form of anchoring, one which arises commonly: when judgments are rendered sequentially, without the explicit request for a comparison to a provided standard. We then propose a new theory of anchoring, whereby anchors affect the objective response language, rather than the internal representation, as suggested by previous research. These findings deepen the challenges for interpreting the meaning of responses, by reviving the distinction between representational effects and response scale effects in a place where the distinction formerly seemed especially secure.

Campbell, D. T., Lewis, N. A., & Hunt, W. A. (1958). Context effects with judgmental language that is absolute, extensive, and extra-experimentally anchored. *Journal of Experimental Psychology.*, 55(3), 220-228.

Chapman, G. B., & Johnson, E. J. (1999). Anchoring, activation, and the construction of values. *Organizational Behavior and Human Decision Processes.*, 79(2), 115-153.

- Mussweiler, T. (2003). Comparison processes in social judgment: mechanisms and consequences. *Psychological Review*, 110(3), 472-489.
- Mussweiler, T., & Strack, F. (1999). Hypothesis-consistent testing and semantic priming in the anchoring paradigm: A selective accessibility model. *Journal of Experimental Social Psychology*, 35(2), 136-164.
- Stevens, S. S. (1958). Adaptation-level vs. the relativity of judgment. *The American Journal of Psychology*, 71(4), 633-646.
- Upshaw, H. S. (1978). Social influence on attitudes and on anchoring of congeneric attitude scales. *Journal of Experimental Social Psychology*, 14, 327-339.

Psycholinguistics and Consumer Behavior

Chair: Yulia Komarova, University of South Carolina

Discussion Leader: Laura Peracchio, University of Wisconsin, Milwaukee

Symposium Overview

The purpose of this proposed symposium is to provide an avenue for the presentation of and discussion of psycholinguistics research in consumer behavior. Psycholinguistics addresses the production, comprehension, use, and development of language. Specifically, any language is assumed to possess four components: *phonology*, which characterizes vocal sounds and the letters representing them, *orthography*, which is related to the spelling of words, *morphology*, which pertains to parts of the words, and *semantics*, which reflects connotation and meaning of words (Lowrey, Shrum, & Dubitsky, 2003). Both written and spoken language have the potential to systematically influence information processing and, therefore, to impact consumer preferences, choice, and behavior. Nevertheless, relatively little research has explored the way in which characteristics of words and languages impact consumer behavior (with a few notable exceptions: e.g., Lowrey, Shrum, & Dubitsky, 2003; Luna & Peracchio, 2001; Yorkston & de Mello, 2005). The four papers to be presented address three out of four of the primary language components (morphology, semantics, and phonology). The first paper investigates the effects of congruence and incongruence between morphological and semantic linguistic devices on brand evaluations, recognition, and behavioral intentions in the context of the Russian language. The second and third papers utilize another formal gender language system, Spanish, in conjunction with the semantic gender language system of English as a context for studying code-switching and bilingualism, respectively; the authors investigate the effects of congruence and incongruence between contextual and semantic linguistic features on processing fluency and its consequences. The fourth paper focuses on phonology by examining the effects of accents in persuasive communications.

The research to be presented thus reveals important effects of various aspects of language processing on consumer expectations for product/service performance, attitudes towards and memory for products and brands, as well as behavioral intentions. As such, this symposium is hoped to have a broad appeal to a diverse range of conference attendees. We hope that the papers in this session, along with the discussion by Laura Peracchio (an accomplished scholar in both psycholinguistics and consumer behavior), will serve as an impetus for future research in this important domain.

The Role of Linguistic Gender Marking in Brand Recognition and Behavioral Intentions in the Formal Language System of Russian

Yuliya Komarova, University of South Carolina*

Rebecca Naylor, University of South Carolina

Learning new brand names is much like learning new words in a foreign language (Percy, Rossiter, & Elliot, 2001). Unsurprisingly, consumer researchers have been particularly interested in how the encoding of new brand names impacts subsequent brand evaluations and memory for brands (Lowrey, Shrum, & Dubitsky, 2003; Yorkston & de Mello, 2005). Many brand names from U.S.-based companies that are introduced into foreign markets lack semantic meaning to the consumers in those markets. Therefore, understanding how new brand names (without semantic meaning) are encoded and retrieved in language systems other than English is of great importance to consumer research. Semantic language systems such as English assign gender to words based on their definition, while in formal language systems such as Spanish or Russian, the gender of nouns depends not only on their definitions (semantic gender), but also on the grammatical structure of the word (formal gender). Therefore, a noun in formal gender languages may possess two congruent genders (when both formal and semantic genders are either masculine or feminine) or two incongruent genders (when formal and semantic genders differ). Yorkston and de Mello (2005) investigated the effect of (in)congruence between formal brand name gender and formal and semantic product genders on brand evaluations and brand recall in Spanish. The authors find that while congruency between formal brand name gender and formal product gender facilitates grammatical categorization (through enhanced processing fluency) and, consequently, recall, a match between formal brand name gender and semantic product gender leads to improved brand evaluations. Alternatively, the findings of

Lowrey et al. (2003) suggest that “semantic oppositeness” may also enhance memory for brand names as a consequence of deeper encoding (by way of enhanced attention). Thus, it remains unclear whether congruent formal gender marking of products and their brands in formal gender languages always leads to improved brand memory. The present research attempts to resolve this ambiguity in the context of another formal gender language system, Russian.

In Study 1 we expected to find the same positive effect of congruency between formal brand name gender and semantic product gender on product evaluations that was found in Spanish. More specifically, we also predicted that congruency of semantic product gender and Russian formal brand name gender will lead to enhanced brand liking and purchase intentions toward a brand. One hundred ninety-six students from Russian universities participated in this study for extra credit. Four bogus word roots were used as four formally masculine brand names (molen, livar, merol, and tarun) while four formally feminine brand names were created by adding an “-a” ending to the four roots. The resulting brand names were combined with four products (all household appliances) so that formal brand name gender was a between-subjects factor. Each participant evaluated four product-brand combinations with *iron* (a semantically feminine product) as the focal product. As predicted, two one-factor ANOVAs with formal brand name gender as a between-subjects factor and brand liking and purchase intentions as dependent variables revealed that a match (vs. a mismatch) between semantic product gender and brand name formal gender (i.e., when iron was paired with a feminine brand name vs. a masculine brand name) leads to enhanced product liking ($M_{match} = 3.68$ vs. $M_{mismatch} = 3.26$) ($F(1,195) = 3.64, p = .05$) and higher purchase intentions for the brand ($M_{match} = 3.58$ vs. $M_{mismatch} = 2.97$) ($F(1,195) = 7.68, p = .01$). Furthermore, mediation analysis using the Sobel test revealed that the relationship between semantic product and formal brand name gender and purchase intentions was mediated by brand liking ($\beta_{without\ mediator} = .30, p < .05$; $\beta_{with\ mediator} = .16, p = .05$).

Study 2 was designed to explore the impact of gender (in)congruence on memory for brand names. Semantic inconsistencies and unique word spellings have been shown to lead to deeper processing (Muter, 1984), which researchers have suggested enhances recognition (Tversky, 1973). We propose that while recall is facilitated by formal gender congruency between a brand name and a product (as demonstrated by Yorkston and de Mello (2005)), recognition is enhanced by incongruence between formal brand name gender and semantic product gender. To test our hypothesis, we included two focal products in Study 2 - *iron* (masculine formal and feminine semantic gender) and *stove* (feminine formal and semantic gender). We expected better recognition of product-brand pairs when both iron and stove are combined with masculine brand names. Students from a Russian university first saw four brand-product combinations and then completed a short filler task, before being provided with a list of 32 product-brand pairs (all possible combinations of four products and eight brand names) and asked to mark the pairs that they had previously encountered. Responses were coded as either correct or incorrect, and tests of proportions of correctly recognized pairs were conducted for both products. Our results show that, as expected, the number of correctly recognized product-brand pairs was significantly higher when both iron and stove were combined with formally masculine brand names (both $Zs = -1.7, p < .10$). These results provide support for our hypothesis that gender incongruence leads to deeper encoding of information and enhanced recognition.

The Impact of Medium Language on Code-Switched Advertising

Melissa Bishop, University of New Hampshire

Adriana Boveda-Lambie, University of Rhode Island*

Language code-switching (CS), using two or more languages in the same conversation (Myers-Scotton, 1988), is gaining attention among marketing academics and practitioners. Based on language schema activation theories, previous research examined the effect of CS direction in product evaluations and persuasion (Luna & Peracchio, 2005a, b), finding that one word switches from Spanish to English led to higher evaluations than English to Spanish switches. However, how the main language of the media vehicle in which a code-switched ad is inserted may influence overall ad evaluation has not been experimentally examined. The direction of CS may interact with the medium language to impact message processing difficulty, with increased language processing difficulty, in turn, influencing advertiser evaluation. Thus, our paper examines how medium language interacts with direction of CS to influence consumer ad evaluation as well as expectation formation of the advertised service provider.

Message processing theories. The matrix (main) language never changes in normal CS conversations (Finlayson, Calteaux, & Myers-Scotton, 1998). Per the Matrix Language Frame Model (MLF), language mixing is orderly, with one language consistently serving as the grammatical frame for each conversation (Finlayson, Calteaux, & Myers-Scotton, 1998); one matrix language (ML) composes the frame and the others contribute content morphemes (e.g., nouns and verbs). How bilinguals store languages and activate/deactivate them when processing bilingual conversations may explain why the ML remains unchanged. Believed to store known languages separately (Spivey & Marian, 1999), bilinguals have an “input switch,” which deactivates one lexicon while using another (Macnamara & Kushnir, 1971). Thus, changing from one ML to another requires complete deactivation of one lexicon, resulting in increased processing demands.

However, when one ML is used in communication with only brief switches to a secondary (embedded) language, complete deactivation may not be required. Spivey and Marian (1999) argue that brief switches (CS) do not require deactivation of the ML for message processing. Rather, only partial activation of the embedded language occurs, resulting in easier language processing. As proposed in Speech Accommodation Theory, easier processing results in greater accommodation perceptions by the message receiver (Giles, Taylor & Bourhis, 1973). Research suggests that easily processed messages benefit from increased positive affective evaluations. Goode (2007) argues that influencing implicit memory of an ad increases perceived ad familiarity, leading to more positive emotional consumer responses. Furthermore, more difficult processing can result in less favorable evaluations of the message sender (Koslow et. al, 1994). In CS advertising, more difficult language processing occurs when the medium language is English (*Spanish*) and the ad is written mostly in Spanish (*English*) with brief switches to English (*Spanish*). This combination requires sequential activation of (1) the ML during exposure to the medium language, (2) the ad’s ML in which the ad is primarily written, and, finally, (3) reactivation of the medium ML. The ML of the communication event has effectively changed three times (English to Spanish to English). This scenario increases message processing demands. Conversely, an ad’s ML congruency with the medium language enables easier overall language processing, leading to more favorable ad evaluations. This occurs when the medium language is English (*Spanish*) and the ad is written primarily in English (*Spanish*) with brief switches to Spanish (*English*). Study 1 tests these hypotheses.

Method and results. Mexican-Americans (122) fluent in English (*E*) and Spanish (*S*) were randomly exposed to a cell phone service provider advertisement. Two factors were manipulated in a between-subjects experiment: medium language (English/Spanish) and ad ML (*E-to-S CS/S-to-E CS*). Medium language was manipulated by placing the ad between two short articles written in either English or Spanish. Participants answered questions about the article and the ad, including responsiveness, empathy, and assurance expectations measures for the service provider (Parasuraman, Zeithaml, & Berry, 1988) and a general attitude toward the ad measure.

MANCOVA revealed a significant effect of matrix and ad language congruency ($F_{(4,116)} = 3.53, p = .009, \eta^2 = .11$) on empathy, responsiveness, assurance of the provider expectations and attitude toward the ad. Attitude toward CS was a significant covariate ($F_{(4,116)} = 16.01, p = .000, \eta^2 = .36$). Follow-up ANCOVA’s showed that medium language and the ad’s ML congruency resulted in significantly higher service provider expectations for empathy ($(F_{(1,119)} = 10.21, p = .002)$, responsiveness ($F_{(1,119)} = 6.86, p = .010$) and assurance ($F_{(1,119)} = 7.46, p = .007$) than when the medium language did not match the ad’s ML. Similarly, overall attitudes toward the ad ($F_{(1,119)} = 7.47, p = .007$) were significantly higher in congruency conditions. These results support our hypothesis that medium language interacts with a code-switched ad’s matrix language to moderate a bilingual’s ease of CS processing. Under conditions of more facile (difficult) cognitive processing, overall evaluations of the advertised service provider were higher (lower). Further, these results build on Luna and Peracchio’s (2005a) CS direction work regarding language schema effects on product evaluation by taking the language context in which a code-switched ad is inserted into account.

The Influence of Language Domains in Advertising

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David Luna, City University of New York

Despite the increased use of the Spanish language in advertising, consumer research has not fully explored the impact that the Spanish language can have on message processing. Surprisingly, much of past research in marketing communications

has focused on a single language or on monolinguals and how they process information (Usunier, 1996), generally ignoring bilingual consumers. This leaves many unanswered questions about how to effectively communicate to this growing multilingual community. One question that is of particular interest in our research is: Under what circumstances should advertisements be translated to the targeted Hispanic bilingual population's native language of Spanish? Recent research has shown that the choice of language in advertising to bilinguals influences the types of thoughts they have in response to an advertisement (Noriega and Blair 2008). Using the established sociolinguistic platform of Koslow et al. (1994) and psycholinguistic platform of Luna and Peracchio (2001), the focus of this paper is to demonstrate that choice of language is relevant to bilingual's advertising evaluations and we uncover the underlying process that is driving these results. We suggest that the effect of matching ad content to the concepts made accessible by the ad's language can lead to higher evaluations of the advertisement.

The hypothesis of the first empirical study is that when ad language is congruent with the everyday language of a topic area, the ad evaluation is higher than when ad language is incongruent with the everyday language of a topic area. This study had a 2 (language: Spanish or English) x 2 (Topic area: Work (W) or Friends and Family (FF)) between-subject design. Ad evaluations were collected on a seven-point scale, where higher scores meant more favorable evaluations. The ad evaluation index yielded a two-way interaction between Language and Topic area, $F(1, 52) = 11.889, p < .01$. These results confirm our expectations that when advertisements focused on the topic Friends and Family, the Spanish language ads were evaluated higher than the same ads in English (FF ad, Spanish, $M = 4.647$ vs. FF ad, English, $M = 3.769, F(1, 26) = 6.775, p < .05$). Also, confirming expectations, when the topic area of Work was used, the English language ads were evaluated higher than the same advertisement in Spanish (W ad, English, $M = 5.207$ vs. W ad, Spanish, $M = 4.659, F(1, 26) = 4.945, p < .05$).

The second empirical study shows the impact of accessibility of words in a particular language. A mixed design between-subject experiment was conducted in which one factor was manipulated: congruency of language with topic area. The two-sample t-test revealed a significant main effect for language in the congruent vs. incongruent domains (Congruent Language Topic Area $M = 628.32$ vs. Incongruent Language Topic Area $M = 743.42, t(28) = -3.247, p < .01$). When a word is shown in a minority language and the word belongs to the minority's everyday language topic area, the word is recognized faster than the same word shown in the majority language (Friends and Family words, minority language, $M = 622.42$ vs. Friends and Family words, majority language, $M = 680.73, t(28) = -2.239, p < .05$). Also, confirming expectations, when a word is shown in the majority language, and the word belongs to the majority's everyday language topic area, the word is recognized faster than the same word shown in the minority language (Work words, majority language, $M = 634.23$ vs. Work words, minority language, $M = 806.12, t(28) = -2.654, p < .05$). With the word frequency and length both accounted for, the indications of this study are that, indeed, the minority (majority) language topic areas are more accessible in the minority (majority) language. These results shed some light on the process driving our results from study 1.

Our research extends recent work on the influence of language on bilinguals' cognitive processes. Each of a bilinguals' languages has access to different cognitive structures, so when a bilingual consumer processes in one language, the structures associated with that language are activated. We show the evaluative implications of this phenomenon.

You're Not from Around Here, Are You? The Role of Spokesperson Accent in Message Processing

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Maura Scott, University of Kentucky

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“I will buy any crème, cosmetic, or elixir from a woman with a European accent.” –*Erma Bombeck*

Companies often utilize different accents in their communications, and accents typically represent a strategic choice. Technology firms must decide the appropriate accent for technology that contains a 'voice' such as GPS systems for vehicles, as well as on the voices of automated voice response systems and self-service technologies. Firms also make the strategic decision to use an accented spokesperson in advertisements. For example, in the GEICO commercials currently running on radio and television, the GEICO Gecko speaks with a British accent. Similarly, Orbit chewing gum ads feature

a female spokesperson who asks consumers if they have a “Dirty Mouth,” using her British accent. Does this matter? Do consumers like, prefer, understand, and retain information from one accent over another? Would consumers’ perceptions of GEICO or Orbit be different if, instead of a British accent, the messages were delivered using a German, Brooklyn, or Southern accent? Through a series of studies, we find evidence that accent choice does matter. Our results indicate that a spokesperson accent can have significant effects on how consumers perceive products and services, how consumers process and respond to persuasion appeals, as well as what consumers remember; these insights ultimately influence product evaluations and purchase intentions. Though Erma Bombeck may accurately predict her favorable impression of the crèmes, cosmetics, and elixirs presented with a European accent, we demonstrate that, this favorable attitude may *not* translate to effective recall of the brand name and ultimately may not translate to purchase behavior.

Our theoretical model explains why consumers develop different associations with varying accents, predicts when these accent associations transfer to products presented by accented spokespeople, and explains how these associations relate to brand and information recall. The strategic decision to leverage an accent when communicating to consumers is a complex one. Marketing managers must consider factors including consumers’ liking of and preference for the accent, the positioning of the product being presented, consumers’ comprehension of the accent, and consumers’ retention of the key messages being communicated.

In study 1 we identify relevant cultural stereotypes and specific associations relating to British people and people from the Deep South, and demonstrate that people have distinct favorable impressions of both standard and non-standard accents. Study 2 demonstrates that having a spokesperson with a British accent results in the focal product being preferred, even though both the Southern and British accents trigger distinct, favorable associations. Specifically, we find that, counter to findings in the existing personal selling literature, consumers develop distinct, favorable personality associations with accents. Consumers prefer products associated with standard accents, even when those accents are foreign. Furthermore, study 2 explores the extent to which ignoring the accent influences perceptions of a focal offering.

The literature on accent, processing, and memory provides insight into message content recall, including brand name recall. On the one hand, accents can consume additional processing resources; for example, the Spanish accent adds 100-150 ms. of additional processing time for individuals who do not have a Spanish accent (Clark & Garrett, 2004), however, additional studies have shown this processing difference tends to disappear after less than one minute of exposure. On the other hand, there is a “voice effect,” such that a more familiar accent is more effectively retained over time (Bottruell & Johnson, 1985). In fact, students tend to perform better on tasks when the instructor’s accent was familiar compared to when the instructor had a foreign accent (Mayer, Sobko, & Mautone, 2003). Hence, a relatively more familiar accent should cause the message to be better retained over time, which could impact longer-term favorability, even if that accent is not perceived as more favorable immediately.

In Studies 3, 4, and 5, we delve further into the drivers of the processing of accents. and especially when the spokesperson accent and the product attributes are congruent. However, despite their preference for such products, consumers experience difficulty with brand recall of offerings associated with foreign accents. In study 3, we empirically test the role of congruency between product category and accent on perception of the product; specifically, we study different types of hotels and how they align with accent associations. Furthermore, study 3 further explores the process by incorporating recall of the brand name as a dependent variable. Study 4 examines the process by which consumers perceive and respond to varying accents under different levels of cognitive capacity. Study 5 further explores the process of accent influence and information recall using a comprehensive exam manipulation.

These studies demonstrate that despite the favorable influence British accents can have on evaluations of an offering or argument, the British accent hinders recall of key information such as persuasive arguments or brand names. In other words, consumers may be more persuaded by the British accent, but they are unable to remember the arguments that persuaded them. As such, the long-term effectiveness of using British accents in persuasion appeals is highly questionable.

These findings can help managers make more informed choices about how to effectively use accents in their marketing strategies and tactics. Choosing the accent of the speaker is not as simple as matching the speaker to the target audience. In contrast to the personal selling literature, foreign accents do not always detract from marketing efforts. As companies compete in a multicultural world with increasingly diverse workforces, a company’s management and spokespeople will

possess a broad range of accents from which to choose. Choosing appropriate accents throughout all marketing communications is important and utilizing standard accents can yield positive effects across countries and cultures. The positive evaluation of standard accents across countries is a useful global tool for multinationals with multinational campaigns and international product websites.

Bottriel, Wendy J. and F. N. Johnson (1985), "Effect of a Speaker's Accent on the Listener's Memory for Verbal Material," *IRCS Medical Science: Psychology and Psychiatry*, 13 (11-12), 1048.

Clark, Constance M. and Merrill F. Garrett, (2004) "Rapid Adaptation to Foreign-Accented English," *Journal of the Acoustical Society of America*, 116 (6), 3647-58.

Mayer, Richard E. Kristina Sobko, and Patricia D. Mautone (2003) "Social Cues in Multimedia Learning: Role of Speaker's Voice," *Journal of Educational Psychology*, 95 (2), 419-25.

Moral Violations and Tradeoffs

Chair: A. Peter McGraw, University of Colorado, Boulder

Commercial Marketing Strategies and Communal Sentiments: Legitimizing Taboo Trade-offs in Religious Marketing

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While consumers typically expect businesses to profit from the marketing of goods and services, they believe that some organizations should be more focused on accomplishing communal goals than making a profit. When communally-focused organizations do use commercial marketing strategies, consumers react as though a taboo has been breached. For example, consumers find it morally distressing to see churches using steadfast commercial-marketing strategies like advertising, rebranding, and outsourcing (e.g., McDaniel 1996). When consumers identify marketing strategies that appear inconsistent with communal goals they can react as though a taboo has been breached (Tetlock, 2002). People will respond with a shifting mix of moral outrage (condemn the perpetrators) and moral cleansing (distance oneself from the transgressors; Tetlock et al., 2000; McGraw, Tetlock, & Kristel 2003). This creates negative consequences for the organization; people stop using services or they spread negative word-of-mouth.

We investigate the ability of organizations to conceal or assuage taboo trade-offs. As a case study, we examine people's reactions to the use of marketing techniques by religious organizations.

Churches compete with the secular world for the allegiance of worshipers. There are many ways to spend a Sunday morning, and churches are increasingly resorting to the same marketing techniques that corporations use to recruit, retain, and serve customers (e.g., Schlesinger and Mellado 1991, Symonds 2005). But not everyone finds these techniques acceptable. For example, some are horrified that churches attract youth into congregations with violent video games (Richtel 2007).

The project draws on work by McGraw and Tetlock (2005) that examines how rhetorical redefinitions (i.e., relational framing) change the perceived normative 'rules' at work for a strategy in order to assuage the unsettling nature of a taboo trade-off. We test the effectiveness of organizational justifications that reframe market interventions to have a communal focused (i.e., priorities and offerings based on cooperative and relationship-building principles; see Fiske 1991). If marketing techniques are rhetorically disguised through communal-focused endeavors, the church gets both market efficiency and loyalty. But if rhetorical disguises fail, market-based techniques may compromise the moral branding and sanctity of the church.

In Study 1a, we presented participants twelve marketing strategies that an organization was considering using to better recruit, retain, and serve its members. The strategies were pretested to vary along a continuum from communally-focused (e.g., provide child care for members) to market-focused (e.g., institute a rebranding strategy). We find that neither communal nor market focused strategies affected the judged acceptability of the marketing strategies used by a credit union, a secular market-driven organization. For a religious organization, however, judgments of acceptability were strongly influenced by the focus of the strategy. As the strategy became more communally focused as opposed to market

focused the strategy was viewed as increasingly more acceptable. The interaction of organization and strategy demonstrates the distress created when an organization built on communal principles initiates market-based strategies. In Study 1b, we show that negative reactions to commercial marketing techniques by a church mediate people's desire to affiliate with the organization.

Study 2 investigated the effect of presenting communal-sharing justifications for market interventions conducted by a church. We found that distress with the Catholic Church's practice of outsourcing prayers to India due to a shortage of U.S. Priests was mitigated by invoking the shared world-wide communality of Priests, a justification that emphasizes the communal nature of the church across national boundaries. Reported distress in a market-pricing justification condition ("matching supply and demand in the market for prayer service, and thus maximizing prayers and revenue generation") was no different than that of a control condition that featured no justification, which indicated that respondents spontaneously assumed and rebuffed the market-based intervention of the church.

Study 2 also investigated who is most affected by communal justifications. We hypothesized that those who have the greatest moral stake in the organization (i.e., those who are most threatened by taboo trade-offs) would be most motivated to seize on the communal justification and thus show the greatest reduction in distress. We found that people who most regularly attend religious services (i.e., the "churched") were most persuaded by reframing the relationship between priests.

In a follow-up study, we demonstrate that moral outrage with outsourcing prayer was linked to physical contamination. To do so, we drew on the Lady Macbeth effect, whereby people feel physically tainted by morally upsetting information and seek physical cleansing opportunities to symbolically cleanse themselves (Zhong and Liljenquist 2006). For example, after having hand copied a scenario involving an unethical deed (as opposed to an ethical deed), people are more likely to favor cleaning products in product preference survey. Similarly, we found that respondents exposed to the outsourcing decision without a communal justification showed the greatest preference for cleaning products (e.g., Tide Laundry detergent) relative to non-cleaning products (e.g., post-it notes). The result showed that participants were indeed morally contaminated by the church's strategy and were not simply responding in socially desirable ways to our measures of distress.

The use of secular marketing strategies is unlikely to change given their effectiveness in providing value to consumers' experience. Likewise, the domains in which those strategies are seen as an encroachment are not likely to change quickly. We demonstrate the potential costs of such justifications and discuss less risky strategies that organizations could use - appealing to communal obligations or benefits.

McDaniel, S. W. (1986). Church Advertising: Views of the Clergy and General Public. *Journal of Advertising*, 15 (1), 24-9.

McGraw, A. P., Tetlock, P.E., & Kristel O.V. (2003). The Limits of Fungibility: Relational Schemata and the Value of Things. *Journal of Consumer Research*, 30, (September) 219-29.

McGraw, A. P., & Tetlock, P.E. (2005). Taboo Trade-offs, Relational Framing and the Acceptability of Exchanges. *Journal of Consumer Psychology*, 15, (January) 2-15.

Richtel, M. (2007). Thou shall not kill, except in a popular video game at church. *New York Times*. Pg. A.1. October 7, 2007. New York, NY.

Schlesinger, L.A., & Mellado, J. (1991). Willow Creek Community Church. Cambridge MA: Harvard Business School.

Symonds, W.C. (2005). Earthly empires: How evangelical churches are borrowing from the business playbook. *BusinessWeek*, 79-88. May 23, 2005.

Tetlock, P. E. (2002). Social Functionalist Frameworks for Judgment and Choice: People as intuitive politicians, theologians, and prosecutors. *Psychological Review*, 109, 451-71.

Tetlock, P.E., Kristel, O.V., Elson, B., Green, M., & Lerner, J. (2000) The Psychology of the Unthinkable: Taboo Trade-offs, Forbidden Base Rates, and Heretical Counterfactuals. *Journal of Personality and Social Psychology*, 78 (May), 853-870.

Zhong, C., & Liljenquist, K. (2006). Washing Away Your Sins: Threatened Morality and Physical Cleansing. *Science*, 313 (5792), 1451-52.

In Death and in Love: Sacred Trade-offs in the Funeral and Wedding Industries

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Funerals and weddings are two of the largest purchases consumers make. In the United States, the average funeral costs \$6,500 (and can reach \$10,000 with burial costs) and the average wedding costs more than \$27,000 (AARP 2000; FTC.gov; Rheault 2007).

Funeral and wedding purchases pose unique challenges; consumers typically have little purchasing experience and make decisions under time pressure, while subject to the scrutiny of friends, family and acquaintances. Furthermore, both industries have been subject to criticism for unscrupulous sales and marketing practices (e.g., Mitford 1998; Boden 2003; Mead 2007).

We examine a particular obstacle facing funeral and wedding consumers. When selecting and purchasing products and services in these domains, consumers are reluctant to engage in price-based trade-offs, which we contend promotes overspending. A growing literature examines how consumers are unwilling to engage in trade-offs between the secular (e.g., money) and the sacred (e.g., love and commitment; Baron and Spranca 1997; Belk, Wallendorf, and Sherry 1989; Fiske and Tetlock 1997; McGraw, Tetlock, and Kristel 2003). Such taboo trade-offs produce a variety of negative outcomes, including moral distress, moral contamination, decision avoidance, and decision refusal (Tetlock, et al. 2000; McGraw and Tetlock 2005; see also Luce, Bettman, and Payne 1997). We examine how price-based trade-off avoidance leads to non-compensatory decision strategies and spendthrift decisions.

A funeral purchase implicitly requires a price be placed on a deceased loved one's memorial, and similarly, a wedding purchase requires a price be placed on a ceremony that represents a couple's love and commitment. We argue such purchases are perceived as secular-sacred transactions and lead to price-based trade-off avoidance. Consumers do not want to undervalue sacredly held values by trading off price against other salient attributes, such as product quality or quantity. Thus, consumers engage in non-compensatory choice strategies and chose premium options rather than balancing price against other attributes. The purchase of premium options further signals the value of the loved one(s) represented by the purchase.

We present three studies that demonstrate consumers' greater willingness to pay for death care and wedding products compared to other routine purchase situations. We also show the effect is due, in part, to consumers' reluctance to engage in price-quality trade-offs. We conclude by discussing and testing ways to debias this tendency.

Study 1 demonstrates that consumers are willing to pay more for products associated with funerals and weddings than no specific association, even when those products are judged to be of equal quality. Participants stated their willingness to pay (WTP) for four products (e.g., candles, thank you cards) that were randomly assigned for use in either a funeral, a wedding, or for "any reason" (control). Participants' WTP for products used as part of a funeral ($M=\$31.42$) or memorial service ($M=\35.21) were significantly higher ($p < .01$) than for the control ($M=\$18.23$). Despite higher WTP values for funeral- and wedding-related products, judged quality of these products did not differ from the control (all $ps > .17$).

Study 2 used a matching versus choice procedure (Slovic 1991; see also Luce, Payne, and Bettman 1999) to examine consumer's unwillingness to make price-based trade-offs in funeral purchase decisions. Participants were asked to plan a dinner and were randomly assigned to control, wedding, or memorial conditions. They were then presented with two product options for use at the dinner. Respondents were asked to state the missing price (taboo trade-off) or quantity (routine trade-off) that would make them indifferent between low and high quality options. They were then asked to choose between the two matched options.

When faced with a price vs. quality trade-off, participants in the funeral and wedding conditions chose the high-quality/price option more often than control (71% and 68% vs. 51%, respectively) and chose more of the same product when faced with a price vs. quantity trade-off (66% and 60% vs. 45%; $p's < .01$). But consistent with our hypothesis that non-price-based trade-offs are not taboo, quantity-quality trade-off choices did not differ between conditions (59% and 55% vs. 58%; $p's > .26$).

Study 3 examined the effect of different techniques to reduce spendthrift preferences for high-price high-quality goods with sacred associations. Participants were instructed to perform a price matching task between

lower-quality/lower-priced thank you cards and a higher-quality option with no price listed (as in Study 2). The cards were to be sent to attendees of a wedding or funeral. Participants in the control condition were subsequently asked to make a choice between options. The debiasing conditions were designed to encourage price-quality trade-offs by presenting either economic or sacred reasons to make price-based trade-offs. First, the difficult nature of price-based trade-offs in sacred domains was described, and the subsequent inclination of consumers to choose premium options was stated. Respondents in the economic debias condition were told that rational consumers recognize trade-offs are necessary in all situations including sacred events. Respondents in the sacred debias condition were told that no amount of money captures the importance of the situation, and therefore the meaning of the event should not be expressed through spending. In both conditions, participants were then encouraged to treat the choice between the matched options as they would any run-of-the-mill purchasing decision.

Participants in the control condition chose the high-price, high-quality option 86% of the time, which is consistent with findings from Study 2. Those who read the economic debiasing statement chose the high-price, high-quality option 60% of the time, whereas participants who read the sacred debiasing statement chose the high-price, high-quality option only 41% of the time, a significantly different ($p < .01$) proportion than the control.

The project has implications for when and how policy makers and consumer advocates should intervene on behalf of consumers. Specifically, we address how interventions that simply encourage rational economic behavior of consumers without removing the taboo nature of the exchange may not be as effective as interventions that take into account the value-signaling role money in the evaluation of sacred purchases.

AARP (2000). *The Deathcare Industry*. Washington D.C.: AARP Public Policy Institute.

Baron, J., & Spranca, M. (1997). Protected Values. *Organizational Behavior and Human Decision Processes*, 70(1), 1-16.

Belk, R.W., Wallendorf, M., & Sherry, J. (1989). The Sacred and the Profane in Consumer Behavior: Theodicy on the Odyssey. *Journal of Consumer Research*, 16 (June), 1-38.

Boden, S. (2003). *Consumerism, Romance and the Wedding Experience*. Hampshire: Palgrave MacMillan.

Fiske, A. P., & Tetlock, P.E. (1997). Taboo Trade-offs: Reactions to Transactions That Transgress the Spheres of Justice. *Political Psychology*, 18(2), 255-297.

FTC.gov (n.d.). Funerals: A Consumer Guide. Retrieved March 23, 2008, from The Federal Trade Commission website: <http://www.ftc.gov/bcp/online/pubs/services/funeral.pdf>

Luce, M. F., Bettman, J.R. & Payne, J.W. (1997). Choice Processing in Emotionally Difficult Decisions. *Journal of Experimental Psychology: Learning, Memory, and Cognition*. 23, (2) 384-405.

Luce, M. F., Payne, J.W. & Bettman J.R. (1999). Emotional Trade-off Difficulty and Choice. *Journal of Marketing Research*, 36(May), 143-159.

Mitford, J. (1998). *The American way of Death Revisited*. New York: Alfred A. Knopf.

McGraw, A. P., & Tetlock, P.E. (2005). Taboo Trade-offs, Relational Framing and the Acceptability of Exchanges. *Journal of Consumer Psychology*, 15(January) 2-15.

McGraw, A. P., Tetlock, P.E., & Kristel, O.V. (2003). The Limits of Fungibility: Relational Schemata and the Value of Things. *Journal of Consumer Research*, 30(September), 219-229.

Mead, R. (2007). *One Perfect Day: The Selling of the American Wedding*. New York: The Penguin Group.

Rheault, M. (2007). Americans Underestimate the Cost of Tying the Knot. Retrieved August 14, 2008 from the Gallup Poll website: <http://www.gallup.com/poll/27844/Americans-Underestimate-Cost-Tying-Knot.aspx>

Slovic, P. (1991). The Construction of Preferences. *American Psychologist*. 50, 364-371.

Tetlock, P.E., Kristel, O.V., Elson, B., Green, M. & Lerner, J. (2000). The Psychology of the Unthinkable: Taboo Trade-offs, Forbidden Base Rates, and Heretical Counterfactuals. *Journal of Personality and Social Psychology*, 78 (May), 853-870.

Wrong, but Funny: Moral Violations Can Elicit Mixed Emotions

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Market exchanges require the sacred to be treated as profane (Belk, Sherry, & Wallendorf, 1989; Marx, 1973), and consumers are often upset when sacred entities like a girl's virginity are bought and sold like household appliances (McGraw, Tetlock, & Kristel, 2003; Tetlock, Kristel, Elson, Green, & Lerner, 2000). Taboo tradeoffs such as these are a subset of moral violations known to elicit negative emotions, including disgust (Haidt, Koller, & Dias, 1993; Rozin, Lowery, Imada, & Haidt, 1999). Our research suggests that there may also be a lighter side to moral violations; they may elicit amusement in addition to disgust.

Humor, according to Veatch (1998), occurs when a situation is simultaneously appraised as both a violation and as okay. Our research suggests this will occur when:

One norm suggests the situation is wrong, but another norm suggests the situation is not a violation. For example, harmless but impure behaviors are wrong according to moral norms based on purity, but okay according to moral norms based on harm (Haidt, 2007).

The consumer is psychologically removed from a moral violation. A violation may be distant because it seems unreal (Study 3), the consumer is not strongly committed to the violated moral norm (Study 4), the violation occurred in the distant past (Veatch 1998), the violation involves someone who is not closely related to the consumer (Hemenover & Schimmack, 2007), or the consumer experiences the violation through a protective frame (Andrade & Cohen, 2007; Apter, 1992).

Veatch (1998) suggests that moral violations will either elicit negative emotions, if they are not also accepted as okay, or amusement, if they are. We disagree. Situations interpreted in light of multiple, conflicting norms often elicit mixed emotions (Larsen, McGraw, Mellers, & Cacioppo, 2004). Similarly, we hypothesize that situations interpreted as both a moral violation and okay will elicit mixed emotions.

In Study 1, participants indicated whether various scenarios made them feel amused, disgusted, neither amused nor disgusted, or both. We constructed two versions of each scenario, a control condition describing a normal behavior and a violation condition describing a similar, but taboo behavior. In one of the twelve scenarios, for example, *Jimmy Dean* hires either a farmer (control condition) or a rabbi (violation condition) as a spokesperson for the company's pork products.

A manipulation check confirmed that scenarios involving violations were judged wrong more often than control scenarios. Participants were more likely to be amused by scenarios involving violations than by control scenarios. Participants were also more likely to be disgusted by scenarios involving violations than control scenarios. Importantly, participants were significantly more likely to report mixed emotions to violation scenarios than control scenarios.

A behavior may be appraised as both a violation and okay when one norm suggests the behavior is a violation but another suggests it is acceptable. Consequently, we expect that behaviors that are wrong according to one moral norm but acceptable according to another will elicit mixed emotions. Conversely, we expect that behaviors forbidden by both norms will elicit only negative emotions. Study 2 tests this hypothesis.

Participants read a scenario, adapted from Schnall and colleagues (2008), about a man rubbing his bare genitals against his pet kitten. This behavior violates moral norms related to purity/sanctity (Haidt 2007). We manipulated the harm caused by this act by varying whether the kitten "purrs and seems to enjoy the contact" or "whines and does not seem to enjoy the contact." Supporting our hypothesis, participants exposed to an impure but harmless behavior reported more amusement, more laughter, and more mixed emotions than participants exposed to a similar impure but harmful behavior.

Psychological distance may reduce the threat posed by a moral violation thereby enabling consumers to appraise the violation as okay. Consequently, distant violations should elicit mixed emotions but close violations should elicit only negative emotions. Our final two studies test this hypothesis.

Study 3 operationalized psychological distance by manipulating whether or not a violation seems unreal. In the unrealistic version of the scenario a girl named Jenny sells her virginity on *eBay* to pay off family debt. In the realistic version, we did not specify where Jenny sells her virginity. A manipulation check confirmed that the former scenario was less realistic.

We crossed this distance manipulation with a control condition in which Jenny sells her jewelry instead of her virginity. Study 4 provides a conceptual replication of study three. In this study psychological distance was operationalized as commitment to a moral norm. Participants either read about a church (violation condition) or a credit union (control condition) that gives away a Hummer SUV as part of a promotion. Most consumers recognize that religious organizations like churches are sacred and should not be governed by the same market-pricing norms as secular organizations like credit unions (McGraw, Schwartz, & Tetlock, 2008). However, only churchgoers should be strongly committed to this norm. Consequently, we measure church attendance as a proxy for commitment.

Studies 3 and 4 replicate our first study. Participants reported more amusement, more disgust, and more mixed emotions in the violation condition than in the control condition. This main effect, however, was moderated by psychological distance. Participants were both amused and disgusted by Jenny selling her virginity on *eBay*, but only disgusted when she sells her virginity in an unspecified way. Similarly, non-churchgoers were both amused and disgusted by a church giving away a Hummer, whereas churchgoers were only disgusted by the promotion.

Moral violations interpreted as both wrong and okay will elicit amusement in addition to disgust. Our finding extends prior research that contends that consumers typically react negatively when sacred entities, such as a young girl's virginity, are treated like commodities (Belk et al., 1989; McGraw & Tetlock, 2005). Our findings have implications for advertising, which often relies on humor to attract attention (Beard, 2005; Eisend, 2008). Moral violations that can also be interpreted as ok may provide one way to cut through clutter and make consumers laugh.

- Andrade, E., & Cohen, J. B. (2007). On the Consumption of Negative Feelings. *Journal of Consumer Research*, 34(3), 283-300.
- Apter, M. J. (1992). *The Dangerous Edge: The Psychology of Excitement*. New York: The Free Press.
- Beard, F. K. (2005). One Hundred Years of Humor in American Advertising. *Journal of Macromarketing*, 25(1), 54-65.
- Belk, R. W., Sherry, J. F., Jr., & Wallendorf, M. (1989). The Sacred and the Profane in Consumer Behavior: Theodicy on the Odyssey. *Journal of Consumer Research*, 16(1), 1-38.
- Eisend, M. (2008). A Meta-Analysis of Humor in Advertising. *Journal of the Academy of Marketing Science*, 36.
- Haidt, J. (2007). The New Synthesis in Moral Psychology. *Science*, 316(5827), 998-1002.
- Haidt, J., Koller, S. H., & Dias, M. G. (1993). Affect, Culture, and Morality, or Is It Wrong to Eat Your Dog? *Journal of Personality and Social Psychology*, 65(4), 613-628.
- Hemenover, S. H., & Schimmack, U. (2007). That's Disgusting!..., But Very Amusing: Mixed Feelings of Amusement and Disgust. *Cognition and Emotion*, 21(5), 1102-1113.
- Larsen, J. T., McGraw, A. P., Mellers, B. A., & Cacioppo, J. T. (2004). The Agony of Victory and Thrill of Defeat: Mixed Emotions Reactions to Disappointing Wins and Relieving Losses. *Psychological Science*, 15(5), 325-330.
- Marx, K. (1973). *Grundrisse* (M. Nicholas, Trans.). Harmondsworth, UK: Penguin.
- McGraw, A. P., Schwartz, J., & Tetlock, P. E. (2008). Secular Strategies and Sacred Sentiments: Legitimizing Trade-Offs in Religious Pharmaceutical Marketing. (Working Paper)
- McGraw, A. P., & Tetlock, P. E. (2005). Taboo Trade-Offs, Relational Framing and the Acceptability of Exchanges. *Journal of Consumer Psychology*, 15, 2-15.
- McGraw, A. P., Tetlock, P. E., & Kristel, O. V. (2003). The Limits of Fungibility: Relational Schemata and the Value of Things. *Journal of Consumer Research*, 30(2), 219-229.
- Rozin, P., Lowery, L., Imada, S., & Haidt, J. (1999). The CAD Triad Hypothesis: A Mapping Between Moral Emotions (Contempt, Anger, Disgust) and Three Moral Codes (Community, Autonomy, Divinity). *Journal of Personality and Social Psychology*, 76(4), 574-586.
- Schnall, S., Haidt, J., Clore, G. L., & Jordan, A. H. (2008). Disgust as Embodied Moral Judgment. *Personality and Social Psychology Bulletin*, 34(8), 1096-1109.
- Tetlock, P. E., Kristel, O. V., Elson, S. B., Green, M. C., & Lerner, J. S. (2000). The Psychology of the Unthinkable: Taboo Trade-Offs, Forbidden Base Rates, and Heretical Counterfactuals. *Journal of Personality and Social Psychology*, 78(5), 853-870.
- Veatch, T. C. (1998). A Theory of Humor. *Humor: International Journal of Humor Research*, 11, 161-215.

Decisions across Time, Decision about Time, and the Timing of Decisions

Chair: Christopher Olivola, Princeton University

Symposium Overview

The consideration of time is ubiquitous in every day decisions. Decisions about spending money now or saving it for later, the decision to forgo a snack or to splurge, and the decision to pay by credit card versus cash are just some of the numerous situations in which people must tradeoff between consumption in the present and consumption in the future. Time also comes into play not only regarding tradeoffs between present and future consumption, but also in the actual timing of a decision, which can alter the decision-making process itself. Given the importance of intertemporal choice, understanding how time interacts with decision making processes is an important goal if we are to properly understand consumer choice. In line with this goal, the purpose of this symposium is to explore how decisions across time, decision about time, and the timing of decisions, govern consumption behavior. The papers in this session explore the impact of time on consumer cognition as well as some important determinants of people's discount rates (an economic measure of patience), with implications for consumer welfare.

The first paper (Shu) demonstrates that individuals differentially focus on the gains vs. losses associated with risky mixed outcomes when these occur in the present vs. distant future, leading to different valuations of the same prospect across time. The second paper (Olivola & Wang) introduces two novel, incentive-compatible methods for eliciting discount rates. A comparison of these methods reveals that the discounting of delayed rewards varies dramatically, depending on whether attention is focused on the temporal or monetary dimension of delayed rewards. The third paper (Myrseth & Fishbach) demonstrates that people are more likely to exercise self-restraint in the face of temptations when these temptations are perceived as interrelated, rather than isolated, events. Finally, the fourth paper (Liu & Levav) demonstrates that decisions momentarily halted in time are more susceptible to some context effects and less susceptible to others.

The papers in this session highlight novel and important interactions between time and decision making. Among other things, they contribute to our understanding of how choices are affected by the timing of the outcomes associated with those choices (Shu; Olivola & Wang) and show that both the actual and perceived timing of decisions can impact choices (Myrseth & Fishbach; Liu & Levav). These papers also adopt creative approaches to the study of intertemporal choice, including field experiments (Myrseth & Fishbach) and experimental auctions (Olivola & Wang).

In summary, the four papers in this symposium provide both original methods for studying intertemporal choice and novel findings concerning the relationship between time and consumer decision making. Collectively, they demonstrate interesting and surprising phenomena, as well as important theoretical constructs to the study of intertemporal choice. This symposium should appeal to a diverse research audience for several reasons. First, research into intertemporal choice has implications for understanding the beneficial behaviors (i.e., delaying gratification), as well as the adverse choices (i.e., succumbing to harmful temptations) that seriously impact the well-being of consumers. Thus, it contributes to a growing body of research in the area of "transformative consumer research." In addition, a number of other important concepts are considered in these papers, including self-control, psychological distance, context effects, and decisions under uncertainty.

Short Run Losses, Long Run Gains

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Research on optimistic predictions finds that thinking about positive outcomes can affect judgment. For instance, as individuals think about a desirable focal outcome, they often put undue weight on that outcome relative to other possibilities; this has effects on probability estimates, affective forecasting, and other judgment tasks (Koehler 1994, Wilson et al. 2000, Rottenstreich and Kivetz 2006). Such focus on the focal outcomes can also lead to greater confidence in the belief that the outcome will occur (Koehler 1991). Additional work has looked at how these optimistic predictions vary over time. Individuals are typically more optimistic the farther they are from the point at which the outcome will become known; for example, Gilovich, Kerr and Medvec (1993) find that students are very optimistic prior to a test but become significantly less optimistic as they get closer to finding out how they actually performed. Work on resource slack,

temporal construal, and regulatory focus also offers evidence that individuals see far-off things more holistically and positively than immediate events (Trope and Liberman 2003, Zauberman and Lynch 2005, Pennington and Roesse 2003). While much of the prior research has focused on outcome predictions (e.g., performance on a test, winning a football game, having time to study), less has been done to explore how optimistic predictions influence valuation and choice for future outcomes. For example, consider a simple gamble that provides some probability of a loss and some probability of a gain. We know that for immediate gambles, individuals are loss averse. But for far-off gambles, is it possible that some form of optimism bias or wishful thinking causes the individual to focus on the gain outcome rather than the loss outcome? And what might this imply for valuation of those future outcomes?

The research presented here suggests that individuals put more focal attention on gambles' gains for long-run outcomes, but shift attention toward losses in the short run. For example, consider two gain/loss scenarios – a future visit to a casino, in which an individual will either gain or lose money at a specific future moment, or the purchase of a lottery ticket, in which the loss is experienced immediately but the potential gain is delayed until a winner is announced. Study participants who consider a casino scenario focus initially on potential gain outcomes, but this focus shifts toward potential losses as the actual outcome approaches. Thus, gains attract more attention when outcome feedback is farther away. However, this pattern changes for participants who consider a lottery scenario. These individuals focus on the loss at the time they buy the lottery ticket (when they incur the loss); they then shift their focus to the gain as feedback approaches. This overall pattern suggests that losses dominate in the short-run (either at the time they actually occur or when they may be expected to occur), but that gains become the focal outcome as distance from the loss increases. Additional studies in which individuals are asked about their post-outcome focus on gains relative to losses find the same pattern, with gains having a larger impact on thoughts and happiness as losses become more distant.

Stronger focal attention on gains relative to losses for long-run outcomes has implications for how choices are evaluated, with the result that gains will be more heavily weighted for a far-off outcome. This differential attention to gains and losses for temporally removed outcomes can apply to many decision-making domains. For example, consider how individuals electing a politician for a multi-year term may find a “hope for future gains” message more appealing than a “recover from current losses” message. A study of two political messages, matched for overall content, finds that participants rate a hope message focused on future gains as significantly more appealing than a “reverse losses” message, and that this affects subsequent choice.

Another implication of overweighting of future gains is evident in how individuals value uncertain opportunities relative to current costs. Just as playing the lottery implies a current known cost for the small possibility of a future gain, people may be willing to incur immediate costs if they believe that those costs create future opportunities. In an additional study, participants express a willingness to accept a lower relative salary if a job also offers an opportunity for a future promotion, even when this choice has a lower lifetime expected value than a higher paying job without a promotion opportunity.

Taken together, the studies presented here provide evidence that individuals focus on loss outcomes in the short run but gain outcomes in the long run, and this long-run focus on gains has measurable impact on choices and valuations. These findings suggest that curvature of the Prospect Theory value function may change once time is incorporated. Several explanations for loss aversion have suggested that loss aversion has a basis in emotional reactions to the outcomes –specifically, a more emotionally charged reaction to negative outcomes. The idea that distant negative outcomes have less of an emotional impact is consistent with other work on visceral effects and empathy gaps. If the individual perceives a far future loss as happening to a distant future self, the emotional impact of that loss is greatly reduced, and loss aversion is therefore dampened. As the loss gets farther away (past or future), gains become more focal, and optimism increases accordingly. A better understanding of how individuals evaluate short run losses and long run gains may provide useful insight into human capital investment, risk taking, and other long run behaviors.

Does Time Equal Money? Using Auctions to Measure Discount Rates under Time vs. Money Framing

Christopher Olivola, Princeton University*

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How do people trade off consumption in the future with current consumption? Measuring discount rates or discount functions is crucial to answering this question, but such measurements pose many methodological challenges. The majority of current measurement methods, such as matching tasks or hypothetical choice, suffer from important weaknesses (Frederick, Loewenstein, & O'Donoghue, 2002). Either they only provide bounds on the discount parameter rather than a point estimate or they are not carried out with real payoffs, thus giving participants no incentives to provide accurate answers and possibly limiting their external validity. In contrast, auction-based approaches can overcome these limitations by providing incentive-compatible mechanisms to elicit discount rates. For example, in second-price private-value auctions, the dominant strategy is for each bidder to bid his/her true value for the good regardless of what the other bidders do (Vickrey, 1961).

We introduce, test, and compare two novel auction-based experimental methods for eliciting discount rates. In these “patience auctions”, participants could either receive \$10 immediately or a payoff sometime in the future, as determined by the bidding process. The two types of single-round sealed-bid “patience auctions” that we used differed with regard to the dimension that participants could bid on: money versus time. We also compare the relative merits of using first-price auctions versus second-price auctions. In each money-bid auction, the length of delay for the future payoff was pre-set and participants simultaneously bid the monetary amount for that payoff. The lowest bidder obtained the bid-determined payoff at the end of the pre-set delay period and all other bidders received \$10 at the end of the session. In the first-price money-bid auction, the bid-determined payoff was the lowest bid whereas in the second-price money-bid auction, the bid-determined payoff was the second lowest bid. In each time-bid auction, the monetary amount for the future payoff was pre-set and participants simultaneously bid the length of delay for that payoff. The highest bidder obtained the pre-set payoff at the end of the bid-determined delay period and all other bidders received \$10 at the end of the session. In the first-price time-bid auction, the bid-determined length of the delay was the highest bid, whereas in the second-price time-bid auction it was the second highest bid. We discuss the important advantages these auctions have over other incentive-compatible methods of elicitation, including Becker-DeGroot-Marschak (BDM) and alternative auction designs. In particular, we show that patience auctions provide a more efficient method for eliciting discount rates from large numbers of participants than previous procedures, yielding significant savings of time and money.

In each of the four experimental auction sessions, fifteen participants bid in eight money-bid auctions and eight time-bid auctions, with different pre-set parameters for the delayed payoff or the length of delay, depending on the bid type. All the auctions were first-price auctions in two of the sessions and second-price auctions in the other two sessions. Participants were given no feedback about others' bids or the outcome of each auction. They were paid based on the outcome of one of the sixteen auctions, chosen at random, after all auctions were completed, in order to avoid any incentive distortions. In addition to the auctions, we administered surveys to another group of participants. These surveys were designed to be the hypothetical matching-task equivalents of the auctions: the parameter values used and their orderings were identical to the ones used in the auctions. This allows us to compare the discount rates revealed through the incentive-compatible auctions to those obtained with the commonly used matching task method. Sixty Princeton undergraduate students participated in the experimental auction sessions and an additional thirty completed the hypothetical matching-task surveys.

Beyond their methodological advantages, these auctions allow us to examine new and important questions about the determinants of discounting. Using our within-subject bid type manipulation, we can compare how discount rates vary depending on whether the auction focuses participants' attention on the temporal or monetary dimension of delayed rewards. We find that people are more patient when they bid time than when they bid money –a difference not obtained with equivalent hypothetical matching surveys. Specifically, the estimated mean daily discount rate (DDR) was lower in the time-bid auctions than in the money-bid auctions. While this result supports a “constructed preferences” account (Lichtenstein & Slovic, 2006) of intertemporal choice, we also find a strong within-individual correlation between implied discount rates obtained under time and money bidding, suggesting that approximately half the variance is driven by stable underlying preferences for discounting. Our results are robust to varying assumptions about the curvature of the utility

function (risk-aversion vs. risk neutrality), as well as the form of the discount function (exponential vs. hyperbolic). Finally, we find that, contrary to standard auction theory predictions, first-price auctions provide more coherent estimates of the discount rates than their second-price equivalents.

We discuss why standard models of discounting fail to account for the disparity we find in discount rates when people bid money versus time. We then consider how our results relate to other recent findings in psychology, regarding the way people value time versus money. We also discuss the implications of these experimental results for the design of economic mechanisms that involve intertemporal tradeoffs. One example is treasury auctions of bills and bonds that have a pre-specified payoff structure in the future. We consider the possible outcomes of alternative treasury auction designs that elicit time bids for pre-determined current prices and future payoffs rather than the existing money bid method.

Activating Self-Control: Isolated versus Interrelated Temptations

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Some temptations are not damaging when consumed in moderation, but will conflict with long-term goals when consumed extensively. We call these “epsilon” temptations. For example, having one small dessert will not affect the dieter’s health goals, but having small desserts every day might. If seen in isolation, the choice between indulging or not seems to bear but trivial costs, and so the resolution will be to indulge. However, if seen in relation to future opportunities to have dessert, the dieter might realize that opportunities for desserts are plentiful. As such, the choice to have dessert or not is no longer about this dessert alone. It is about having desserts in general, and having desserts in general conflicts with his or her health goals (e.g., Rachlin 2000; Read, Loewenstein, & Rabin, 1999). Under these conditions, the resolution may be not to indulge. We propose that isolated opportunities for indulging in epsilon temptation do not represent self-control dilemmas, whereas interrelated opportunities do. Thus, individuals exercise self-control in the face of epsilon temptation only when the consumption opportunity is viewed in relation to future opportunities.

If self-control dilemmas are experienced only when temptations are interrelated, we expect that framing temptations as isolated will increase indulgence and reduce self-control. That is, only when temptations are perceived as interrelated will individuals invoke rules for behavior (e.g., see Fujita, Trope, Liberman, & Levin-Sagi, 2006; Thaler & Shefrin, 1982) or activate implicit counteractive evaluation (Fishbach & Shah, 2006). We would therefore expect individuals to choose more goal-oriented behavior over indulgence for calendar events that are visually separated than for events that are not (Study 1 & 4). We would also expect that verbally framing events as singular versus general would lead individuals to indulge more (Study 2). Furthermore, priming individuals to think of opportunities as similar would lead to more self-control than priming individuals to think of opportunities as different (Study 3). Finally, we would expect individuals facing isolated vs. interrelated consumption opportunities to experience less self-control conflict, and that experienced conflict would mediate restraint (Study 4). We report four studies in support of these hypotheses.

In study 1, we asked students to indicate their intentions to engage in academic versus leisure activities for the upcoming weekend. A single weekend of leisure would not interfere with academic success, but many might. We manipulated the interrelation of opportunities by displaying a calendar that either highlighted the focal weekend or did not. As predicted, students who viewed a calendar highlighting the upcoming weekend intended to spend more time on leisure and less on academics than did those who viewed a calendar not highlighting the weekend.

Study 2 was a field study where we discretely observed individuals’ food choices. We situated two food stands at similar locations on a university campus, and each stand contained a poster and a table filled with carrots and chocolates. The poster stated that free food was given out. Indulging in a chocolate snack once would not affect one’s dieting goals, but doing so the entire season might. We manipulated the interrelation of opportunities by having the poster read either “April 12th food stand” or “Spring food stand.” As we predicted, participants in the April 12th condition indulged more than did those in the spring condition; participants in the April 12th condition chose more chocolates and fewer carrots.

Study 3 was a field study where we discretely observed participants’ purchases. Individuals at a university coffee shop completed a questionnaire before making a purchase. Making a small purchase once would not affect one’s dieting or budgeting goals, but doing so often might. We manipulated interrelation of opportunities by priming participants to think

of either similarities or differences of opportunities. We expected those thinking of opportunities as similar to exhibit more self-control and thus spend less than those thinking of opportunities as different. Moreover, to rule out abstraction as an alternative explanation (e.g., Fujita et al, 2005), and to show that similarity of opportunities and not similarity alone increases self-control, we primed other participants to think of either similarities or differences of objects. We expected that thinking of objects as similar would conflate goals and temptation, leading to less self-control than when thinking of objects as different. As we predicted, individuals who thought of opportunities as similar spent less than did those who thought of opportunities as different. However, individuals who thought of objects as similar spent more than did those who thought of objects as different.

Study 4 was introduced to participants as a “consumer evaluation study.” Participants sampled two potato chips and were presented next with a calendar that either highlighted as special the present date or not. Subsequently, participants were offered to have the remaining chips. When finished eating, participants reported their experienced conflict at the time of deciding whether or not to have more chips. Critical for our hypothesis, participants viewing the calendar that highlighted the present date experienced less choice conflict and ate more chips than did participants viewing the calendar without the highlighting. Moreover, participants’ choice conflict mediated their restraint.

Taken together, our studies demonstrate that individuals identify self-control conflict in the face of epsilon temptation, and thus exercise restraint, only to the extent that they see opportunities to indulge as interrelated.

Preferences, Interrupted

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In everyday life, decisions are often made in multiple stages due to interruptions or suspensions. For example, a multitasking manager may be juggling several issues on the same work day, and may have to switch between different decisions. Similarly, a consumer may be considering a purchase, but may be sidetracked for a while by other interests. In this paper we ask, what is the effect of such interruptions on preferences?

Recent research (Dijksterhuis et al. 2006; Liu 2008) shows that interrupting or postponing a decision can have a significant effect on decision outcome by changing the way people think about the decision. In particular, when thinking about a choice after a brief period of separation from initial exposure to the problem, thinking becomes more high-level and top-down, resulting in greater focus on high-level construal and less attention to low-level detail. Thus, people choose items that rate high on desirability (a high-level trait; Trope and Liberman 2000) rather than feasibility (a low-level trait). For instance, when choosing between a hiking trail that has beautiful scenery but is far away, and another that is plain but easily accessible, after an interruption people are more likely to choose the former option, compared to when the decision is not interrupted.

The current research builds on the growing interest in the dynamic course of decision making, and examines the effect of interruption on the degree of context-dependence in decisions. We find that interrupting decision-makers as they consider the option set attenuates the attraction effect, but increases the compromise effect. We propose that this occurs because interruption leads to a greater reliance on one’s inherent, chronic preferences, rather than a construction of preferences based on contextual cues. Furthermore, this process shares similarities to the effect of thinking about the distant future, whereby the person focuses on the high-level construal of the problem.

In our studies we contrast two classic context effects: the compromise effect (Simonson 1989) and the attraction effect (asymmetric dominance; Simonson & Tversky 1989; Huber, Payne and Puto 1982). Behavioral decision theory posits that choices are determined by two types of information concerning the options: preferences that exist in people’s memory and responses to current contextual stimuli (Tversky and Simonson 1992). We propose that the two types of information correspond to different levels of “preference construal.” Inherent preferences concern people’s pre-stored attitudes toward objects. However, because memory is a limited resource, preferences for many objects is constructed rather than retrieved (Bettman, Luce and Payne 1998). We suggest that, as a result, retrieved preferences concern high-level dimensions of objects, such as the product’s identity (e.g., its brand) or the identities of its main attribute dimensions (e.g., sweetness, color). We associate these types of retrieved preferences with a “high level” of preference construal. In contrast,

contextual information refers to specific relationships among the values contained in the decision situation, such as the attribute levels themselves (e.g., 2.8 GHz of memory). Since people typically do not have pre-sorted preferences regarding aspects such as attribute levels, they make decisions based on the relation between different attribute levels (e.g., dominance). We associate preferences that are based on this type of reasoning as reliant on a “low level” of preference construal. For example, in choosing between two computers, a high-level construal involves the identity of the attributes (e.g., the attributes of memory, and CPU speed); a lower-level construal involves the values on these attributes (e.g., 2 GB for memory, and 1.9 GHz for CPU speed). We hypothesize that because the person processes at a higher level construal after a period of interruption in a decision, he/she will pay more attention to attribute identity, rather than relationships in attribute value after an interruption.

This hypothesis implies a different prediction for the attraction and compromise effects. Specifically, the attraction effect relies on a perception of a peculiarity in attribute levels, namely, a dominance between values of one option to another. However, the attention to such a dominance relationship may be attenuated if a person’s focus is on higher-level constructs such as the identity of the attribute dimensions, rather than attribute values. Consequently, we expect an interruption in decision making will reduce the attraction effect. This effect is confirmed in S1, where an interruption reduced the attraction effect in 4 out of 4 categories.

On the other hand, the compromise effect is a result of feeling of conflict between two attribute dimensions. That is, if two attribute dimensions are both important to a decision (and both have reasonable attribute values), people may feel great conflict giving up value on either dimension, and as a result choose a middle ground where each value is at a middle level. We propose that when people pay greater attention to the higher level construal of attribute identity after an interruption, they are likely to feel even greater conflict between the attributes, and therefore be more likely to choose the compromise option. This prediction is borne out in S2 in 4 out of 4 categories.

A third experiment studies the mechanism underlying the interruption effect. Specifically, we find that temporal distance has a similar effect as decision interruption, attenuating the attraction effect, while increasing the compromise effect.

This research has significant implications for the understanding of temporal dynamics in decisions. Specifically, making a decision “right now” and “for now” seem to have the same mode of processing, whereas making a decision “in a while” and “for the future” rely on a higher-level construal.

Consumer Behavior and the Self: The Other (Negative?) Side of Affirmation, Identity and Schema-Matching

Chair: Claudia Townsend, University of California, Los Angeles

Symposium Overview

The four presentations in this symposium reveal the crucial role of the individual's sense of self in determining consumer behavior. This occurs during information processing, recall, choice, and consumption. The findings from these papers not only suggest a broad and significant role for the self in consumer behavior, but also make valuable theoretical contributions to self research that move beyond consumption-related conduct to broader areas of memory, self-affirmation, and self-preservation activities.

Do consumers and marketers always benefit when advertisements and products bolster a particular aspect of the audience's self-concept? The answer in most existing research is a resounding yes. On the consumer side, identity affirming products can help consumers feel better about themselves following a blow to their self-worth (Dalton 2008). On the marketer side, advertisements that appeal to consumers' valued identities are evaluated more positively, and thus affirming the self through advertisements may increase sales (Forehand and Deshpande 2001). A large body of work sheds light on these and many other favorable aspects of bolstering consumers' sense of self or of matching products and advertisements to valued aspects of the self (e.g., Escalas and Bettman 2005; Reed and Aquino 2003; Steele 1997). By contrast, this session presents four papers that suggest just the opposite conclusion: affirming consumers' self-worth through products and advertisements may sometimes have less desirable effects. In particular, identity boosts may lead consumers to make poor or unhealthy decisions and may reduce the impact of marketers' messaging. This insight runs contrary to common intuition. As consumers, we are naturally attracted to things that make us feel good about ourselves; as marketers, we suppose that complimenting consumers will help us earn their business. In this session, we show that both of these assumptions may not always apply.

We will present the papers in chronological order as related to consumer behavior. In "The Role of the Self in Prime-to-Behavior Effects," Wheeler, DeMarree, and Petty explore an early stage of consumption-related behavior; the processing of and elaboration on advertisements. The authors suggest that priming a trait or stereotype can induce self-relevance so that the ad that does not target a specific individual or social group can be processed more carefully, in a manner comparable to a targeted or more self-relevant ad. A potential outcome of this is that if decision-makers make a choice on the basis of this temporarily activated identity, they may come to regret it once the identity activation wears off. In "Who I am and What I Know: An Identity Based Memory Model," Mercurio and Forehand look at the next stage of consumption-relevant thought - when the consumer recalls brand-related information. By proposing that identity activation may be similar to mood activation, the authors outline the conditions of when and how a consumer's social identification is likely to be the basis for memory retrieval. Through this they demonstrate the importance of identity activation in memory. Additionally, their research suggests that advertisements that call attention to a particular identity may actually worsen rather than improve consumers' memory for identity relevant brands. In "Self-Affirmation Through the Choice of High Aesthetics," Townsend and Sood move to the next stage of consumer behavior, namely product choice. Their research demonstrates the impact of self-affirmation on product choice, particularly that affirming the self prior to choice reduces consumers' preference for aesthetically pleasing products. One possible result is that advertisements that praise the consumer may be relatively ineffective when the product's major selling point is its visual attractiveness. Finally, in "Taking My Medicine Makes Me Feel Good About Myself: Turning Hypertension Medication Compliance into a Source of Self-Affirmation," Finnel, Reed, Volpp, and Armstrong look at the final stage of consumer behavior - actual consumption. Consistent with the findings of Townsend and Sood relating to choice, this paper demonstrates that if consumers obtain self-affirmation from one source (e.g., an identity), they may not need to get it from another source (e.g., medication consumption).

The Role of the Self in Prime-to-Behavior Effects

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The self is a key driver of information processing. People seek out self-relevant information (Fong & Markus, 1982), recall it more accurately (e.g., Markus, Crane, Bernstein, & Siladi, 1982), and process it more thoroughly (Allison, Worth, & King, 1990; Erber & Fiske, 1984; Neuberg & Fiske, 1987; Petty & Cacioppo, 1979). One of the research areas in which the effects of self-relevance on information processing have received considerable attention is with respect to persuasion (Johnson & Eagly, 1989; Petty & Cacioppo, 1990). When baseline elaboration is not constrained to be high or low, increasing self-relevance in any of these ways can heighten information processing activity and thus the extent to which individuals' attitudes following a persuasive message reflect the quality of the arguments in the message (Petty & Cacioppo, 1990, see Petty, Wheeler, & Bizer, 2000 for more discussion).

To date, all of the research on the effects of self-relevance on persuasion has examined the effects of *actual* self-relevance. That is, messages have appealed to individuals' chronic, self-reported characteristics (Deshpande & Stayman, 1994; Reed, 2004; Wheeler, Petty, et al., 2005) or experimental manipulations have made individuals believe that the message topic will affect their actual future outcomes (e.g., Petty, Cacioppo, & Goldman, 1981). The focus of this presentation is on a novel, and perhaps surprising, way to induce self-relevance. Rather than targeting messages such that they match recipients' actual characteristics, such as their traits, values, or group memberships, it may also be possible to induce more careful information processing by temporarily changing the recipients' active self-concepts to match the message. One potential method of changing recipients' active self-concepts is through priming.

Priming research has shown that the activation of selected mental contents can reliably influence judgment and behavior. Individuals in whom a trait or stereotype is made accessible typically behave more similar to the stereotype. Evidence has suggested that processes related to the self and self-concept may play a role in such effects (e.g., DeMarree, Wheeler, & Petty, 2005; Hull et al. 2002; Wheeler, Jarvis, and Petty 2001; Wheeler and Petty 2001; Wheeler, Morrison, DeMarree, & Petty, 2008). Based on this evidence, Wheeler, DeMarree, and Petty (2005, 2007) suggested that stereotype activation effects may sometimes be due to temporarily activating or including content in the working self-concept, even when participants are not members of the stereotyped group. In fact, much research suggests that the self-concept can assimilate to prime content, even when it is not objectively relevant to the self (e.g., when people are primed with outgroup stereotypes; Wheeler, et al., 2007). If this is the case, individuals who are primed with a stereotype or trait construct should act as though the prime were part of the self. This suggests a novel marketing implication. If primes can affect the active self-concept of prime recipients, it might be possible to make non-targets of advertisements process them as though they were members of the targeted group.

Additionally, however, the effects of the prime should depend on the extent to which individuals incorporate primed content into the self-concept and rely on their self-characteristics and beliefs to guide behavior. Self-monitoring is one variable that predicts the extent to which individuals rely on inward cues or outward cues in determining their behavior in a situation (Snyder 1974). In fact, prior research showed that low self-monitors are more likely to incorporate primed constructs into their active self-concepts, and they also show larger priming effects (DeMarree, et al., 2005). We predicted that people would process targeted advertisements more when primed with a matching social construct, particularly when they were high in self-monitoring.

In this research, we used a self-schema matching paradigm. Individuals who receive persuasive messages matched to an aspect of their self-concepts engage in greater message elaboration than individuals who receive persuasive messages mismatched to their self-concepts (Petty, Wheeler, and Bizer 2000; Wheeler, Petty, & Bizer, 2005). If individuals incorporate primed content into their self-concepts, then they could show increased elaboration in response to messages matching the primed content. The first experiment tested this hypothesis.

Individuals were subtly primed with extraversion or introversion using a sentence-unscrambling task (Srull and Wyer 1979). Following the priming manipulation, they read advertisements for a VCR framed to match introverts or extraverts. Manipulated orthogonally to the message frame was argument quality such that some participants read strong arguments,

whereas other participants read weak arguments. Individuals who engage in greater message elaboration exhibit stronger argument quality effects than do individuals who engage in less message elaboration (Petty and Cacioppo 1986). Results indicated that participants engaged in elaborated the message more when it matched the primed personality trait (i.e., extraversion or introversion) than when it mismatched the primed personality trait. Hence, participants processed the advertisement as though it were self-relevant when it matched the primed trait.

A second experiment tested whether these effects would be moderated by self-monitoring. In this experiment, white high and low self-monitors were subtly primed with the African-American stereotype or not, before reading a strong or weak advertisement for a CD player. The message was framed to match African-Americans or Whites by providing names of rap and R&B artists or rock artists in the background of the advertisement. Low self-monitors assimilated to the prime. That is, they elaborated the African-American framed ad more when they were primed with the African-American stereotype. When they were primed with neutral words, they elaborated the White-framed ad more. High self-monitors, on the other hand, showed no significant effect of the prime.

These results show that individuals in whom traits or stereotypes are temporarily made active act as though they are characterized by the primed content by elaborating ads matching the prime more deeply. These findings are consistent with the notion that primed content is sometimes incorporated into the self-concept and that the effects of primed material will depend not only on the prime content, but also the characteristics of the prime recipient.

Who I Am and What I Know: An Identity Based Memory Model

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In the past there has been a plethora of research that has shown the influence of identity on product evaluations (Forehand and Deshpande, 2001, Meyers-Levy, 1988, Dimofte, Forehand, and Deshpande, 2003; Forehand, Deshpande, Reed, 2002; Reed 2004, Wooten, 1995; Stayman and Deshpande, 1989; O'Guinn and Meyer, 1984). However, there has been little to no research on the influence of identity on the ability to remember information. Thus a rational expansion of identity literature is to examine memory for identity relevant information after identity activation. There are a variety of variables that critically intervene between consumers' processing and storing of information and subsequent retrieval of that information (Neisser, 1967, Broadbent, 1958, Melter, 1983, Morris & Kopelman, 1986, Freud, 1901, Bower, 1981, and Teasdale and Fogarty 1979). State dependent memory and mood congruent memory research has suggested mood can positively affect the memory process (Bower, 1981). In contrast, other research suggests that activating someone's associative network can interfere with information processing (Cantor and Mischel, 1977).

Research has suggested that triggering a social identity will cause an activation of the identity's associative network (Anderson and Bower, 1973). Further, research has demonstrated that activating this associative network will cause a false alarms effect (Cantor and Mischel, 1977) whereby subjects are more likely to falsely recognize new items that are associated with that identity, compared to new items that are not associated with that identity (Rogers et al., 1979). Similarly, Anderson's fan effect (1979) suggests that retrieval latency increases as a function of the number of facts associated with a node in an associative network. The author proposes that the more one knows about a topic, the harder it is to gain access to any particular item of topic-relevant information. Therefore, we predict that individuals exposed to an identity prime at retrieval should demonstrate higher levels of false recall for identity consistent information than those not exposed. Further, we predict that individuals exposed to an identity prime at retrieval should demonstrate lower levels of accurate recall for identity consistent information than those not exposed.

We propose that memory for identity consistent information may vary based upon identity at encoding and identity at retrieval. Drawing from memory and mood research, Bower's state dependence model demonstrates that recall ability improves when mood at encoding matches mood at retrieval (Bower et al. 1981). He found that the affective content of the material has no effect on memory; the material can be pleasant, unpleasant, or neutral (Bower et. al 1978). This theory is in direct competition with mood congruence (Baddely, 1998) whereby recall ability is driven by a match between individual's mood at recall and the affective content needing be recalled. This mood research led to two experiments. In experiment 2, we predicted that the affective nature of identity activation may be causing the effect we found in

experiment 1. We tested the impact of mood on recall for identity and mood consistent information when identity is activated. We predict that activating a positive or negative gender identity at recall should demonstrate higher levels of false recall for identity consistent information than those not exposed. For experiment 3, we propose a three way competitive theory test between identity dependence theory, identity congruence theory, and our own model of memory where recall ability is hindered by the match between the individual's social identity at recall and identity relevant information.

We tested our hypotheses with the three following studies. For the first study, a 2 (gender prime at retrieval vs. neutral prime at retrieval) x 2 (gender information vs. neutral information) between subject design was used. Participants learned gender (or neutral) information and at a later time had their gender identity primed (or neutral identity primed) and were then asked to recognize or recall that learned information. For the second study, a 2 (identity prime at retrieval vs. no identity prime at retrieval) x 2 (identity consistent information vs. identity inconsistent information) x 3 (positive prime at retrieval vs. negative prime at retrieval vs. no mood prime at retrieval) between subjects design was used. Participants learned gender (or neutral) information and positive (or negative) information. Later, participants had their gender identity primed (or neutral identity primed) along with a positive (or negative, or neutral) mood activation and were then asked to recognize or recall previously learned information. For the final study we propose a 2 (gender prime at encoding vs. neutral prime at encoding) x 2 (gender prime at retrieval vs. neutral prime at retrieval) x 2 (gender information vs. neutral information) between subjects design. Participants will have their gender identity primed (or neutral identity primed) by viewing an advertisement and will then be asked to view an advertisement with gender (or neutral) information on it. Later, participants will be primed with their gender (or neutral) identity and asked to recognize or recall product information.

Our first experiment explicitly demonstrated that participants have significantly more false positive recall for gender identity congruent information when gender identity is activated at recall. This effect goes away when participants are primed with a neutral identity. In experiment 2, we added positive, negative, and neutral mood as a factor. As hypothesized, we replicated experiment one and found that participants have significantly more false positive recall for female identity congruent information when a positive or negative gender identity is activated at recall than a mood neutral identity at recall. However, the effect goes away for male identity congruent information. In experiment 3, we are doing a variation on experiment 1 and adding gender identity activation at encoding to see if this has an effect on recall for identity congruent information. We predict that identity at encoding will have no effect and that gender identity at recall will inhibit recall of identity consistent brands.

Self Affirmation through the Choice of High Aesthetics

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Sanjay Sood, University of California, Los Angeles

Today marketers are keenly aware that the way a product looks significantly impacts its commercial success. Despite this, there is a lack of academic research on the role of aesthetics in product choice (see Bloch 1995; Bloch, Brunel, and Arnold 2003; Veryzer and Hutchinson 1998 for similar arguments). Here we demonstrate one way in which aesthetics impacts the choice decision differently than more functional attributes and then propose an explanation for this behavior. Specifically, we propose that the choice of highly aesthetic products is self-affirming.

Psychology research has shown that there is a universal bias to equate beauty with goodness in people. The attractiveness of an individual has positive effects on our judgments of them in other, apparently unrelated, dimensions such as how nurturing or ethical they are (Dion, Bersheid, Walster 1972) or how intelligent or mentally healthy they are (see Feingold 1992 for metanalysis). It seems possible then that this bias may exist beyond situations where the object is a person; we suggest that it may carry over to judgments of consumer goods. Moreover, we suggest that good aesthetics bestows a *beauty premium* (Hamermesh and Biddle 1994) on choice options, much like the added benefit that good looks grant a person. These amorphous "beauty premium" benefits are likely difficult to value if not identify and may not be consciously accounted for. Because of this, we predict consumers will be less responsive to changes in price for decisions involving beauty than function. Indeed, in study 1 we find that over a large range in prices, while functional attributes

exhibit negative price elasticity, aesthetics does not. In our experimental design for study 1 we address three alternative explanations for this result. Specifically, we speak to the possibility that design is considered significantly more important than price in the relevant product categories, that design is a signal of quality, and also that unlike other attributes on which consumer preferences are assumed to be uniformly distributed, for design, consumers are effectively split into two groups – those who highly value design and those who do not. Having attended to these explanations, we submit that, indeed aesthetics offers some additional and difficult to evaluate benefit.

Next we propose this benefit is related to self-affirmation. As a field, we are aware that consumers buy goods for many purposes besides the mere acquisition of tools for fulfilling specific functional roles (Gardner and Levy 1955, Levy 1959). In particular, one role of consumption that has been studied in some depth is how goods help us signal our self identity. Indeed, there is a tendency to associate product characteristics with those of the consumer (Aaker 1997, Berger and Heath 2007). Related to this, we propose that the choice of attractive products is a conduit for affirmation of the self. Claude Steele's self-affirmation theory posits that people are motivated to see themselves as competent and sensible individuals (Steele 1988). When self-integrity is threatened, affirming a central aspect of one's identity can function to restore integrity and reduce the threat to self. Importantly, Steele describes people's desire for positive self-regard as fungible; it is not compartmentalized where a threat to self in one domain requires endorsement in that same domain. Unlike a functional benefit of a product or even the more obvious and apparent benefit a consumer places on a beautiful product, affirmation of the self is likely a benefit the consumer is neither aware of nor fully understands. Accordingly, it makes sense that this benefit would be difficult to quantify and reveal itself with an unusual price elasticity. Moreover, the notion that product choice can impact feelings of self-identity intimates the strong psychological relationship between consumer and product and also proposes a strong motivator of choice.

To examine this explanation, in studies 2 and 3 we look specifically at the relationship between an individual's sense of self and their product choice when options vary on aesthetics. In study 2 we witness how a prior self-affirming task decreases the choice share of a highly aesthetic option, but has no such effect on the choice share of a highly functional option. Our explanation is that, due to self-affirmation's fungibility, the affirmation in one arena makes affirmation through choice of high aesthetics less valuable and, thus, respondents are less likely to choose the more aesthetic option after self-affirmation. Then in study 3 we reverse the order of cause and effect and observe the impact of choice of high aesthetics on subsequent behavior. A great deal of self-affirmation research looks at how self-affirmation overcomes confirmation bias and general defensive processing of information (e.g. Cohen, Aronson, and Steele 2000; Fein and Spencer 1997). People generally may allow their beliefs to bias their evaluation of situations and information but by affirming a person's sense of self, even in an entirely unrelated area, this bias can be overcome. Work by Cohen et al. (2000) demonstrates how self-affirmation has the effect of increasing a person's openness to counter-attitudinal arguments. We find that, mirroring the self-affirmation manipulation effects, choice of high design causes respondents to be more open to counter-attitudinal arguments.

With this research, we have demonstrated that products and choice can be self-affirming. Additionally these studies reveal the importance of aesthetics in consumer choice and offer an explanation for at least part of this effect. The notion that choice of highly aesthetic options affirms the decision-maker's sense of self has numerous applications and repercussions including suggesting that affirming a consumer's sense of self in an advertisement may, in fact, be disadvantageous if the product of interest is highly aesthetic.

Taking My Medicine Makes Me Feel Good About Myself: Turning Hypertension Medication Compliance into a Source of Self-Affirmation

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When people learn they have hypertension, their views of themselves may change (Charmaz 1999). How can we leverage these identity shifts to turn patients into responsible consumers of hypertension medication? This question is critical

because many patients fail to comply with their prescribed medication regimens (Stephenson 1999).

This paper starts with a simple premise: patients take actions that affirm their views of themselves. When faced with the prospect of taking medication, they may consider who they are likely to become if they do or do not take their medication as directed (Kihlstrom and Canter Kihlstrom 1999). They should then opt to take their medication if they anticipate that it will help them become someone they want to be (e.g., if they think it will help them remain active) and should opt not to take if they expect it to make them someone they do not want to be (e.g., if they think the negative side effects will restrict their social lives) (Markus and Nurius 1986). We therefore predict a positive relationship between compliance intentions and the person patients expect to become if they take their medication (a contingent “future self” or “possible self”) (Markus and Nurius 1986, 954): the better patients expect to feel about themselves if they take their medication, the more likely they are to take it as directed.

All else equal, a medication probably stands a better chance of helping patients feel good about themselves if it is more rather than less effective at controlling hypertension and its negative consequences. Thus it might seem that we should worry only about the medication’s perceived effectiveness and not about its expected impact on the self-concept. However, patients could view a medication as effective yet still expect it to worsen their self-image, perhaps because of its undesirable side effects. In such cases, a medication’s perceived effectiveness may be distinct from its anticipated effect on the future self.

The future self may impact compliance not only by itself but also in conjunction with other identities (Aquino and Reed 2002; Ashmore, Deaux, and McLaughlin-Volpe 2004). In particular, patients may be influenced by who they are now (present self) and who they were before (past self) (Kihlstrom and Canter Kihlstrom 1999). We suggest that patients need some self-affirmation but not unlimited self-affirmation. Therefore, if they obtain self-affirmation from one source (e.g., an identity), they may not need to get it from another source (e.g., medication).

What does this mean for medication compliance? Patients who think medication will negatively impact their self-image are unlikely to take it no matter what. However, patients who think medication will affect their self-image favorably will take it as long as they have no other sources of self-affirmation.

We suggest that these other sources might be past identities. For example, suppose a patient currently views herself in a positive light. If she can think of a salient identity from her past that might be responsible for her favorable self-views (e.g., a past athletic identity), she might conclude that she can use this identity for self-affirmation in the future. The patient may therefore feel little pressure to take her medication; even if it can boost her self-image, she also has an identity that can give her self-affirmation. If she cannot think of a salient past identity, on the other hand, she has no identity that can provide self-affirmation. The only alternative is to take her medication, assuming she thinks it will help her become who she wants to be. The predicted positive relationship between the contingent future self and compliance intentions should thus be weaker (stronger) when patients have a more (less) valued past athletic identity.

Now suppose a patient sees herself negatively. In this case, the patient has acquired an unfavorable self-image despite her past identities. She cannot rely on any of these identities for self-affirmation in the future, and she must find some other source. Thus the more convinced she is that medication can affirm her sense of self, the more she should intend to comply, no matter how important her past athletic identity is.

Our propositions came largely from attribution theory (Kelley 1973), which holds that people may use salient features in their environment to explain why something occurred (e.g., why their current self-image is positive or negative) (Robinson and McArthur 1982). In this case, the salient features are past identities.

To test these ideas, a cross-sectional survey, constructed based on focus groups, was administered to actual hypertension patients. First, participants reported how they currently felt about themselves. They read words they might use to describe their views of themselves (e.g., strong), and they rated the extent to which each word reflected their general self-image (present self). Next, they completed a section designed to capture the role that athletic identity previously played in their lives (past self) (“self-importance” of an identity; Aquino and Reed 2002, 1423). Using a seven-point scale, they rated how strongly they agreed with statements such as “I once considered myself an athlete.” Then we examined the extent to which participants viewed medication as a source of self-affirmation. The questions described a hypothetical patient who either did or did not take her medication as directed. Participants rated how they viewed this patient (e.g., strong or not strong), and we used their assessments as a measure of how participants expected to feel if they took their medication

(future self). Finally, we measured compliance intentions.

The results provide preliminary evidence consistent with our theory. They indicate that compliance depends on (a) the medication's ability to provide self-affirmation and (b) the availability of other means of self-affirmation. Admittedly, a more extensive study that follows patients over time and that manipulates patients' identities is necessary to confirm our propositions. Nevertheless, our current study suggests that patients consume their medication responsibly when they view it as the best means of becoming who they want to be.

Why We Give: The Affective and Motivational Foundations of Charitable Decisions

Chair: Cynthia Cryder, Carnegie Mellon University

Discussion Leader: Deborah Small, University of Pennsylvania

The Critical Link between Tangibility and Generosity

Cynthia Cryder, Carnegie Mellon University*

George Loewenstein, Carnegie Mellon University

Recent research from marketing and behavioral economics finds that people respond more generously to identified victims compared to abstract victims. For example, people are more generous towards a single, identified victim compared to a group of victims (Kogut and Ritov 2005) and compared to a single unidentified (i.e., not yet determined) victim (Small and Loewenstein 2003). People also give more when they learn identifying information about a victim such as the person's name and hometown (Bohnet and Frey 1999). The current work seeks to investigate whether these examples of identifying information that increase generosity are part of a broader phenomenon. We investigated whether tangible information, not only about individual victims, but also about general charitable needs, promotes charitable donations via increased emotional responses.

Tangible information is specific and concrete as opposed to broad and abstract. Information can be inherently tangible, such as when it is highly specific and imbued with rich detail, or, information can become tangible due to the way that it is processed. For example, information that is very psychologically near to us (i.e., close in terms of time, space, or social proximity) is processed more concretely (see e.g., Trope and Liberman 2003). Increased specificity of information and/or concreteness of processing can promote greater affective reactions. Research from a variety of domains demonstrates that information processed in a more detailed or concrete manner allows greater affective responses (e.g., Miller, Levin, Kosak, Cook, McLean and Lang 1987; Mischel and Ebbeson 1970). Such affective responses can activate the most direct path to generous behavior (see Loewenstein and Small 2007).

Experiments 1-3: Who versus How Much? Order Matters

When people decide to donate to charity, they make two basic choices: 1) How much will I donate? and 2) To whom will I give? These two choices seem straightforward; however, the order in which people make the two choices can vary with important consequences for tangibility.

If people first decide how much money to donate, the recipient is not tangible at the moment that they decide how much to give. In contrast, if people first decide to whom they wish to donate, the recipient is much more tangible at the moment when they choose an amount. Thus, we hypothesized that people would donate more when they made the 'who' decision before they made the 'how much' decision than if they made the same two decisions in the reverse order. We tested this idea in Experiments 1-3.

In Experiment 1, all participants first viewed a list of charities that they could support. Then, they made decisions about whom to support and how much to give. Participants who first picked a specific charity and second picked an amount to give were willing to give over 40% more to charity than were those who first picked an amount to give and then picked a specific charity to support. Experiment 2 revealed a similar, yet even stronger, pattern with real donations. Participants who first chose a charity donated over 300% more from their own pocket than did participants who first chose an amount. Conceptually, this effect should extend beyond the charity level. Experiment 3 tested whether a similar pattern occurred when participants chose donation targets within a single charity. In Experiment 3, participants viewed a list of funds (e.g., Food and Nutrition, HIV/AIDS, etc...) within a single charity (UNICEF) that they could support. Some participants first chose a fund to support, then chose an amount to give; other participants first chose an amount to give and then chose a fund to support. Consistent with findings from Experiment 1 and 2, participants who first picked a fund were willing to give over 45% more to UNICEF than were those who first picked an amount to give.

Experiments 4-5: Tangible Charities

Whereas Experiments 1-3 modified the tangibility of the donation target by manipulating the order of steps in the decision process, Experiments 4-5 provided potential donors with tangible information about a single charity that they could support.

In Experiment 4, participants read about either a tangible charity (“Nothing but Nets” a charity that provides mosquito protecting bed nets to families in Africa) or an intangible charity (Oxfam International, an international aid organization that provides aid to people across the globe). Next, participants decided how much, if anything, to donate to the charity that they read about. Participants who read about the tangible charity donated almost three times as much as participants who read about the intangible charity. Consistent with the hypothesized connection between tangible information and emotion, participants’ self-reports of sympathy completely mediated this difference in giving.

In Experiment 5, participants in both the intangible and tangible conditions were asked how much they wished to donate to Oxfam International. In this experiment, Oxfam was framed either in a tangible way (with detailed information) or intangible way (with broad information). Consistent with results from Experiment 4, participants who read about Oxfam framed in a tangible way donated almost twice as much as participants who read about Oxfam framed in an intangible way. Sympathy completely mediated this difference.

In sum, we observe across five experiments that as tangibility increases, either via increased specificity of the donation target (Experiments 1-3) or by increased specificity of information (Experiments 4-5), charitable donations increase as well. By providing a better understanding of tangibility and its connection to generosity, we hope to contribute to the scientific knowledge about the foundations of generosity, and also to help charitable organizations increase the amount of aid that they raise and the benefits they can provide.

From Wealth to Well-Being: Spending Money on Others Promotes Happiness

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Can money buy happiness? A large body of cross-sectional survey research has demonstrated that income has a reliable, but surprisingly weak effect on happiness within nations, particularly once basic needs are met. Indeed, while real incomes have surged dramatically in recent decades, happiness levels have remained largely flat within developed countries across time. One of the most intriguing explanations for this counterintuitive finding is that people often pour their increased wealth into pursuits that provide little in the way of lasting happiness, such as purchasing costly consumer goods. An emerging challenge, then, is to identify whether and how disposable income might be used to increase happiness.

Ironically, the potential for money to increase happiness may be subverted by the kinds of choices that thinking about money promotes; the mere thought of having money makes people less likely to help acquaintances, donate to charity, or choose to spend time with others, precisely the kinds of behaviors that are strongly associated with happiness. At the same time, while thinking about money may drive people away from prosocial behavior, money can also provide a powerful vehicle for accomplishing such prosocial goals. We suggest that using money in this fashion – investing income in others rather than oneself – may have measurable benefits for one's own happiness.

As an initial test of the relationship between spending choices and happiness, we asked a nationally representative sample of 632 Americans (55% female) to rate their general happiness, report their annual income, and estimate how much they spent in a typical month on (1) bills/expenses, (2) gifts for themselves, (3) gifts for others, and (4) donations to charity. The first two categories were summed to create an index of personal spending and the latter two categories were summed to create an index of prosocial spending. Entering the personal and prosocial spending indices simultaneously into a regression predicting general happiness revealed that personal spending was unrelated to happiness, but higher prosocial spending was associated with significantly greater happiness. When we included income in this regression, we found that the effects of income and prosocial spending were independent and similar in magnitude, while personal spending remained unrelated to happiness.

We next explored whether people who receive an economic windfall would experience greater happiness after receiving the windfall if they spend it on others rather than themselves, even controlling for happiness before the windfall. We tested this prediction by examining the happiness of sixteen employees before and after they received a profit-sharing bonus from their company. One month before receiving this bonus, the employees reported their general happiness as well

as their annual income. Approximately 6-8 weeks after receiving the bonus, participants again reported their general happiness and then reported what percentage of their bonus they had spent on (1) bills/expenses, (2) rent/mortgage, (3) buying something for themselves, (4) buying something for someone else, (5) donating to charity, and (6) other. Categories 1-3 were summed to create an index of personal spending and categories 4-5 were summed to create an index of prosocial spending. As in the first study, prosocial spending was the only significant predictor of happiness at Time 2, with personal spending, income, and bonus size failing to predict happiness.

Building on our correlational and longitudinal evidence that spending on others may promote happiness, we next demonstrated the causal impact of prosocial spending using experimental methodology. Participants (N = 46) rated their happiness in the morning, and then were given an envelope that contained either \$5 or \$20 which they were asked to spend by 5pm that day. Participants randomly assigned to the personal spending condition were instructed to spend the money on a bill/expense or gift for themselves, whereas participants assigned to the prosocial spending condition were instructed to spend the money on a gift for someone else or charitable donation. Participants were called after 5pm that day and again reported their happiness. We found only a significant main effect of spending instructions, whereby participants in the prosocial spending condition reported greater post-windfall happiness than did participants in the personal spending condition, while the amount of money participants received did not impact happiness. These experimental results provide direct support for our causal argument that spending money on others promotes happiness more than spending money on oneself.

In moving away from the traditional focus on income toward an examination of spending choices, our perspective dovetails with recent theorizing by Lyubomirsky, Sheldon, and Schkade (2005) on the architecture of sustainable changes in happiness. According to Lyubomirsky et al., the historical focus on life circumstances (e.g., income, gender, and religious affiliation) as predictors of happiness may be somewhat misplaced; because people readily adapt to the stable circumstances of their lives, circumstantial factors tend to have rather limited long-term effects on happiness levels. Thus, intentional activities – practices in which people actively and effortfully choose to engage – may represent a more promising route to lasting happiness.

Supporting this premise, our work demonstrates that how people choose to spend their money is at least as important as how much money they make.

Giving Meaning to One's Own Life by Giving to Others

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Why do people give? And how might this giving be selfishly motivated? In this research, we show that one factor that increases charitable giving is the extent to which individuals realize life is finite, a realization that triggers a motivation to make their lives meaningful. The results of four experiments demonstrate that increased salience of one's life course—either through such social experiences as losing a close other to cancer or such situational factors as the mention of time—boosts individuals' likelihood to donate to charity. We found this same pursuit of meaning in one's life that motivates giving to others also motivates individuals' tendencies to choose experiential over material purchases, as the former provide greater personal happiness.

Research on goals suggests that consumer goals follow a hierarchical pattern, ranging from low-level goals that focus on current projects to higher-level goals that focus on life themes (Mick, 2002). However, little work has been done to reveal the (a) factors that influence shifts between those goals, and (b) consequences of those shifts. Yet, such insights would be critical in informing consumer behavior research as they would shed light on more fundamental bases of consumers' choosing behavior and spending.

Extant research shows that significant social experiences can make individuals more long-term oriented (Liu & Aaker 2007), and give greater weight to emotionally meaningful pursuits (e.g., Carstensen et al. 1997). For example, having a close other die of cancer (hereafter referred to as "cancer death experience", or CDE) can make individuals more likely to choose to read an enriching magazine over an entertaining magazine and more likely to pursue a goal framed as a

“lifetime wish” over one framed as “just an idea” (Liu & Aaker 2007). Likewise, sensing an end to be near, either from aging or an approaching graduation, makes individuals more likely to choose to spend time with emotionally close friends and family members over acquaintances (Carstensen et al. 1997). Such findings raise the possibility that such experiences and time-related situational factors that highlight the finite quality of one’s life course can lead individuals to pursue the high-level goal of personal life fulfillment and overall happiness.

Drawing on these findings as well as recent work, which shows that individuals extract greater personal happiness from choosing experiential purchases over material purchases (Van Boven & Gilovich 2003) and from spending money on others over spending money on oneself (Dunn, Aknin, and Norton forthcoming), we develop our hypotheses. First, we predict that experiencing a close other die of cancer will lead to more charitable donations. Second, experiencing a close other die of cancer will also lead to choosing an experiential purchase over a material purchase. Finally, we propose that these behaviors, which are associated with greater personal happiness, are driven by the realization of one’s own life course and thus a motivation to give it greater meaning. The results of four studies support these hypotheses.

Study 1 tests the hypothesis that people with CDE are more likely to give to charitable causes. Participants were given a description of the HopeLab organization (www.HopeLab.org), and were asked for their interest in making a donation on a 1 to 7 scale. CDE was measured at the end of the survey by asking participants whether they personally know of anyone who has died of cancer (Yes/No). Indeed those with cancer death experience indicated greater willingness to give ($M = 4.04$ vs. 3.50 , $p = .04$).

Study 2 aims to shed light on the nature of this effect. Specifically, is the effect due to a heightened accessibility of death (mortality salience), or a chronic change in the person’s goal to seek meaning in one’s life? Thus, we compare the effect of an explicit situational priming of death prior to charity request, and the (implicit) presence of a cancer death experience. The cancer death experience (yes/no) measure was taken either before, or after charity requests. Across ten charity requests, we find a significant 2-way interaction: replicating study 1 result, CDE—when measured after donation intent, rather than primed before donation intent—is associated to greater giving ($M = 4.80$ vs. 4.20 , $p = .04$). However, this effect dissipated, and in fact was directionally reversed, when CDE was primed before the requests ($M = 4.19$ vs. 4.51). These results suggest mortality salience (fear or anxiety associated with death) does not drive the effect; instead, a chronic change in goals appears to have occurred.

Finally, study 3 dives deeper into the process by which CDE affects choices by manipulating, rather than measuring the focal variable of interest. We propose that life course salience, i.e., to see life as a finite time span underlies the effect. Thus priming participants of their lifespan should also increase charitable giving. Indeed, after first thinking about their best friend’s life in 50 years (rather than next week), participants significantly increased their intention to give to charities ($M = 4.92$ vs. 4.39 , $p = .04$).

This research has significant implications for understanding charitable giving in particular, and consumers’ pursuit of well-being and happiness more broadly.

The Other Side of Social Comparison: Imputing Information about Others

Chairs: Edith Shalev, New York University

Ellie Kyung, New York University

Discussion Leader: Darren Dahl, University of British Columbia, Canada

Biases in Social Comparisons: Optimism or Pessimism?

Geeta Menon, University of Pennsylvania

Ellie Kyung, New York University*

Nidhi Agrawal, Northwestern University

The tendency for people to be comparatively optimistic or pessimistic about themselves, to the point of being unrealistic, has been well-documented. But under what circumstances does the comparative optimism versus pessimism bias occur? Recent work suggests that for easy tasks, unrealistic optimism manifests and for difficult tasks, unrealistic pessimism manifests (Moore and Healy 2008.) We delve further into understanding this dichotomous bias by examining specifically how beliefs about one's own perceived control over an outcome and inferences about an other's can influence whether an optimistic versus pessimistic bias manifests. We also illustrate how narrowing the perceived distributional range of judgments for self and others – by increasing perceived similarity – can attenuate both of these biases and when it might (or might not) be desirable to do so.

In a series of four studies, we show the following: (a) Comparative optimism is likely to occur when one perceives more control over the outcome and comparative pessimism is likely to occur when one perceives less control over the outcome; (b) Both these biases can be attenuated by increasing perceptions of similarity between oneself and a comparison target person (e.g., the average undergraduate); (c) The mechanism for these effects is a change in perception of one's own control in a domain and *not* a change in perception of another person's control; (d) Under specific conditions, people are motivated to work harder in order to attain a positive outcome, thus helping managers and educators to provide the right work environment and means to do better and succeed. We illustrate these effects while controlling for outcome valence (positive outcomes), comparison target (average undergraduate at the school), as well as event domain (kept constant in each study) unlike previous research that varies these constructs to demonstrate these biases.

In Study 1, participants were asked to think of a course important to them and presented them with two grading scheme scenarios – one in which the outcome was highly controllable (e.g. final exam based primarily on class lectures) and one in which it was less so (e.g. final exam based primarily on ability to apply material to real world situations). They then rated the likelihood that they and the average undergraduate at the school were likely to get a good grade in the course (employing indirect comparative measures) and the extent to which getting a good grade in the course was in their control. The results revealed that in situations of high control, comparative optimism manifests while in situations of low control, comparative pessimism manifests. Additionally, perceptions of one's own control vary by situational context while those of the average undergraduate do not.

In Studies 2a and 2b, we examined the attenuating effect of perceived similarity between the self and the target other on these two biases. Rather than varying the target to be more or less similar to the self as in many previous studies, participants were all asked to think about the average undergraduate and consider either ways in which they were similar or different. Similar to Study 1, results indicate that comparative optimism manifests in situations of higher control (Study 2a: trivia contest on pop culture) and comparative pessimism manifests in situations of lower control (Study 2b: raffle). More importantly, we find that an increased in *perceived* similarity, even when the comparison target is kept constant, attenuates both biases.

In Study 3, we employed an experimental design similar to Study 1, but included a series of dependent measures related to motivation in the context of preparing for the course (hours spent preparing for class, likelihood of visiting professor during office hours, effort and motivation to work hard.) In lower control situations, where comparative pessimism pervades, highlighting similarities leads to greater motivation to act while in higher control situations, where comparative optimism pervades, highlighting differences leads to greater motivation to act. Mediation analysis revealed that perceptions of one's own control over these situations, and not the other's, drive this result.

Thus our studies integrate a variety of findings in extent literature by identifying outcome controllability as a variable that determines whether a comparative optimism or pessimism bias manifests, illustrating that in the face of uncertain information about others, highlighting perceived similarity can attenuate these biases. Furthermore, information about similarity or differences with others leads to changes in the perception of one's own control rather than that of the other person – people appear to use information by others to update information about themselves. Clarifying the roles of outcome controllability and perceived similarity in these comparative biases allows us to specify how situations can be framed to motivate desired behavioral action, such as in domains of education, employee incentive schemes, and beneficial public behaviors.

It's Not Just Me: The Role of Inferences about Reference Distributions on Estimates of One's Own Comparative Performance

Andrew Gershoff, University of Michigan
Katherine Burson, University of Michigan*

Research exploring how people make estimates about themselves compared to others has found systematic biases. For instance, easy tasks produce unrealistic optimism while difficult tasks produce unrealistic pessimism. Researchers have generally argued that these biases are due to participants' errors in combining the information about themselves and others into percentile estimates: People focus primarily on information about themselves and fail to incorporate information about the reference group (i.e. Kruger & Burrus 2004).

In four studies, we show that judges do attend to others when evaluating their relative standing, but that they tend to believe that others are distributed dispersly across the possible outcomes. Especially for easy or difficult tasks, the true distributions of performance are actually skewed. The first study illustrates how this simple misestimation can explain optimism and pessimism. We then demonstrate that participants do indeed incorporate these beliefs about others into their comparative assessments. In studies 2-4, we are also able to show that participants' perceptions of the reference group are labile. We demonstrate that simple availability manipulations can change the perceived dispersion of others and subsequently change estimates of relative standing.

In study 1, we gave participants one difficult, one moderate, and one easy quiz about everyday knowledge. Participants estimated their own score, provided us with their perception of distribution of others' performances on each quiz, and estimated their own relative standing. As predicted, participants were pessimistic on the difficult quiz, unbiased on the moderate quiz, and optimistic on the easy quiz. However, inspection of the estimated distributions revealed that they were significantly more disperse than the actual distributions of performance. To examine whether participants showed optimism and pessimism because they ignored others' when forming their relative perceptions, we created a new variable we call "should standing": Given each participant's estimated score and estimated distribution of others, we calculated the percentile that each participant should have estimated. This variable contained both information about the participant's expected score and the distribution of performance in which that score lay. As predicted, regressions showed that participants' optimism and pessimism was explained by both their beliefs about their own scores and the distribution of scores. Specifically, the "should standing" fully mediated the relationship between estimated score and estimated percentile.

The next three studies also show that participants incorporate beliefs about others into their relative assessments. However, these studies also extend the results of the previous study to show how trivial manipulations can influence perceptions of the reference group and hence optimism and pessimism.

In study 2, we asked participants how far they could putt in golf, how many Trivial Pursuit questions out of 20 they could answer correctly, and how many cell phone minutes they used per month. This time, the perception of the distribution of others for each of the three domains was manipulated. We varied the granularity of the scales. For instance, for trivial pursuit, one condition estimated the scores of the reference group on a scale that highlighted poor performance (0 correct, 1 correct, 2 correct, ...6-10 correct, 11-15, etc.) while the other condition estimated others' performances on a scale that highlighted good performance (0-5 correct, 6-10 correct, 11-15 correct, 16 correct, 17 correct, 18 correct, etc.). Similar scale-granularity manipulations were used in the other two domains. As predicted, percentile estimates were significantly

shifted by the scale manipulation. When low numbers on the scale were highlighted, participants tended to estimate that more of their reference group fell in this area of the scale than when the high numbers were highlighted. Furthermore, it was participants' incorporation of these distributional beliefs that explained their optimistic and pessimistic relative estimates.

Studies 3 and 4 manipulated perceptions of the distribution by manipulating the availability of distributional extremes. Study 3 asked participants to imagine others who would perform worse than them at golf. When it was difficult to imagine those individuals, pessimism was strong. However, when it was easy to imagine those individuals, participants were more optimistic. Study 4 showed participants a website for products for short or tall consumers. Participants examining the "short" website were more optimistic about their own relative height than those viewing the "tall" website. Once again, inspection of the perceived distributions of others showed that the manipulations produced a significant shift in these perceptions and it was these perceptions that explained relative estimates.

These experiments show that participants can incorporate beliefs about others into their percentile estimates and strongly suggest that inaccurate estimated distributions are to blame for relative miscalibration. If these perceptions of relative standing are inaccurate, so may be purchases. But, if marketers anticipate that people are likely to imagine referent distributions as normal, they may be able help them make better decisions.

How Low Can I Go? Following Inferior Others in Response to Unfavorable Downward Comparisons

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Vicki Morwitz, New York University

People utilize information about others to calibrate their standards of aspiration (Festinger, 1954; Wood, 1989). Some individuals serve as a high standard to aspire for (Wheeler, 1966; Arrowood and Friend, 1969; Brickman and Bullman, 1977) while others serve as a low standard to stray away from (Alicke, 2000). Consistent with this notion, evidence suggests that consumers follow the choices of certain individuals they look up to or wish to be associated with (Escalas and Bettman, 2003; Escalas and Bettman, 2005). However, less is known about consumers' reaction to those individuals they look down upon – individuals that mark the lower range of the consumer's referent distribution.

The current paper proposes that consumers are sensitive to information about the purchases of others they look down upon. When the purchases of supposedly inferior others suggest their personality traits surpass expectations, the observing consumers update their perception of the referent population and their own relative standing in it (Studies 2 and 3), and adjust their purchase intentions of the product in question (studies 1, 2, 3). We hypothesize that consumers conclude from such surprising observations that the lower limit of the referent distribution has shifted and hence the referent population's new mean is higher. The process only affects the buying intentions of consumers who consider the product-related attribute important or self-relevant (study 4).

In study 1, participants rated their buying intentions and attitudes towards a premium organic sandwich. Participants in one group learned about a customer of that sandwich with ostensibly high health awareness (a fit woman wearing a gym outfit). Participants in the other group learned about a customer with ostensibly low health awareness (an overweight woman in ordinary clothing). The two customers were viewed to be different on health awareness yet comparable on other important dimensions such as likeability and credibility. Participants reported greater purchase likelihood and judged the price premium to be fairer following exposure to the overweight woman than to the fit athletic woman.

Why were consumers more likely to follow the seemingly non health aware consumer in their choice of an organic food product? The results of study two suggest that observing an organic food consumer, who's supposed to fair low on health awareness, signals the observer that the health awareness standard has changed. Attempting to explain the surprising observation, the observer concludes that the average consumer is now more health aware than in the past. And in order to maintain his former relative standing on health awareness, the observer has to try harder, possibly by purchasing more healthy products.

In study 2, we asked participants again to rate their buying intentions towards a premium organic sandwich and also their relative standing on health awareness compared to the average American consumer. This time, participants learned that the security guard or their successful classmate purchased an organic sandwich. Participants in the "security guard"

condition rated their relative health awareness as lower than those in the “successful classmate” condition and accordingly, were more likely to purchase the organic sandwich. This effect was replicated in study 3 using an apparel brand that was associated with sophistication and independent thinking. Participants had greater buying intentions towards the brand when a grocery packer owned it than when a creative college student owned it. Participants in the grocery packer condition also rated a neutral person whose identity is ambiguous as more sophisticated than in the creative student condition.

Study 4 further generalizes the results to the music players’ domain and shows that the surprising consumer effect only affects consumers who consider the product-related attribute important or self-relevant. Participants in one group learned that a 47-year old grocery packer has purchased an innovative, expensive MP3 player. Participants in the second group learned that a 25-year old architect purchased it. The grocery packer and architect were viewed to be comparable on most characteristics except social status and perceived innovativeness. Participants for whom innovativeness was important had higher mean purchase likelihood following exposure to the grocery packer than to the architect. Participants that regarded innovativeness as less important were not affected by the observed consumer manipulation.

In sum, we show across studies that a single individual from the lower range of a referent population can greatly influence (a) consumer perceptions of the entire referent distribution and in turn (b) increase their buying intentions. These findings have important managerial implications because they suggest that product adoption processes may be faster if advertising and promotion plans include target populations that are traditionally neglected. Finally, the research contributes to the growing body of knowledge on social comparison processes between consumers. Since our findings cannot be accounted for by classic predictions of reference group theory, they open challenging avenues for future research.

Anticipated and Experienced Emotions: How Do They Affect Consumer Choice?

Chair: Neel Das, Appalachian State University

Differential Effects of Positive Emotions on Consumption Behaviors

Karen Winterich, Texas A&M University*

Kelly Haws, Texas A&M University

Exhibiting control over one's behavior is affected by both cognition and emotion, as well as the interplay between the two (Hoch and Loewenstein 1991; Shiv and Fedorikhin 1999). Research has sought to increase understanding of the role of affect in consumption self-control, with research regarding the effects of positive affect on consumption gaining recent attention (Fedorikhin and Patrick 2008; Labroo and Patrick 2008). The most prominent relationship proposed between positive affect and consumption self-control is that positive mood enhances consumption self-control. However, other research indicates positive affect may result in impulsive behaviors that conflict with consumption self-control (Bless et al. 1990; Rook and Fisher 1995). Further complicating the understanding of the impact of positive affect on consumption is that discrete positive emotions (rather than moods) have received scant attention from researchers. Researchers have examined discrete negative emotions, finding that they differentially impact consumption self-control (Chun, Patrick, and MacInnis 2007; Zemack-Rugar 2008) and forgoing the conclusion that negative affect always diminishes self-control. As such, a more nuanced approach to the role of positive affect on consumption may very well facilitate the resolution of previous findings. We focus on two discrete positive emotions with much relevance to consumption behaviors, hope and happiness.

Based on cognitive appraisal theory, hope is characterized by uncertainty and situational control whereas happiness is characterized by certainty and individual control (Smith and Ellsworth 1985). These opposing cognitive appraisals suggest that these emotions may carryover to differentially impact behaviors according to the appraisal-tendency framework (Lerner and Keltner 2000). Furthermore, Snyder et al. (1991) state that hope is characterized by cognitive goal-directed determinations and finding pathways to achieve goals, resulting in a focus on the future (also see MacInnis and de Mello 2005). Happiness, which is typically associated with a present focus, has been shown to increase confidence in current thoughts (Briñol, Petty, and Barden 2007). We argue that the future orientation of hopefulness will result in greater self-control than happiness, which is focused on the achievement of current goals (e.g., mood maintenance). As such, we predict differences in consumption self-control for the two distinct positive emotions of hopefulness and happiness based on their cognitive appraisals.

In Study 1, emotion was induced using a writing task modified from Lerner and Keltner (2001) in which participants were asked to write about the one thing that makes them most happy or hopeful, or their typical evening (neutral condition). Manipulation checks verified the effectiveness of the emotion inductions. At the start of the emotion induction, participants (N = 142) were given a bowl containing 50 grams of pretzels (2.5 servings) said to be a thank you completing the studies. After participants completed the emotion induction and filler tasks, the session concluded and each participant's pretzel consumption was measured. An ANCOVA indicated that emotion condition was a significant predictor of pretzel consumption ($F(2, 141) = 5.66, p < .05$). Examining pretzel consumption by emotion condition (controlling for time of day and BMI), we found that individuals in the happy condition ate significantly more pretzels than those in the hope condition ($M = 40.89_{\text{happy}}$ vs. 28.34_{hopeful} , $t = 3.36, p < .05$), indicating that hopefulness results in greater self-control than happiness. Importantly, hopeful individuals also ate marginally fewer pretzels than those in the neutral condition ($M_{\text{neutral}} = 34.89, t = 1.72, p = .08$), indicating that hope may result in greater self-control not only compared to happiness but also to a neutral state.

In Study 2, we extended our investigation to examine the impact of the type of product (i.e., hedonicness) on the discrete positive emotions/self-control link. We theorized that participants in a positive emotional state characterized by certainty, effort minimization, and a focus on the present (i.e., happiness) will be less likely to consider long-term goals and will have greater consumption of hedonic products than those in a positive emotional state characterized by uncertainty, a desire to expend effort, and a focus on the future (i.e., hope). However, consumption of non-hedonic products should not be perceived to negatively influence long-term goals. While the pretzels used in study 1 were intended to represent a

somewhat neutral, that is, not an overly hedonic nor completely non-hedonic snack, we wanted to test two different foods more distinctly perceived as either hedonic (unhealthy, but pleasurable) or functional (more healthy, less pleasurable). Therefore, we adopted foods used by Garg et al. (2007)—raisins and M&Ms—and pretests confirmed the relative hedonicness of all three snacks (with pretzels being perceived as more neutral).

Study 2 (N = 114 students) followed the same procedure as Study 1 except for participants were given two bowls of snacks, one containing M&Ms (60 grams) and one containing a perceptually similar amount of raisins (50 grams). A repeated measures ANCOVA (again, with time of day and BMI as covariates) indicated the expected significant interaction between food type and emotion condition ($F(2, 111) = 3.62, p < .05$). Participants in a happy state consumed a significantly larger portion of the hedonic food than those in a hopeful state ($M = .72$ vs. $.54, t = 2.32, p < .05$). In contrast, those in a happy state did not consume a larger portion of the less hedonic food than those in a hopeful state ($M = .42$ vs. $.43, t = -.15, NS$). These results demonstrate that different positively-valenced emotions do not differentially influence consumption of a less hedonic food whereas incidental happiness can have a detrimental impact on consumption self-control for hedonic products compared to hopefulness.

Further research underway examines the role of temporal focus more directly while also illuminating effects based on another positive emotion—pride. Overall, our results have important implications for the impact of positive emotions on consumers' self-control. For instance, if one experiences happiness after losing five pounds of a 20-pound weight loss goal, these results suggest he or she may be more likely to indulge than an individual who experiences hopefulness from losing the first five pounds. Taken together, our experiments demonstrate that discrete positive emotions can impact a consumer's ability to exercise self-control. Happiness appears to lower self-control while hope tends to increase or at least maintain overall self-control.

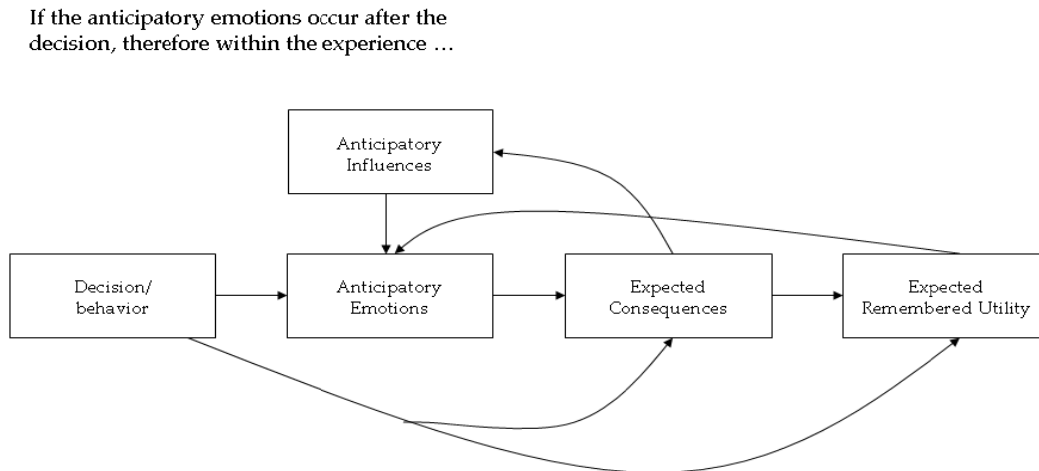
Anticipating Anticipatory Emotions

Elizabeth Cowley, University of Sydney, Australia*

If there is one thing we should be good at, it is forecasting our own affective reactions. After all, we have a life time of data to draw upon. Surprisingly, research has shown that people are not particularly accurate in their affective forecasts (Buehler and McFarland 2001; Loewenstein and Fredrick 1997; Wilson and Gilbert 2003; 2005). To explain the inaccuracies in affective forecasts when decisions involve risk and uncertainty, Loewenstein, Hsee, Weber, and Welch (2001) make a distinction between anticipated emotions and anticipatory emotions. Anticipated emotions are predicted reactions to the outcome of the decision, such as regret. Anticipatory emotions are immediate visceral reactions felt while making a decision, such as fear and anxiety. In Loewenstein and Lerner's (2003) model, anticipatory emotions can have an effect on the anticipated emotions. For example, positive anticipatory emotions may lead to the forecasting of more positive anticipated emotions.

It is proposed here that anticipatory emotions may also occur after the decision, therefore becoming part of the experience (see figure 1). For instance, if the degree of uncertainty about the outcome changes during the experience, immediate visceral reactions – such as anxiety – need to be anticipated in an affective forecast. The research presented here investigates whether people are accurate at anticipating anticipatory emotions and forecasting the effect of their retrospective evaluation of an experience. It is hypothesized here that there will be a mismatch between the forecast and the retrospective evaluation which can be explained by the misspecification of the anticipated anticipatory emotion. Specifically, the anticipatory emotion resulting from increased uncertainty will be forecast as excitement, which is associated with a more positive affective forecast, but the realized anticipatory emotion will be anxiety, which will negatively impact the retrospective evaluation of the event.

Figure 1
Anticipatory Emotions as Part of an Uncertain Experience



Uncertainty was operationalized by varying the hedonic profile of the experience. Participants chose between a mixed hedonic profile with moments of both pleasure and pain (more uncertainty), and a monotonic hedonic profile with moments of either pain or pleasure (less uncertainty)².

A 2 x 2 within subject design with outcome (win, loss) and hedonic profile (mixed, monotonic) was used. Two sets of two scenarios were provided to 145 participants. In the win (loss) scenarios the participant is winning (losing) while playing a gaming machine. Each set has one scenario with a monotonic profile and another with a mixed profile. Without knowing the outcome, participants are asked which scenario they would prefer and are asked to forecast the degree of excitement, anxiety, uncertainty, and resignation they would feel on continuous scales. The losing set of scenarios was as follows:

Imagine that you have 30 minutes of spare time to play a poker machine in both cases, but on different days.
 Scenario A – you gradually lose \$10.00 in the first 15 minutes of the gaming session. You still have 15 minutes to play.
 Scenario B – you win some of the gambles and lose other gambles in the first 15 minutes, but overall you have lost \$10.00. You still have 15 minutes to play.
 Which scenario would you rather be in? Scenario A or Scenario B

When the scenarios described a losing situation, the majority of participants selected the mixed profile (79.45%). The mixed profile (B) was forecast as likely to evoke more excitement, but no more anxiety. When the scenarios described a winning situation, participants were equally likely to select the mixed profile B (43.15%) compared to the monotonic profile A (56.85%). In the winning set, the mixed profile did not elicit more anxiety or excitement.

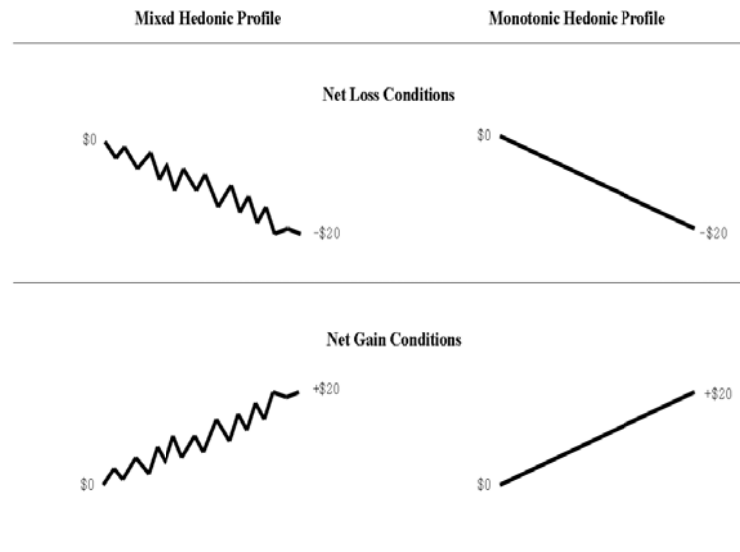
How accurate are the affective forecasts in study 1? The accuracy of the forecast will be tested by comparing the forecasts in study 1 with the retrospective evaluation of the experience collected after the experience.

A 2 x 2 between subject design with outcome (win, loss) and hedonic profile (mixed, monotonic) was used. Eighty three gamblers were recruited from a gaming establishment. Participants played simulated poker machines for approximately 20 minutes. Wins and losses were pre-programmed. Players in the mixed condition won for a number of gambles, and then lost for a number of gambles such that their credit meter followed the profiles in figure 2.

Results: An ANOVA run on retrospective evaluations revealed a significant main effect for profile: participants remembered a more pleasant experience in the monotonic conditions ($M_{\text{monotonic}} = 72.43$, $M_{\text{mixed}} = 48.10$) in both the winning and losing conditions. Therefore, losers were not accurate in their forecast as most chose the 'exciting' mixed

² The uncertainty manipulation appears to have worked as the mixed sets were forecast to elicit more feelings of uncertainty.

Figure 2
Hedonic Profiles for Study 2



profile in study 1, but preferred the monotonic profile in study 2. Even the winners underestimated the impact of the anxiety on the experience in study 1, as 100% of the study 2 players in the monotonic experience reported enjoying the experience (retrospective evaluation over 50 on a 100 point scale), while only 48% of the players in the mixed profile reported enjoying the experience.

Consumers use affective forecasts when faced with consumption decisions. Some researchers have suggested that maximizing remembered utility is a determinant of choice (Kahneman, Wakker, & Sarin 1997). The research presented here suggests that consumers may not maximize their remembered utility because they anticipate excitement in experiences with uncertain outcomes, but experience and remember anxiety. In fact, remembered utility is maximized when uncertainty is minimized, but this is clearly in contradiction to the implicit theory used by consumers. The results add to a growing body of research indicating that consumers are not particularly accurate at identifying what will make them happy. This is unsettling for marketers for two reasons. First, they spend time and money asking consumers what they want, assuming that their responses are valuable information. Second, marketers that meet consumers' desire for excitement by promising mixed hedonic profiles are in danger of reducing consumers' remembered utility if they deliver as promised.

Buehler, Roger and Cathy McFarland (2001), "Intensity Bias in Affective Forecasting: The Role of Temporal Focus," *Personality and Social Psychology Bulletin*, 27(11), 1480-1493.

Kahneman, D., Wakker, P. P. & Sarin, R. (1997). 'Back to Bentham? Explorations of experienced utility. *Quarterly Journal of Economics*, 112, 375-405.

Loewenstein, George and Shane Frederick (1997), "Predicting Reactions to Environmental Change," in *Environment, Ethics, and Behavior: The Psychology of Environmental Valuation and Degradation*, Max H. Bazerman, David M. Messick, Ann E. Tenbrunsel, and Kimberley A. Wade-Benzoni, eds. San Francisco, CA: The New Lexington Press/Jossey-Bass, 52-72.

Loewenstein, George and Jennifer S. Lerner (2003), "The Role of Affect in Decision Making," in *Handbook of Affective Sciences.*, Richard J. Davison, Klaas R. Scherer, and H. Hill Goldsmith, eds. New York, NY: Oxford University Press, 619-642.

Loewenstein, George, Elke U. Weber, Christopher Hsee, and Ned Welch (2001), "Risk as Feelings," *Psychological Bulletin*, 127 (2), 267-286.

Wilson, Timothy D. and Daniel T. Gilbert (2003), "Affective Forecasting," in *Advances in Experimental Social Psychology*, Volume 35, Mark P Zanna, ed. San Diego, CA: Academic Press, 345-411.

Wilson, Timothy D. and Daniel T. Gilbert (2005), "Affective Forecasting: Knowing What to Want," *Current Directions in Psychological Science*, 14 (3), 131-134.

An Ontological Investigation of the Sources of Regret: Effects of Consumer Expertise

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Regret is a negative emotion arising when one compares what is with what might have been (Connolly and Zeelenberg 2002; Sugden 1985). Such a comparison is likely to relate to both the decision-making process and the product resulting from the decision-making process. Researchers have investigated regret resulting from either an unfavorable product choice or a faulty decision-making process. We posit that regret is a combination of both, the decision-making process and the product choice.

A concurrent examination of these sources of regret enables us to posit that for the same decision action, different individuals may regret the sources differently. Specifically, we show that when the decision-making process is the source of regret, experts, as compared to novices, will experience greater regret. On the other hand, when the product is the source of regret, novices will experience greater regret.

EXPERTISE AND REGRET: Experts possess the knowledge to assess and make a decision regarding a product in a specific usage context (Brucks 1985). Such knowledge implies greater awareness of and comprehension regarding the available alternatives (Mitchell and Dacin 1996). Hence, experts are likely to be more responsible (Shanteau 1998) regarding one's decision-making leading to a product choice. Greater responsibility leads to greater regret, subsequent to an unfavorable outcome (Zeelenberg et al. 1998). Hence, following a regrettable decision-making process, experts are likely to experience greater regret.

When a product is the source of regret, it represents post-purchase knowledge about the existence of a better performing alternative. However, it is rare for an individual to possess complete information regarding the entire gamut of choices. Hence, when an expert becomes aware of a better performing product, s/he might feel less responsible (since the presence of the product might be attributed to chance) and experience less regret. A novice, having relatively less knowledge regarding the alternatives, is likely to feel more responsible for not conducting a thorough search and ultimately experience greater regret.

The notion of counterfactual thinking helps us understand the pattern of regret experienced due to expertise. The more readily counterfactuals come to mind, the more regret is experienced (Landman 1993). Experts are likely to generate more counterfactual thoughts compared to novices, when the decision-making process is regrettable. Novices are likely to generate more counterfactual thoughts relating to the product compared to experts when the product is regrettable.

METHODS AND RESULTS: To test the above notions, we used a 2 (expertise: expert vs. novice) X 2 (source of regret: product vs. decision making process) between subjects design where participants were instructed to imagine buying a laptop. Expertise was manipulated as a self-reported measured variable. The source of regret was manipulated by stating that post-purchase, either the decision-making process for choosing the brand was not well justified or the product failed to deliver.

The analysis was conducted with 88 respondents (median age: 21; 48% females). Independent sample t-tests revealed that experts had more knowledge ($M_{\text{EXPERT}} = 5.60$, $M_{\text{NON-EXPERT}} = 3.61$; $t(85) = -8.995$, $p < .001$) and were more informed ($M_{\text{EXPERT}} = 5.56$, $M_{\text{NON-EXPERT}} = 3.56$; $t(85) = -8.939$, $p < .001$) about laptops.

A 2 X 2 MANOVA revealed a multivariate interaction (Wilk's Lambda = .903, $F_{(2, 83)} = 4.45$, $p < .05$) due to the univariate interaction on regret due to the decision-making process ($F_{(1, 84)} = 8.901$, $p < .05$). When the decision-making process was regrettable, greater regret was experienced by experts ($M_{\text{EXPERT}} = 6.05$, $M_{\text{NON-EXPERT}} = 5.10$; $t(26) = -3.099$, $p < .05$). When the product was regrettable, there was no difference in felt regret between experts and novices ($M_{\text{NON-EXPERT}} = 6.0505$, $M_{\text{EXPERT}} = 6.0494$; $t(58) = -.004$, $p > .05$).

A 2 X 2 MANOVA on counterfactuals generated due to the process and product again revealed a multivariate interaction

(Wilk's Lambda = .912, $F_{(2, 83)} = 3.999$, $p < .05$) due to the univariate interaction on counterfactuals generated due to the decision-making process ($F_{(1, 84)} = 7.107$, $p < .05$). When decision-making process was regrettable, experts generate more counterfactuals ($M_{\text{EXPERT}} = 5.79$, $M_{\text{NON-EXPERT}} = 4.57$; $t(26) = -3.391$, $p < .05$). When the product is regrettable, there was no difference in the generation of the counterfactuals between experts and non-experts ($M_{\text{EXPERT}} = 4.95$, $M_{\text{NON-EXPERT}} = 5.13$; $t(58) = .553$, $p > .05$). Although H2 is also partially supported, these findings converge with results obtained in the test for H1.

DISCUSSION: Thus when the decision-making process was the source of regret, experts encounter greater regret. However, we did not find any difference in the regret experienced by novices vis-à-vis experts when the product was regrettable. Earlier we had postulated that experts are likely to regret the product less (when the chosen product is regrettable) than novices because they might simply believe the existence of a better alternative as matter of luck or chance. The same reasoning might apply for novices too. Given that a decision is made under uncertainty, the role of chance, applicable to *anyone*, is something that cannot be ignored. Hence, while both experts and non-experts regret the existence of a better-performing product, they do not indicate a difference in the felt emotion.

Our research allows researchers to get a better understanding of the likely behavioral consequences resulting from the regret emotion. For instance, Tsiros and Mittal (2000) conclude that regret has a direct inverse influence on re-purchase intentions. Zeelenberg and Pieters (2004) further show that regret has a direct positive relationship with switching intentions. Our research points to a boundary condition of these findings: an expert might not express lower re-purchase intentions or higher switching intentions if regret arises from the decision-making process and the expert attributes the blame to him or herself.

- Brucks, M. (1985). The Effects Of Product Class Knowledge On Information Search Behavior. *Journal of Consumer Research*, June, 1 – 16.
- Connolly, T. & Zeelenberg, M. (2002). Regret in Decision Making. *Current Directions in Psychological Science*, 11(6), December, 212 – 216.
- Landman, J. (1993). Regret: The Persistence of The Possible. New York, Oxford University Press.
- Mitchell, A. A. & Dacin, P. A. (1996). The Assessment of Alternative Measures of Consumer Expertise. *Journal of Consumer Research*, 23 (December), 219 – 239.
- Shanteau, J. (1988). Psychological Characteristics And Strategies Of Expert Decision Makers. *Acta Psychologica*, 68, 203 – 215.
- Sugden, R. (1985). Regret, Recrimination and Rationality. *Theory and Decision*, 19 (July), 77 – 99.
- Tsiros, M. and Mittal, V. (2000). Regret: A Model of Its Antecedents and Consequences in Consumer Decision Making. *Journal of Consumer Research*, 26 (June), 401 – 417.
- Zeelenberg, M., van Dijk W. W., & Manstead A. S. R. (1998). Reconsidering The Relation Between Regret And Responsibility. *Organizational Behavior and Human Decision Processes*, 74, 254-272.
- Zeelenberg, M. & Pieters, R. (2004). Beyond valence in customer dissatisfaction: A review and new findings on behavioral responses to regret and disappointment in failed services. *Journal of Business Research*, 57, 445 – 455.

SCP Dissertation Proposal Competition Award Winners

Chairs: Maria Cronley, Miami University, Ohio
Peggy Sue Loro, Gonzaga University

Winner - *I'll Have What She's Having: The Social Influence of Obese Consumers on the Food Choices of Others*

Brent McFerran, University of British Columbia, Canada*
Darren W. Dahl, University of British Columbia, Canada
Gavan J. Fitzsimons, Duke University
Andrea C. Morales, Arizona State University

This research examines how obese consumers affect the food consumption of others around them. Study 1 shows that when a confederate first selects a large quantity of food, participants choose and consume more when the confederate is thin versus obese. However, when a confederate selects a small portion, participants choose and consume more when the confederate is obese versus thin. Study 2 demonstrates how these effects hold for healthy food. Study 3 shows that the effects are generally more pronounced for consumers low versus high in appearance self-esteem and when cognitive processing resources are not constrained. Implications for theory, policy and public health are also discussed.

Honorable Mention - *Customer-Brand Identification as a Sustainable Competitive Advantage: A Multinational and Longitudinal Examination*

Son Lam, University of Houston*
Michael Ahearne, University of Houston
Niels Schillewaert, Insites Consulting, Belgium

Previous marketing research has been struggling to find a variable that might be more predictive of customer loyalty than customer satisfaction in competitive markets. Drawing from the literature on customer-company identification and brand health, this dissertation fills this void by proposing that customer-brand identification (CBI), defined as the customer's perception, emotional significance, and value of sharing the same self-definitional attributes with a brand, constitutes a sustainable competitive advantage. Compared with either perceived value or switching costs, CBI is expected to be more predictive and enduring in explaining brand health, both current health under normal market conditions and brand resistance under abnormal circumstances. Two empirical essays explore this research proposition and its boundary conditions in multi-cultural and longitudinal contexts.

Honorable Mention - *Ironic Effects of Goal Activation on Choice*

Kelly Goldsmith, Yale University*

Consumers hold multiple goals, some of which may conflict. This dissertation explores how choices in the service of one goal (e.g., indulgence) are impacted when a conflicting goal (e.g., health) is incidentally activated prior to the decision. My dissertation reveals that consumers experiencing such goal conflict become more likely to choose options that are easier to justify. This can lead to ironic results when the option that is easier to justify poses greater conflict to the incidentally activated goal. A series of studies support my proposed process, demonstrating boundary conditions and moderators.

Interpersonal Persuasion, from the Overt to the Covert

Chair: Michael Norton, Harvard University

Discussion Leader: Kathleen Vohs, University of Minnesota

Symposium Overview

Influence is, in some sense, the ultimate goal of interpersonal interactions. People want to convince others that what they are saying is credible, that what they believe is right, and that what they are selling – from products to themselves – is worth buying. While it is natural to feel a strong pull to be persuaded by someone when that person is an intimate other, there is very little reason to do so otherwise. Yet, people often do – hence, consumer behaviorists' longstanding fascination with interpersonal persuasion. The current talks tackle this topic by conceptualizing persuasive processes as arising from the interpersonal nature of persuasion, with each talk exploring a different facet of the social nature of persuasion, from attempts to solicit charitable donations, to gaining compliance with requests, to shaping other's views of oneself.

The first two talks investigate overt attempts at interpersonal persuasion – people coping with direct appeals from others. Norton and colleagues explore an ironic form of interpersonal persuasion, showing that members of stigmatized groups – Black confederates and confederates seated in wheelchairs – can actually be more persuasive in face-to-face interactions due the efforts of majority group members to make such interactions proceed smoothly. Vohs and colleagues test whether classic cases of interpersonal persuasion – e.g., foot-in-the-door and lowball techniques – are effective because these persuasive appeals deplete self-regulatory resources, leaving the target susceptible to subsequent appeals. The second two talks then move to exploring more covert forms of interpersonal persuasion, with social influence brought to bear more indirectly. Goldstein and colleagues demonstrate how the norm of reciprocity – usually seen as a driver of compliance between two people – can also be invoked vicariously, such that seeing a stranger perform a favor for a friend invokes a sense of obligation in the observer as though the stranger had performed the favor directly for the observer. Finally, Ferraro and colleagues demonstrate that people can shape the attitudes of others toward themselves through their subtle display of brands, covertly influencing other's liking for the self not through direct appeals but by signaling via product choices.

Vohs and Norton will lead a discussion at the conclusion of the symposium which seeks to integrate the talks – unpacking similarities and dissimilarities between overt and covert persuasion processes – with an emphasis on future directions in this broad area of research.

Note: All participants have agreed to present if the symposium is accepted. Each of these papers is an advanced stage of completion, with most under review and one in press.

The Persuasive Appeal of Stigma

Michael Norton, Harvard University*

Dana Carney, Columbia University

Elizabeth Dunn, University of British Columbia, Canada Dan Ariely, Duke University

Interactions between members of stigmatized groups and member of majority groups are fraught with opportunities for things to go awry: Stigmatized individuals must worry that the majority group member holds prejudiced attitudes which can lead to discriminatory behavior, while their non-stigmatized counterparts may worry about violating norms of political correctness. While the anxiety that members of majority groups experience too often serves as a convenient excuse to avoid interactions with stigmatized individuals, we propose that this same anxiety – and the increased self-presentational concerns that result – can in some cases lend stigmatized individuals persuasive power when such interactions occur. In two studies, we explore how self-presentation produces persuasion in such interactions, demonstrating that appeals from two different stigmatized groups – individuals with disabilities and Blacks – can be more persuasive than identical appeals delivered by non-stigmatized individuals in face-to-face interactions. We further examine how decreasing self-presentational pressures alters this dynamic, expecting this persuasive power to manifest only in face-to-face interactions, but not when appeals were delivered through other more impersonal media – an important consideration for marketers. Finally, we examine the scope of the impact, in two ways. First, we explore whether this appeal extends only to

stigma-relevant issues or to a wider array of issues. Second, we investigate whether desires to be politically correct lead merely to surface behaviors such as acting more agreeably, or to actual persuasive impact such as leading people to donate more money and change their attitudes as a result of these appeals.

In Study 1 – a field study – participants were randomly assigned to interact with a white male confederate seated either in a wheelchair or in a standard chair who 1) sold “awareness pins” and solicited money for one of four charities, and 2) also tried to affix the pins to participants’ clothing. One of the charities was stigma-relevant (increased transportation options for the disabled), two were not stigma-relevant but plausible (donations to victims of the Myanmar cyclone or donations to poor Chinese people due to a rice shortage there), and the final cause was implausible (donations to middle-class Americans due to the rice shortage in China).

Overall, some 79% of participants purchased a pin in the wheelchair condition, while only 58% did so in the no wheelchair condition. This trend was similar in magnitude regardless of the specific charity, demonstrating support for the general impact of stigma rather than impact specific to a stigma-relevant issue (transportation for the disabled), an impact which extended even to a somewhat implausible cause (donating money to middle class Americans for a rice shortage in China). In addition, if participants agreed to purchase a pin, our confederates first asked them whether they could help them pin it on, and recorded whether the participants let them help, pinned it on themselves, or did not wear the pin. Overall, some 28% of participants who purchased a pin wore the pin in the wheelchair condition; in contrast just 4% did so in the no wheelchair condition.

Study 2 had two primary aims. First, in order to demonstrate the persuasive appeal of stigma with another group, we asked Black and White confederates to deliver persuasive appeals; in this study, confederates attempted to persuade undergraduates to support comprehensive exams as a requirement for graduation from their university. Second, in order to demonstrate the role of self-presentational concerns in driving the increased persuasive impact of stigmatized individuals, we altered the self-presentational demands endemic to face-to-face interaction. We asked some participants to interact with Black and White confederates, expecting to demonstrate the persuasive impact of Black over White confederates in such face-to-face contexts; in addition, however, we asked some participants to watch these same confederates deliver their appeals on videotape – mirroring other research exploring the effectiveness of spokespeople of different ethnicities – expecting this manipulation to eliminate the difference in persuasive appeal of Black and White confederates. As predicted, participants were significantly more persuaded by Black than White confederates in face-to-face interactions. In contrast, there was no difference in persuasion for participants who watched the confederates on video.

Taken together, these studies suggest that the discomfort that members of majority groups feel when interacting with members of stigmatized groups can in some cases have the ironic consequence of lending members of such groups persuasive power.

Why Do People Fall Prey to Social Influence Techniques? A Limited-Resource Account of Compliance

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How social influence techniques work has fascinated scholars for over forty years. Cialdini asserted that all influence techniques aim to lure targets into a state of automaticity or “mindlessness”. In these states, targets are prone to employ norms that increase compliance rates. We propose that such mindlessness comes about because the initial stage of an influence technique triggers one underlying psychological mechanism: self-regulatory resource depletion.

We present a two-stage model, in which the first step involves draining the self’s finite self-control resources via consciously attending and responding to the requestors’ inquiries during the initial requests of an influence technique. A meta-analysis on the most prominent influence procedure, the foot-in-the-door (FITD) technique, revealed that its effectiveness hinges on the initial request being highly involving. A closer look suggests that highly involving requests entail either (a) active self-presentation or (b) demanding cognitive operations, or both — processes that are known to elicit self-regulatory resource depletion. In the second step, self-regulatory resource depletion fosters the use of norms, which increases the odds of yielding to the target request. Influence agents use norms of reciprocity, liking, and authority

to compel the person to comply. These norms are more likely to be relied upon when people pay more attention to the peripheral aspects of a message and less to the message context — a pattern that is seen among people with depleted self-regulatory resources. Hence in seven studies, we examined whether influence techniques induce self-regulatory resource depletion and then whether self-regulatory resource depletion leads to a reliance on norms and hence enhances compliance.

In Experiments 1 and 2 we gathered evidence to test Stage 1 of our model by examining the initial request-phase of a typical foot-in-the door ploy. We show that yielding to the initial part of a foot-in-the-door technique, which involved answering a series of self-disclosing (Experiment 1) or cognitively demanding questions (Experiment 2) induces self-regulatory resource depletion. Experiment 1 mimicked traditional foot-in-the-door technique questions while also connecting with the notion that self-regulatory resources are needed to engage in high-order thought processes and intelligent responding. Experiment 2 also borrowed questions from the foot-in-the-door literature and connected this process to the notion that self-regulatory resource depletion emerges after impression management attempts. Moreover, both were field studies, which enhance our claims about generalizability of the effects.

In Experiments 3 to 5, we tested Stage 2 of the model. In this series of lab and field studies, we assessed whether self-regulatory resource depletion fosters the use of heuristics in decision making, thereby increasing the chances of compliance. In Experiment 3, self-regulatory resource depletion was manipulated, as was the salience of a norm – in this case, the norm of reciprocity). Subsequently, compliance with a request was measured. We predicted and found that when participants were self-regulatory resource depleted and were presented with a norm of reciprocity, they showed a clear tendency to comply with the request. We extended the generalizability of our theorizing in Experiments 4 and 5 to include other operationalizations of self-regulatory resource depletion. These studies also demonstrated the effect in both field and lab settings involving different norms (e.g., liking and authority) and other forms of compliance. Moreover, Experiment 5 obtained converging evidence by investigating trait self-control. In this case, we found that low – but not high – trait self-control participants were induced to comply with a target request, but only when there was a norm in place.

Experiment 6 tested the full process model and found confirmation, including mediation.

The present findings point to a previously unexplored “theatre of operations” of principles involved in effortful self-regulation: that of dyadic social influence. Previous research has neglected instrumental dyadic interactions in which one party tries to persuade the other party into behaving in a specific manner. Our work is an exciting step forward toward understanding how, when, and why people agree to requests that perhaps even result in behaviors they did not wish to perform.

Vicarious Reciprocity: Inheriting the Social Debts of Close Others

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The norm of reciprocity—the rule that obligates individuals to return favors performed for them—has been traditionally studied in the context of dyadic interpersonal exchanges. However, in light of recent research demonstrating that individuals’ self-concepts often expand to include psychologically close others, we argue that the norm of reciprocity could operate through psychologically close others as well. That is, if a stranger performs a favor for someone with whom one feels close, one should feel a sense of obligation to return the favor—almost as if the stranger had performed the favor directly for oneself. In the current investigation, two studies were conducted to test the supposition that people not only inherit the social debts incurred by psychologically close others, but act on these obligations as well.

The purpose of Study 1 was to determine the extent to which a favor recipient’s close others (e.g. kin, close friends, relationship partners) inherit the obligations incurred by the favor recipient. Participants were 192 undergraduates who were asked to imagine one of seven scenarios. All of the scenarios involved a stranger approaching the participants and asking for a favor of modest size. In the control condition, there was little additional information. However, all other participants learned that the stranger had previously performed a modest-sized favor for either (a) another stranger; (b) a person with whom the participant felt close; or (c) the participant him- or herself. In addition, half of these non-control

participants were either (a) told that the favor recipient returned the favor shortly after receiving the favor; or (b) given no additional information; we included this variable with the assumption that when the favor recipient has an opportunity to return the favor, from an exchange orientation, there is no longer any obligation between them. Thus, overall, this scenario experiment was a 3 (Favor Recipient: Stranger vs. Close Other vs. Self) X 2 (Favor Return Status: Favor Returned vs. No Favor Return Information) + 1 (No Prior Requests).

After receiving this information, all participants were asked about the extent to which they would be likely to agree to do the favor. They were also asked how much they liked the favor-doer and felt obligated to agree to the favor-doer's request. If a favor recipient's close others do inherit the social debts incurred by the recipient, then participants in the No Favor Return condition should be equally likely to agree to the request regardless of whether a close other or they themselves had been the recipient of the favor. Moreover, if the effect is driven at least somewhat by feelings of obligation as a result of the norm of reciprocity (as opposed to a simple increase in liking for a person who does favors for close others), both the compliance effect and feelings of obligation should dissipate when the favor recipient has an opportunity to return the favor (Favor Returned condition)—thereby paying back the social debt incurred by accepting the original favor—even though liking should remain unchanged. The data revealed patterns consistent with predictions: People who have a close personal relationship with a favor recipient do inherit the favor recipient's social debt, and this effect appears to be due in large part to the norm of reciprocity operating vicariously through close others.

In Study 2, we experimentally manipulated (a) participants' perceived psychological closeness to a stranger; and (b) whether the stranger had or had not received a favor from the lead researcher of the experiment. Thus, overall, the design for the laboratory experiment was a 2 (Psychological Closeness: Close vs. No Information) X 2 (Favor: Favor vs. No Favor Information) between-participants design. Participants were 287 undergraduates who were told that the researchers were interested in comparing their brainwaves to the brainwaves of an interviewee whose interview they would soon be reading about. A single electrode was placed on each participant's forehead. They were told to free-associate while a number of words and images flashed on the screen. Next came the psychological closeness manipulation: Half the participants were informed that their and the interviewee's brainwaves were highly overlapping, creating a sense of close personal connection with the interviewee (Close condition); the other half were given no brainwave similarity information (No Information condition). Next, participants read the transcript of a purported interview in which the lead researcher of the experiment, who was conducting the interview, learned that the interviewee was having difficulty understanding some core psychology concepts. This is where the favor manipulation occurred: Half of the participants learned that the lead researcher offered to help the interviewee with the concepts at the end of the study, which the interviewee accepted (Favor condition), whereas the other half learned no such information (No Favor Information condition).

Participants were then asked if they would be willing to help out the lead researcher by completing additional surveys (yes/no). Consistent with predictions, Close-Favor participants were significantly more likely to agree to help the researcher than those in the other condition. Moreover, participants' scores on a scale measuring reciprocation ideology, an individual difference measure reflecting a person's personal subscription to the norm of reciprocity, was significantly and positively correlated with helping only in that cell. These results suggest that feelings of obligation due to the vicarious operation of the norm of reciprocity, not simply an increase in liking, influenced these participants' decisions to help the lead researcher.

In sum, the results of both studies support the notion that the norm of reciprocity operates vicariously through a network of individuals, causing people to take on the social debts incurred by close others—almost as if they themselves had been the direct recipient of the favor. Implications for persuasion in explicitly consumer domains will be discussed.

Identity-Signaling and Inferences about the Motivations behind Brand Usage

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What types of attributions do we make about the motives of a stranger who owns a particular brand, such as a BMW? Did he or she buy the BMW brand specifically because he or she prefers the functionally superior aspects of the car or because

of the identity associated with driving a luxury vehicle? How do these attributions about the stranger's motives for driving a BMW affect our perceptions of him or her? Consumers frequently purchase products for the purpose of communicating information about their identities to others; and similarly they interpret the purchasing behavior of others as a window into unobservable characteristics). The importance of identity signaling in consumer decision making has been known for some time, and a recent stream of work has developed a more nuanced view of signaling by addressing the role of social influence and identity construction through brand usage. However, the inferences that observers draw from these signals remain relatively underexplored.

In this research, we investigate the inferences consumers draw about others' brand usage. Specifically, we examine whether consumers infer that others are trying to signal identity, and the conditions under which identity signaling leads to positive attitudes towards the signaler. Across several studies, we demonstrate that consumers do draw signaling inferences from others' brand usage and that the attitude towards those who engage in signaling behavior depends on the authenticity of the inferred motives for signaling. Attitudes are more favorable when signaling reflects the true self than when signaling is perceived as inauthentic. In addition, these reactions are moderated by the degree of similarity between the observer and the target. Consumers are less likely to perceive similar than dissimilar others as engaging in signaling behavior.

In the first study, we establish that consumers draw signaling inferences from brand usage. The study was a 2 (Brand image) X 2 (Perceived Similarity) between-subjects design (241 participants). Participants were asked to form an impression of a target individual based on his usage of brands associated with either "high status" (e.g. Ritz-Carlton) or "environmental" (e.g. Toyota Prius) images. We hypothesized that projecting a high status image would be perceived as being driven by an extrinsic motivation of attaining social approval, while projecting an environmental image would be perceived as more intrinsically motivated. We expected that a target individual perceived as using brands because of intrinsic motivations would be perceived as more authentic. Consistent with this hypothesis, attitudes were less favorable towards the person signaling the high status image than the person signaling the environmental image. The target was seen as more sincere and less trendy when using the environmental brands than the high status brands. Moreover, attitudes were more positive and signaling motivational inferences were less favorable when the participants felt more similar to the target individual.

Study 2 explicitly manipulated the target's motives for brand usage and measured perceived similarity (133 participants). Participants read about a target individual and his choice of the focal brand, with the motives behind the purchase being superior performance, "fit" with his personality, or identity signaling. We expected that attitudes towards the target would be less favorable in the identity signaling condition. The results showed that participants liked the target more when he used the brand for performance and personality motives compared to when he used the brand for signaling. There was also a significant interaction of perceived similarity and motive on liking of the target, such that similarity to the brand user moderates the impact of motive. When participants perceived themselves as similar to the target, liking for the target was high, irrespective of the motive for buying the brand. On the other hand, participants who did not see themselves as similar to the target felt negatively towards the target when he was perceived as buying the brand for signaling purposes compared to the performance and personality motives. A similar pattern of results was found with perceptions of the target's authenticity.

Across the studies, the results suggest that identity signaling may be perceived either positively or negatively. The negative or positive perception seems to depend, in part, on perceptions of authenticity. Further, perceived similarity moderates this relationship, such that signaling by similar others is perceived more positively than signaling by dissimilar others.

The Role of Motivation and Guilt in Self-Control

Chair: Uzma Khan, Stanford University

Guilt as Motivation: A New Look at the Role of Guilt in Self-Control

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Guilt plays an important role in choices and self-control (Khan et al. 2005). However, to this point, it is unclear whether guilt only influences choice through emotional experience when people *feel* guilty, or whether it can also be a motivational state whereby people strive to *avoid* experiencing guilt. Whether guilt is an emotional or a motivational state further determines what effect guilt-priming has on self-control. Past research has generally treated guilt as an emotion that steers consumers away from indulgence. According to this research, priming guilt-related words increases self-control by inducing guilty experience (Giner-Sorolla 2001, Zemack-Rugar et al. 2007). The underlying assumption is that guilt-priming creates an affective state through direct assimilation with the prime. That is, people actually *feel* guilty when primed with guilt-related concepts and this feeling prevents them from indulging.

An alternative view explored in our research is that guilt acts as a motivational state. We propose that guilt-priming increases the motivation to avoid guilt, which guides the interpretation of means to achieve this goal state. E.g., imagine Jane, who after picking a diet-coke is choosing between an unhealthy pizza and a healthy salad. We argue that she will interpret her choice of a diet-coke differently depending on her level of motivation to avoid guilt. When primed with guilt, she is more likely to use the diet-coke as a justification to have pizza (due to heightened motivations to avoid guilt) than if she is not primed. More generally, we suggest that guilt-priming motivates consumers to interpret their decisions as virtuous in order to avoid guilt and feeling virtuous can paradoxically lead to MORE and NOT less indulgence.

Formally, we propose that 1) guilt-priming can create a motivation to avoid guilt 2) motivation to avoid guilt promotes interpretation of mundane choices as virtuous 3) virtuous choices serve as guilt-reducing excuses for further indulgence. Three studies support our theory. In Study 1 we primed participants with neutral (control) or guilt-related words (guilt-prime condition) in a scrambled-sentence task. Next, they consumed chocolate as part of a taste-test. Half were given a diet-coke to consume after the taste-test. We assumed that diet-coke can serve as a guilt-reducing justification when motivation to avoid guilt is high and can justify chocolate consumption. Consistently, those primed with guilt consumed more chocolate when they were given a diet-coke than when they were not. However, in control condition chocolate consumed was not significantly different when diet-coke was present or not. Results suggest that a diet-coke is interpreted as a guilt-reducing justification and reduces self-control when the motivation to avoid guilt is strong (i.e., when guilt is primed) but not in absence of such motivation. Building on the motivational view of guilt, we predict that virtuous choices in presence of a guilt-prime can directly reduce experience of guilt. Study 2 demonstrated this effect of guilt-prime on experienced guilt for a fixed amount of indulgence. We predicted that individuals primed with guilt would experience less guilt than those not primed if they are given a guilt-reducing justification (e.g., diet coke). We employed a 2(Guilt-Prime: Yes vs. No) X 2(Diet-Coke: Present vs. Absent) design. Instead of measuring consumption, all participants ate one donut and indicated their experienced guilt. Results yielded the predicted *guilt-prime*X*diet-coke* interaction. When diet-coke was offered participants primed with guilt experienced less guilt than those not primed with guilt.

Recent research has shown that initial virtuous choices serve as guilt-reducing justifications and lead to indulgence in subsequent decisions (Khan & Dhar 2006). Study 3 shows that an initial choice is more effective as a justification when guilt is primed. We explain that an initial virtuous choice is more likely to be viewed as a justification and allow more indulgence when the motivation to avoid guilt is strong.

Our findings add to self-control and justification research by showing how guilt-priming can increase indulgence through motivation to avoid guilt, which leads to interpretation of mundane decisions as virtuous justifications. Secondly, we contribute to priming and goals research by suggesting a motivational role of guilt-priming, which is significantly different from an affect-assimilation account. This also provides a mechanism to distinguish between goal-related vs. semantic priming. We suggest that priming a motivational state can strengthen or inhibit a goal depending on the level of

goal-attainment experienced.

Guilt as Motivation: Strategic Self-Management of Motivation in Consumer Self-Control

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Why do people party late before starting an important task? Smoke more before quitting? And why do carnivals occur immediately before fasting? We argue that people purposely engage in guilt-inducing activities (e.g., indulging) to increase their motivation to accomplish subsequent tasks that require self-control (e.g., study hard). Specifically, people have a lay theory of the positive relation between experienced guilt and motivational intensity. Farsighted consumers strategically apply this lay theory and self-induce guilt when facing future tasks that require stronger motivation than they otherwise would have. This proposition is consistent with the characteristics of guilt. Guilt is a self-conscious emotion (Tangney & Fischer 1995; Elster 1999) and thus provides a cognitive basis for strategic self-inducement and utilization and usually induces a strong desire to repair or undo what we have done to ourselves or to others (Tangney & Fischer 1995), which yields extra motivation to complete subsequent self-control tasks.

Five studies provide support for our propositions. Study 1 manipulated the importance of a future task and asked participants to predict motivational intensity after engaging in one of two different activities: resting at home or going to a party. The results showed that for an unimportant future task (studying for unimportant exam), resting led to greater predicted motivation and effort, whereas for an important future task (studying for an important exam), going to the party led to greater predicted motivation and effort input. The effect of specific behaviors on predicted motivation levels are mediated by predicted guilt. The results support our proposition of a lay theory about the relation between guilt and motivation.

Moreover, we show that strategic motivation management concerns systematically affect consumer preferences and choices. In Study 2, participants who faced a future self-control task where they freely chose their effort level (from 1 to 3 days of volunteer work), were more likely than participants who faced a task with fixed effort levels (3 days of volunteer work) to attend a party than to stay at home, for the purpose of motivating themselves to work longer. Individual level analyses provided further support for our proposition: when the future task effort was fixed, preferences did not differ, whereas when the future task effort was variable (and thus required greater self-control), those low in (self-rated) self-control were more likely to party than stay at home. In Study 3, consumers with a variable-effort future self-control task (hiking to 1 of 3 sites) were more likely to buy fancy hiking boots than those facing a fixed task (hiking to 3 sites). Study 4 showed that those who were less confident in their ability to finish a future task that was important were more likely to reward themselves before the task (rather than after the task) than those who were more confident. In contrast, when the future self-control task was not important, there was no such difference between those who were more and less confident in their ability to finish the task, again consistent with our proposition that consumers self-induce guilt to build up their motivation for a future task.

Finally, we examined the dynamics of motivation before and after a decision. We hypothesized that high planners (those who chronically think from a long term perspective) are more likely to adopt strategic motivation management tactics than low planners do. Results confirmed our proposition: High planners were more likely to indulge when facing a challenging future task. More importantly, for high planners, those who chose indulgence had higher self-efficacy ratings for their future task completion than a control group (high planners who didn't make choice at all) and those who chose not to indulge. In contrast, low planners showed no difference among these three conditions, which suggests that lower planners' choice of indulgence was not driven by the strategic motivation management.

These results provide converging evidence for our hypothesis of strategic motivation management and cannot be explained by other theories of sequential decision making such as licensing (Khan & Dhar 2006). Contrary to the extant literature on emotions, which suggests that people avoid negative emotions, we demonstrate that people strategically self-induce guilt, a specific type of negative emotion. Second, complementing previous research on self-control strategies, we show that people use self-induced emotional states to shore up their willpower.

Focus Single Mindedly on Your Goal: Successful Self-Control Strategy & Regulatory Focus

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Despite their best intentions, many dieters fail to accomplish their long-term goal of losing weight; in the moment, tasty high calories foods appear desirable and resisting temptation is not easy. Research on self-control suggests that when faced with such temptations, individuals may choose from an array of strategies: they can try to boost their thoughts about their goal to motivate persistence toward the desired outcome, *or* try to suppress their thoughts about temptations to avoid drifting off course (Fishbach, Friedman, and Kruglanski 2003; Patterson and Mischel 1976), *or* they might follow a combination of these strategies. For example, dieters may exert self-control by boosting health-related thoughts, by suppressing thoughts about tempting foods, or simultaneously boosting health-related thoughts and suppressing temptation thoughts. An important question that arises is: which strategy will be most effective in facilitating self-control? The present research examines the efficacy of each strategy, and further investigates how consumers' adoption of either self-control strategy may be influenced by their overarching motivational orientations. In particular, it has been argued that people are guided primarily either by their desire for advancement and growth (promotion motives) or by their desire for safety and security (prevention motives; Higgins 1997). Studies have shown that people's motives influence their ability to exert self-control (Freitas, Liberman, and Higgins 2002), but it is not clear which self-control strategy is actually used by these two types of individuals.

We propose that a prevention motive, which is marked by a desire for safety and security, increases vigilance to avoid goal failure. As their goal is salient, such individuals focus single-mindedly on their goal in order to minimize chances of goal failure. In contrast, a promotion motive, which is marked by desire for advancement and growth, increases eagerness to ensure successes. In order to maximize chances of goal success, such individuals do the maximum they can to ensure success and end up adopting a dual strategy (both goal focus and temptation suppression). Ironically, even though many might expect that doing everything possible to exert self-control will maximize chances of successful self-control, this is not the case. Rather, we propose that single goal focus is a more effective self-control strategy than temptation suppression or dual strategy. This is because temptation suppression or dual strategy results in a rebound of temptation thoughts that detract from goal focus (Wegner 1994), resulting in ultimate self-control failure. In contrast, single minded goal-focus results in successful self-control and consequently, a suppression of temptation thoughts (Fishbach et al. 2003). Five studies support these predictions. Study 1 establishes that participants with accessible prevention motives are more likely to endorse a single goal-focus strategy, whereas participants with accessible promotion motives are more likely to endorse a dual strategy of focusing on the goal *and* suppressing temptation. Study 2 extends the findings to individual difference in motivational orientation. Replicating the results of study 1, we find that those who hold chronic prevention motives were more likely to use the single goal-focus strategy over others, whereas those who hold chronic promotion motives were more likely to use the dual strategy. Importantly, we further find that prevention (vs. promotion) motives result in more successful self-control, which implies the superiority of the single goal-focus strategy over others. To further investigate the direct link between a self-control strategy and successful self-control, in study 3, we collected thoughts listings. These provided evidence that increased goal thoughts (goal focus) but not decreased temptation thoughts (temptation suppression) mediated the effect of motivational orientation on self-control, showing that single-minded goal focus is indeed the key to successful self-control.

To further implicate the role of strategy in ensuring self-control, in study 4, we instructed promotion- (vs. prevention-) primed participants to follow each strategy and measured self-control. We find that compared to those with no instruction, a goal-focus strategy increased self-control even among those with promotion motives, whereas a temptation-suppression strategy impaired self-control even among those with prevention motives. In study 5, we replicated previous results in the field with an actual choice measure.

Taken together, these five studies provide converging evidence that a single-minded goal-focus strategy is more effective than temptation suppression or a dual strategy. Furthermore, these studies show that this winning strategy is more likely to be adopted by those with prevention (vs. promotion) motives.

Situational Influence on Charitable Behavior

Chair: June Cotte, University of Western Ontario, Canada

Do Thin Mints Take the Bite Out of Donations? Donor Reaction to Nonprofit Earned Income Strategies

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Since 1917, Girl Scouts of America have sold cookies. Estimates suggest the revenue generated from sales exceeds \$400 million. But what effect does this revenue have on donations? While the practice of nonprofit organizations engaging in commercial activities is not new, the scope and magnitude of these ventures is growing at an increasing rate spurred by an increasingly competitive landscape for donations (Skloot, 1987). While economic researchers have tried to understand the effects of such activities, little has been done in the consumer psychology area.

Despite the increased prevalence of the phenomena of nonprofits engaging in earned income strategies little is known about the effects of these activities on potential donor intentions and behaviors. While donor contributions can be affected by a number of different factors, this research focuses on the relationship between earned income strategies and donor likelihood and intentions as a function of perception of need and perception of fit.

The donor decision process generally begins with a perception of need of the nonprofit organization (Bendapudi and Bendapudi, 1996). When a nonprofit organization engages in an earned income strategy, especially a successful one, this may affect the donor's perception of need. Economics literature on 'crowding out' of nonprofit revenue provides evidence that as revenue from one source increases, revenues from other sources decrease, or are crowded out (e.g., Kingma, 1995). Thus, drawing on the reduction of perceived need, a negative relationship between earned income and donor likelihood and intentions to donate was predicted. Further, it was predicted that when a non-profit organization's earned income strategy is successful (vs. unsuccessful) donation likelihood and intentions would be lower.

Perception of fit has been used extensively in consumer psychology literature (e.g., brand extensions). The basic logic concerning the role of fit is that consumers possess cognitive categories for certain objects. As additional objects are added, the consumer compares the new object to the previous object to assess the number of shared associations (or similarities) between the objects (e.g., Bousch and Loken, 1991). Extending this logic to earned income strategies, the degree of perceived fit by donors between the social mission of the nonprofit organization and its earned income strategy is referred to as mission consistency (Wei-Skillern, et al., 2007). It was predicted that degree of mission consistency would affect donation likelihood and intentions, such that when a non-profit organization's earned income strategy is mission consistent (vs. inconsistent), donation likelihood and intentions would be higher.

Experiment 1 examined the effects of earned income on donation likelihoods and intentions, using a student sample at a large Midwest university. A 2 (pre- vs. post- exposure to an earned income strategy) x 2 (strategy success vs. failure) x 2 (mission consistent vs. inconsistent) mixed design was employed. Mission consistency and strategy success/failure were manipulated using hypothetical scenarios, developed via pre-tests. Results showed the introduction of an earned income strategy had a negative impact on donation likelihood and intentions. Contrary to predictions, the relative success/failure of the strategy had no effect. A stronger manipulation of success/failure was developed in Experiment 2 to further explore this result. A significant repeated measure by mission consistency interaction was also found for donation likelihood and intentions. Mission consistent (vs. inconsistent) conditions, donation likelihood and intentions were higher as predicted, but overall, they decreased with the earned income strategy. Thus, mission consistency was not sufficient to overcome the negative impact of an earned income strategy.

Experiment 2 was similar to the first experiment with the following exceptions: a non-student sample was employed to improve generalizability of results, and a stronger manipulation of success/failure was developed that increased the emphasis on the strategy's economic performance. Results again showed the introduction of an earned income strategy had a negative impact on donation likelihood and intentions, with the perception of fit results mirroring Experiment 1. Unlike Experiment 1, there were significant differences across success/failure conditions. However, the direction of means was unexpected, with donation likelihood and intentions increasing with strategy success (vs. failure). Thus,

counter to findings from economics research, successful earned income strategies had a less negative impact on donations. This study begins to address the impact that earned income strategies have on donation intentions from a consumer psychological perspective. Results across two sampling contexts show that the introduction of earned income has a negative impact on donor likelihoods and intentions, but this impact can be somewhat mitigated when perceptions of fit are high and the perceived success of the strategy is high. This latter result was unexpected. It may be that donors feel that organizations with successful earned income strategies are practicing sound business and deserve continued support. We feel this is an area that requires additional study.

Bousch, D. & Loken, B. 1991. A process-tracing study of brand extension evaluation. *Journal of Marketing Research*, 28: 16-28.

Bendapudi, N., Singh, S. & Bendapudi, V. (1996). Enhancing helping behavior: An integrative framework for promotion planning. *Journal of Marketing*, 60: 33-49.

Kingma, B. Do profits crowd out donations or vice versa? The impact of revenues from sales on donations to local chapters of the American Red Cross. *Nonprofit Management & Leadership*, 6: 21-38.

Skloot, E. (1987). Enterprise and commerce in nonprofit organizations. In W. Powell (ed.), *The Nonprofit Sector: A Research Handbook*. New Haven, CT: Yale University Press.

Wei-Skillern, J., Austin, J., Leonard, H. & Stevenson, H. (2007). *Entrepreneurship in the social sector*. Thousand Oaks, CA: Sage.

"We" Are More Charitable than "I" Am: Self-Construal, Self-Enhancement, and Charitable Giving

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Researchers have shown that most people evaluate themselves as more honest, cooperative, and considerate than others are (e.g., Goethals et al. 1991). This finding illustrates self-enhancement which refers to unrealistically positive self-evaluations. The current research focuses on self-enhancement in the altruistic domain. Understanding self-enhancement in this domain is important in that knowing oneself and helping others in need are critical aspects of our social life. Moreover, factors that influence self-enhancement in this domain are likely to influence helping behaviors, and understanding the antecedents of helping behavior should have practical implications for charities. Of particular interest in this research are a personal characteristic (self-construal) and a situational factor (availability of social information) that relate to self-enhancement on charitable traits and donation intentions.

We propose that one important antecedent of self-enhancement in the altruistic domain is one's self-construal which refers to the degree to which individuals see themselves as separated from (independent) or connected with others (interdependent)(Markus and Kitayama 1991). Research shows that self-enhancement is more pervasive among independents than interdependents (e.g., Heine et al. 1999). Although this is the prevailing view in the literature, other research suggests both independents and interdependents self-enhance on personally important attributes (e.g., Sedikides et al. 2003). Markus and Kitayama (1991) suggest that interdependents strive for connections and harmony with others through considering and meeting the expectations of significant others. This suggests that individuals with dominantly interdependent self-views may value charitable traits more than others do. Previous research also suggests that independents and interdependents use social information in different ways in their judgments and decisions (e.g., Torelli 2006). On the basis of these findings, we propose that (1) individuals with dominantly interdependent self-views self-enhance on charitable traits more than do those with weak interdependent self-views, (2) personal importance of charitable traits underlies this effect, and (3) information about others' donations moderates the relationship between self-construal and self-enhancement. We then extend the implications of these relationships to charitable giving by examining the influence of self-construal and self-enhancement on donation intentions. Specifically, we hypothesize that:

H1: Individuals who have predominantly interdependent self-views, compared to those who do not, display more self-enhancement on charitable traits.

H2: Personal importance of charitable traits mediates the influence of self-construal on self-enhancement on charitable

traits.

H3: Social information about others' donation decisions moderates the relationship between self-construal and self-enhancement on charitable traits.

H4: Individuals who have predominantly interdependent self-views, compared to those who do not, are more likely to give to charities.

H5: Individuals who exhibit strong self-enhancement on charitable traits are more likely to give to charities than are individuals who do not.

We report two studies that support our hypotheses. Study 1 provides evidence for H1 by manipulating self-construal. Study 2 provides additional support for H1 with a more direct self-other comparison and by measuring chronic self-construal. Study 2 supports H2-3 by assessing the importance of charitable traits to participants and by manipulating social information. Study 2 also supports H4-5 by demonstrating the influence of self-construal and self-enhancement on donation intentions.

Study 1: A 2 (self-construal manipulation: high vs. low interdependence) X 2 (evaluation of charitable traits: self vs. other) mixed design was used with the first variable as a between-subjects (random assignment) and the latter as a repeated measure. Participants first completed self-construal manipulations followed by a manipulation check. They then evaluated themselves and, separately evaluated other students at the same university, on charitable traits. The results showed that participants who received the high interdependence manipulation, compared to participants who received the low interdependence manipulation, rated themselves in more positive terms than they rated others. This finding supports H1.

Study 2: A 2 (self-construal measurement: high vs. low interdependence) X 2 (social information: \$2.50 vs. \$7.50) between-subjects design was used with self-enhancement and charitable giving as dependent variables. Participants were given a message that solicited donations to local charities. They then read information about how much other students at the same university donated to the charities. Approximately half of the participants were told that other students donated \$2.50 on average to the local charities, while the other half were told that other students donated \$7.50 on average. Participants then rated how likely they were to donate to the charities. Next, participants rated themselves on charitable traits relative to other students from the same university. Finally, they rated the extent to which each trait was important to their self-identity, followed by the Singelis (1994) Self-Construal Scale.

Overall, the results replicated the finding from Study 1. A mediation analysis supported H2, suggesting that high interdependents self-enhance on charitable traits because such traits are personally important to them. The effect of self-construal on self-enhancement was qualified by the differential social information. In the \$2.50 condition, self-enhancement emerged among high interdependents, but not among low interdependents. This pattern was not observed in the \$7.50 condition, supporting H3. Consistent with H4, high interdependents were more likely to donate than were low interdependents. Finally, those high in self-enhancement were more likely to donate, supporting H5.

Discussion: Theoretical Contributions. First, our study adds to the self-enhancement literature by investigating this tendency specifically on charitable traits and from the perspective of self-construal. Second, in contrast to the prevailing view in the literature that interdependents do not self-enhance, our findings attest to substantial self-enhancement on the part of interdependents. Moreover, we demonstrated that personal importance of charitable traits underlies this effect. Third, we establish a boundary condition for this effect by identifying the moderating role of social information in the relationship between self-construal and self-enhancement. Our research is one of the first to demonstrate the interaction between self-construal and social information, which subsequently impacts self-enhancement in the altruistic domain.

Practical Implications. First, high interdependents are most likely to donate. Charities may attempt to target individuals with strong interdependent self-views and/or design fund raising communications that induce interdependent self-views. Second, in terms of intentions to donate, those with a high self-enhancement tendency are more likely to donate.

Non-profit practitioners would benefit from understanding their target audiences' self-enhancement tendency.

The Fruit of Labor Effect

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Consumers often engage in experiences that require some level of effort investment from them. An interesting example of such an experience relates to some cause marketing campaigns. To illustrate, consider the case of Yoplait's "Save Lids to Save Lives" campaign, which requires consumers to mail in carton lids to generate a 10-cent donation per lid for a cancer charity. Thus, in contrast to the other brands employing cause-marketing campaigns that directly contribute a fixed amount per consumer-purchase to a particular charity, Yoplait requires their consumers to invest additional effort in generating such contributions. Yoplait's intriguing cause marketing strategy raises an interesting question—Could varying the effort invested in the overall consumption experience impact consumer's evaluations for the associated consumption item? A pretest conducted with marketing experts indicates that the product associated with a consumption experience that requires additional effort investment is likely to be evaluated less favorably. However, an emerging body of research on the neurobiology of rewards seems to suggest the opposite.

Recent research on neurobiology of reward demonstrates that expending effort to earn a reward leads the ventral striatum (part of brain associated with motivational drive and reward processing) to be more intensely stimulated as compared to when no such effort is expended (Zink et al. 2004). Stated differently, this stream of research seems to suggest that investing effort in the overall consumption experience is likely to intensify the engagement strength associated with the experience, and, thereby positively impact the evaluations of any associated item, a notion we term as the "fruit of labor" effect.

In sum, the implications of the findings arising from our pretest with the marketing experts contradict those arising from research on the neurobiology of rewards. An overarching objective of this research, therefore, is to investigate whether additional effort investment in the overall consumption experience would positive or negatively impact the evaluations of the consumption item associated with the experience.

In order to seek the aforementioned research objectives, in study 1, we employed a sampling task, wherein participants were told that they would be sampling a new brand of orange juice called Orange Grove that a leading beverage manufacturer is planning to launch in the Canadian market. They were informed that as compensation for participating in the study, the beverage manufacturer would donate one dollar to the Canadian Cancer Society. Participants were told that to keep a track of the number of participants participating in the sampling study, they will be provided a coupon. In order to manipulate the effort investment, one group of participants exerted more effort (cut a paper coupon; effort investment-present) to generate the donation for the charity, while a second group did not exert any effort (received a precut coupon for charity; effort investment-absent). Subsequently, participants sampled and rated a purportedly new brand of orange juice. In line with the fruit of labor, our results show that investing additional effort in cutting the coupon (as compared to receiving a precut coupon) for generating a donation enhanced liking for the subsequently sampled juice. Our conceptualization suggests that effort investment in an experience enhances the engagement strength with the experience, thereby enhancing the reward value of any item associated with the consumption experience. Following this reasoning, we expect that any factor that affects the engagement strength is likely to moderate the proposed fruit of labor effect. This logic formed the basis of study2. Research on motivation suggests that one of the factors impacting engagement strength is whether or not the task one is investing effort in is considered meaningful (Seeman 1951; also see, Higgins 2006). Thus, drawing upon this stream of research, we propose that when the task meaningfulness is low, the fruit of labor effect documented in study 1 is likely to get attenuated.

To test the aforementioned proposition, we employed the same effort investment task that was used in Study 1—participants either received a precut coupon or cut a coupon for a charity. However, in order to manipulate the meaningfulness of the task, in study 2, we employed either a charity that participants could highly relate to and empathize with (task-meaningfulness-high) or a charity that participants could not relate to or empathize with as much (task-meaningfulness-low). Specifically, in the task-meaningfulness-high condition, participants were told that the donation would go to the Ontario Cancer Foundation, whereas in the task-meaningfulness-low condition, participants were told that the donation would go to Canadian Landmine Eradication Awareness and Removal Project (CLEAR). The

rationale for choosing these charities was based on a pretest. Subsequently, as in Study 1, all participants engaged in the beverage (orange juice) sampling task. In this study, in order to demonstrate the robustness of the fruit of labor effect across different dependent variables, we asked participants to state their willingness to pay for the orange juice. In line with our conceptualization, we find that effort investment in the task positively impacted the WTP for the subsequently consumed orange juice, but only when the task-meaningfulness is high. However, when the task meaningfulness was low, there was no difference in WTP for the juice between the effort investment-present and the effort investment-absent conditions

In study 3, we provide further evidence in support of the fruit of labor proposition by examining the moderating role of incentive salience of the consumption item. Extant motivation research suggests that when the incentive salience of the reward is heightened prior to when one exerts effort in a task, the engagement strength with the task ought to get accentuated (Higgins 2006; Zink et al. 2004). Drawing upon motivation research, we argue that when the incentive salience of the subsequently sampled consumption item (orange juice) is heightened prior to investing effort in the task, the fruit of labor effect should get more pronounced. The procedure of this study closely paralleled that of the other two studies with two major changes. First, in this study participants were informed that as compensation for participating in the study, the business school would donate \$1 to the Canadian Cancer Society. Thus, the brand of orange juice in this study was not associated with the charity. Second, in order to manipulate the incentive salience of the orange juice, in this study, half of the participants (those in incentive salience-high condition) saw a color picture of a glass of orange juice along with the instructions for the sampling task. In the incentive salience-low condition, no such picture was included in the set of instructions for the sampling study. In line with our predictions, we find that the participants in the effort-investment-present condition were willing to pay more for the juice when the incentive salience was high as compared to when the incentive salience was low. However, when the effort investment was absent, there was no such difference in WTP between the incentive salience high and the incentive salience-low conditions.

In sum, across three studies, we find that additional effort investment in a consumption experience can positively impact the evaluations of an associated consumption item. Our findings rule out alternative accounts related to cognitive dissonance and licensing accounts. Implications for marketers are discussed.

Higgins, Tory E. (2006), "Value from Hedonic Experience *and* Engagement," *Psychological Review*, Vol. 113 (3), 439-460.

Seeman, Melvin (1959), "On the Meaning of Alienation," *American Sociological Review*, 24, (December), pp. 783-791.

Zink Caroline F, Giuseppe Pagnoni, Megan E. Martin-Skurski, Jonathan C. Chappelow and Gregory S. Berns (2004), "Human Striatal Response to Monetary Reward Depends on Saliency," *Neuron*, 42 (May), 509-517.

There is More to Hedonic Adaptation than meets the Eye, Nose, Mouth

Chair: Joachim Vosgerau, Carnegie Mellon University

Discussion Leader: Piotr Winkielman, University of California, San Diego

Symposium Overview

Just as people adapt to the brightness of light, the loudness of sound, and the intensity of pressure, people adapt to favorable and unfavorable hedonic experiences. Hedonic adaptation—a reduction in the intensity of continued affective experience—has a pervasive influence throughout our personal and social lives. While much is known about the basic perceptual and physiological processes that allow us to adapt to sensation, much less is known about which kinds of stimulation cause adaptation, and what other consequences adaptation yields. The research presented in this symposium elucidates top-down (Morewedge, Huh, & Vosgerau) and bottom-up processes (Wadhwa, Shiv, and Nowlis; Nelson, Meyvis, and Galak) involved in hedonic adaptation across three stimulus modalities: taste, sight, and smell.

Morewedge, Huh, and Vosgerau show that mentally simulating eating a food influences its subsequent consumption in a manner similar to actual consumption of the food—people who imagine eating a large amount of a food subsequently eat less of that food than do people who imagine eating a small amount or imagine physically manipulating it.

Wadhwa, Shiv, and Nowlis demonstrate that prolonged exposure to appetitive food and non-food odors reduces subsequent consumption behaviors related to not only the satiating odor, but also to other hedonic foods (e.g., M&Ms) and hedonic experiences in other modalities (e.g., a spa-experience).

Nelson, Meyvis, and Galak show that, although people avoid commercials, these interruptions actually improved enjoyment from watching these programs, regardless of the nature or quality of the interruption.

Piotr Winkielman, a leading researcher in the field of hedonic experiences and the affective, physiological, and cognitive processes that bring them about, will be our discussant. He will critically summarize the presented papers and discuss the present role and future of hedonic adaptation research within the study of consumer behavior. He will then draw the audience into a discussion with the presenters.

We believe that the session will attract a wide variety of conference attendees, as it will attempt to connect the fundamental psychological process of adaptation to concrete applications in marketing. It will thus appeal both to those who are interested in the psychology of adaptation, as to those who are interested in applying fundamental psychological principles in marketing contexts.

Thought for Food: Top-down Processes Moderate Sensory-Specific Satiation

Carey K. Morewedge, Carnegie Mellon University

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Hedonic adaptation (Fredrickson & Loewenstein, 1999) denotes the typically observed decline in pleasure when positive consumption experiences are repeated. In food consumption, it has been shown that consumption of a specific food leads to a decrease in liking of the food, without diminishing liking of foods not consumed. Such food specific adaptation is called sensory-specific satiation (Raynor & Epstein, 2001). People typically react to sensory-specific satiation by switching to alternatives or consuming less (Herrnstein & Prelec, 1991; McAlister, 1982).

Whereas extant research on adaptation and satiation has focused on the impact of initial consumption on the pleasure from subsequent consumption, this research focuses on the effect of imaginary or virtual consumption on subsequent actual consumption. Extant research suggests that the processes of mental imagery are similar to the processes involved in the actual experience of a stimulus. Mental imagery has been found to produce similar physiological responses (e.g., Brandt & Stark, 1997; Huber & Krist, 2004; Lang, 1979), neurological processes (Kosslyn, Ganis, & Thompson, 2001), and behavioral responses (e.g., Garcia, Weaver, Moskowitz, & Darley, 2002; Wohlmann, Healy, and Bourne 2007) as the actual consumption experience. If imaginary consumption acts as a substitute for the sensory experience of consuming a food, imagining consuming a food should, like actual consumption of the food, lead to a decrease in its subsequent actual consumption. In three experiments, we tested this prediction against the alternative hypothesis that virtual consumption of

a food whets one's appetite to consume more of the imagined.

In experiment 1, participants were assigned to one of three conditions. In the control condition, participants were asked to imagine inserting 33 quarters into a laundry machine, one at a time. Participants in the few virtual consumption condition were asked to imagine inserting 30 quarters into a laundry machine and then to imagine eating 3 M&M's. Participants in the many virtual consumption condition were asked to imagine inserting 3 quarters into a laundry machine and then to imagine eating 30 M&M's. So, in all three conditions the amount of imagery was held constant (i.e., imagine inserting or eating 33 tokens), and the ratio of M&Ms eaten versus quarters inserted was varied. After the mental imagery task, participants were asked to rate the taste of M&Ms by sampling M&Ms at will from a bowl filled with 40g of M&M's. Without participants being aware, we measured how many grams of M&M's participants ate. Participants in the many virtual consumption condition consumed significantly fewer M&M's than participants in the few virtual consumption condition and participants in the control condition. Moreover, the amount of M&Ms eaten in the few virtual consumption condition did not differ from the amount in the control condition. These findings suggest that imaginary consumption of a food leads to virtual satiation rather than a whetting effect.

Experiment 2 was designed to break the confound of the number of M&M's that respondents imagined eating and the amount of quarters that participants imagined inserting by manipulating imaginary consumption experience (eating M&M's vs. inserting quarters into a laundry machine) orthogonally to the amount of imagined consumption (3 M&Ms/quarters vs. 30 M&Ms/quarters) between-subjects. Participants who imagined eating thirty M&M's subsequently consumed fewer M&Ms than participants who imagined eating three M&Ms. No difference was found for respondents who imagined inserting thirty or three quarters into a laundry machine.

Experiment 3 employed a 2 (imaginary consumption experience: eating M&M's vs. putting M&M's into a bowl) x 2 (amount of imagined consumption: 3 M&Ms vs. 30 M&Ms) between-subjects design. As in the previous studies, participants who imagined eating thirty M&M's consumed significantly fewer M&M's than did participants who imagined eating three M&M's. The amount of M&M's eaten by participants who imagined putting 3 M&M's or 30 M&M's into a bowl did not differ between conditions. This finding demonstrates that virtual satiation is indeed caused by the imagined experience (consumption vs. putting M&M's into bowl) rather than the imagined stimuli (which were constant across experimental conditions).

The prevailing view on food adaptation is that satiation is brought about by actual consumption. The present research demonstrates that merely imagining consuming a food can also cause consumers to subsequently consume less. Across three experiments, we found that people who imagined eating a large amount of food subsequently consumed less of the food than those who imagined eating a smaller amount of food or no food. The present investigation attests to the importance of the psychological underpinnings of satiation. In particular, the results that satiation can be induced without external stimuli through virtual consumption provide evidence that satiation is not only a consequence of physiological processes (a bottom-up process) but also involves cognitive "top-down" processes.

Smelling Your Way to Satiety: Impact of Odor Satiation on Subsequent Consumption-Related Behaviors

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Baba Shiv, Stanford University

Stephen M. Nowlis, Arizona State University

A rapidly increasing number of brands have begun to employ scent marketing as a tool to promote their brands. Starwood Hotel's Westin brand, for example, infuses the aroma of white-tea in their hotels' public spaces. Recently, Hotel Hard Rock in Vegas started pumping the fragrance of waffle-cone in the hotel's lobby to attract consumers to their ice-cream parlor. Similarly, M&M world at the Time Square infuses its store with the scent of chocolate to lure customers. Marketing experts consider the use of such food related olfactory-cues an effective tool to enhance subsequent consumption behaviors related to food and beverages.

In contrast to the market wisdom, is it possible that being exposed to such appetitive odors will reduce subsequent consumption of food and beverages? An emerging body of work on neurobiology of rewards seems to point to this possibility. Specifically, research in this domain shows that prolonged exposure to a reward stimulus, such as an

appetitive odor, reduces activity in the medial orbitofrontal cortex (activated in response to an appetitive reward), while it enhances activity in the lateral orbitofrontal cortex (activated in response to an aversive outcome; Rolls et al. 2003; Small et al. 2001). Stated differently, these findings suggest that prolonged exposure to a reward (e.g., an appetitive odor) is likely to satiate the appetitive motivational state and thereby reduce subsequent consumption behaviors related to the cued reward, a notion we refer to as “reward-satiety effect.”

In sum, the implications for odor-induced consumption behaviors arising from the notion of reward-satiety clearly contradict those arising from the opinions of marketing-experts. An overarching objective of this research, therefore, is to examine which of the two contradictory predictions would receive empirical support in the context of odor-induced consumption behaviors. Another goal of this research, which is contingent upon reward-satiety effect receiving empirical support, is to examine the generality of the reward satiety effects. This objective derives from an emerging research on motivation, which posits motivational systems to be more general in nature; findings from this research shows that exposure to reward cues impacts consumption motivation in a generic rather than a cue-specific manner (e.g., Van Den Bergh, Siegfried and Warlop 2008; Wadhwa, Shiv and Nowlis 2008). Thus, we examine whether prolonged exposure to an appetitive odor could reduce subsequent consumption behaviors related to not only the cued odor but also other rewarding items.

To seek the aforementioned objectives, in study 1, we randomly assigned participants to either an odor-present or odor-absent conditions. In both the odor-present and the odor-absent conditions, participants watched a 15-minutes long documentary, purportedly as part of a study conducted for TiVo. In the odor-present-condition, experiment room was infused with the odor of popcorn. Subsequent to the TiVo study, participants responded to the mood and fatigue measures. Participants were then informed that as compensation for taking part in the study, we have food served for them in the next room. Thereafter, participants proceeded to another room, one person at a time. On reaching the second room, where five food items (chips, cookies, M&Ms, popcorn and pretzels) were on display, each participant indicated his/her choice of food items. The results of study 1 support the reward-satiety proposition. Specifically, exposure to an appetitive food odor led to a decrease in subsequent consumption behaviors related not only to the cued food item but food in general. No differences in mood and fatigue level were found across conditions ($F_s < 1$).

Our second study aimed to achieve the following two objectives. First, in this study we sought to provide further support for the reward satiety notion. We argue that if exposure to an appetitive food odor leads to a reward satiety effect, then we should get the same effects with an appetitive non-food odor as well. Second, we examine whether reward-satiety effect is even broader in nature, such that exposure to an appetitive food odor could reduce the subsequent consumption behaviors related not only to food but also beverages and other non-food hedonic items.

The basic procedure of study 2 was similar to that used in Study 1. In study 2, however, we included a non-food odor condition. As in Study-1, participants in all the conditions watched a movie in a room infused with the odor of popcorn (food-odor condition), lavender (non-food odor condition) or no-odor (control condition). Participants subsequently indicated on 11-point (*not at all/very much*) scales their urge to drink and urge to eat. Thereafter, participants were ushered to another room with various food and beverage items on display. Participants chose the food item(s) and the size of the drink item(s) s/he desired to consume in the next room, while working on the remaining part of the study.

Subsequent to making the food and drink choices, participants moved to the adjoining room, where they rated their desire for various utilitarian (e.g., bonus-pack batteries) and hedonic products (e.g., a spa experience). In line with the reward-satiety effect, our findings show that just as appetitive food odor, exposure to an appetitive non-food odor also reduced subsequent consumption behaviors related to food. Moreover, our findings demonstrate that the documented reward-satiety effect is broader in nature such that participants in the appetitive-odor conditions as compared to the no-odor condition showed reduced behavioral tendencies toward not only food but also beverages and non-food hedonic items. Further, though not predicted, our findings demonstrate that reward-satiety enhanced subsequent desire for the utilitarian items. Interestingly, our findings show that there were no differences in the urge to drink and eat across conditions. Thus, these results suggest that though reward-satiety does not impact physiological hunger and thirst, it impacts the wanting for the food and beverage items.

Taken together, our findings provide support for the reward-satiety effect at a broader cross-modal level, whereby exposure to appetitive food and non-food odors on one hand reduced subsequent consumption of hedonic food and

non-food items, on the other hand it enhanced desire for utilitarian items. Implications for the use of odors in product promotions, especially in the food and beverage category, are discussed.

Mispredicting Adaptation and the Consequences of Unwanted Disruptions: When Advertisements Make Television Programs More Enjoyable

Leif Nelson, University of California, San Diego*

Tom Meyvis, New York University

Jeff Galak, New York University

People like watching television but they dislike watching television commercials. Indeed, entertainment technology is substantially guided by a nearly universal desire to remove disruptions. Consumers will pay extra to subscribe to broadcasts, invest in technological innovations, or purchase recordings in pursuit of an uninterrupted viewing experience. On the one hand, given that television viewing is one of the most popular leisure activities, consumers could be expected to have the knowledge and experience to maximize their enjoyment. On the other hand, the decision to remove commercials requires consumers to accurately forecast the hedonic consequences of that decision, and this type of forecasting falls in the domain of a particularly common human shortcoming. We propose that people tend to adapt to most positive experiences, including watching television programs. For many television shows, enjoyment intensity tends to decline as the show progresses. However, commercial interruptions can disrupt this adaptation process and (at least partially) restore viewers' enjoyment to its original intensity. Thus, to the extent that consumers adapt to television shows, inserting commercials may make these shows more enjoyable by disrupting this adaptation process.

We investigate this possibility in six studies, in each of which participants watched either a continuous or a disrupted version of a video program, after which they rated their enjoyment of the program. In the first study, consumers watched an episode of *Taxi* either in its entirety as aired in syndication, or the same episode with the commercials edited out. As predicted, participants who had watched the episode with commercials judged it to be more enjoyable and funnier than did those participants who watched it without commercials. To rule out the possibility that these effects derive from evaluative contrast, in Study 2 we asked participants to watch a short animated clip that was either interrupted by a very entertaining ad or was presented continuously. Once again, we found that participants preferred the clip when it was interrupted than when it was presented intact.

Perhaps it is the mere presence of ads (and not their disruptiveness) that produces this effect? In Study 3 participants watched a brief nature documentary. For approximately half of the participants the documentary was preceded and followed by advertisements, whereas for the remaining participants the same advertisements were placed to disrupt the programming. Once again, people preferred the program when it was disrupted by advertisements relative to when it was presented continuously? If disruptiveness guides the effect, then it need not be advertisements that create the disruption. In Study 4 we presented participants with two nature documentaries. For some people they were presented in their entirety, one following the other. For the remaining participants they were intermingled such that the first half of one was followed by the first half of the other, and then the second half of the former was shown immediately prior to the second half of the latter. As expected, the continuous configuration was enjoyed less than the disrupted version.

If these effects are due to disruption of adaptation, then factors which influence adaptation should also moderate our effect. In Study 5 we identified an individual difference known to influence adaptation (age) and examined whether this factor moderated the influence of commercial disruptions on program enjoyment. As expected, older consumers (who are slower to adapt to stimuli) were less likely to experience the beneficial effects of commercial disruptions than were younger consumers. In the final study (Study 6), we identified novel stimuli which were unlikely or likely to lead to adaptation. As predicted, commercial disruptions made the high adaptation program more enjoyable, but did not influence the low adaptation program.

Although people prefer to avoid disruptions in television programming, we observe that disruptions can actually improve the viewing experience. Nevertheless, it is possible that popular television may, in fact, have evolved to maximize experience by minimizing adaptation. For example, it has been argued that television programming has grown more complex, with precisely the types of jarring editing and elaborate writing that keep people from adapting to a program

(Johnson 2005). It is perhaps also at these extremes of complexity that the prescriptions for advertising shift. Whereas the relative monotony of a pleasant bison documentary might benefit from the occasional disruption, the more elaborately compiled contemporary programming might sufficiently mitigate adaptation so that additional disruptions would lose their positive utility and even add negative utility. The monotony of everyday life may particularly benefit from disruption, but perhaps the exotic polytony of contemporary fiction requires fewer disruptions to remain enjoyable.

Temporal Dynamics in Consumer Decision Making

Chair: Juliano Laran, University of Miami

Intertemporal Dynamics of Self-Control

Juliano Laran, University of Miami*

Temporal distance has a wide array of implications (Trope, Liberman, and Wakslak 2007). According to construal level theory (Trope and Liberman 2003), the greater the temporal distance the more likely it is that events will be represented in abstract terms (high-level construal) as opposed to concrete terms (low-level construal). For example, thinking about eating right now may be represented as preparing the food and eating it, while thinking about eating a year from now may be represented as trying to feel good and be healthy. According to time discounting theories (Frederick, Loewenstein, and O'Donoghue 2002 for a review), the greater the temporal distance to an outcome the smaller the perceived value of this outcome. For example, a tasty, rewarding meal may not be perceived to be so rewarding if it will happen in the distant future. This paper proposes an additional way in which temporal distance can influence preferences in decisions requiring self-control. Based on research on the role of activation and inhibition processes in the representation of knowledge structures (Kruglanski et al. 2002), we propose that an increase in temporal distance may lead to inhibition of currently active information. Inhibition of currently active information may result in activation of competing information, which will in turn influence the value of objects. Therefore, when information about indulgence (regulation) is currently activated, people will make indulgent (virtuous) choices for the present, but virtuous (indulgent) choices for the future. In study 1, we used a scrambled sentence task to prime information about indulgence, self-control, and neutral. Then, we asked participants to choose a snack for their participation in the study. They either chose a snack that they would receive at the end of the experimental session or at the end of the semester for their participation in the semester studies, manipulated between-subjects. A binary logistic regression indicated an interaction between the information prime and time frame factors (Wald $\chi^2(2) = 18.83, p < .01$). In the indulgence information prime condition, participants were less likely to choose a healthy snack in the present time frame (22.8%) than in the future time frame condition (62.5%), ($\chi^2(1) = 13.84, p < .01$). In the self-control information prime condition, participants were more likely to choose a healthy snack in the present time frame (58.9%) than in the future time frame condition (30.0%), ($\chi^2(1) = 6.54, p = .01$). In the neutral information prime condition, participants were as likely to choose a healthy snack in the present time frame (50.0%) as they were in the future time frame condition (48.8%), ($\chi^2 < 1$).

In study 2, the same procedure was used with the exception that we measured implicit goal accessibility (i.e., latency of word recognition) after participants thought about snacks they would like to get in the present vs. in the future. A positive score indicates activation of the self-control concept (i.e., faster reaction times for self-control-related words than for neutral words), while a negative score indicates inhibition of the self-control concept (i.e., slower reaction times for self-control-related words than for neutral words). There was again an interaction ($F(1, 209) = 17.12, p < .01$). In the indulgence information prime condition, participants showed inhibition of the self-control concept in the present time frame condition ($M_{Present} = -75$ ms), but activation of the self-control concept in the future time frame condition ($M_{Future} = 80$ ms; $F(1, 209) = 9.22, p < .01$). In the self-control information prime condition, participants showed activation of the self-control concept in the present time frame condition ($M_{Present} = 59$ ms), but inhibition of the self-control concept in the future time frame condition ($M_{Future} = -73$ ms; $F(1, 209) = 7.90, p < .01$).

Study 3 asked participants how much money they were interested in donating to some local charities after information about saving or spending money was primed. We told participants that they could either spend money on shopping or save their money and donate it to charity (the more money they were willing to donate to charity, the more money they were willing to save). There was again an interaction ($F(2, 247) = 4.44, p < .05$). There was an effect of time frame in the spending money information prime condition. Participants were willing to donate less money in the present than in the future ($M_{Present} = \$41.09, M_{Future} = \$81.98; F(1, 247) = 4.45, p < .05$). There was an effect of time frame in the saving money information prime condition. Participants were willing to donate more money in the present than in the future ($M_{Present} = \$78.55, M_{Future} = \$34.24; F(1, 247) = 4.41, p < .05$). There was not an effect of time frame in the neutral information prime condition. Participants were willing to donate the same amount of money in the present and in the

future (MPresent = \$63.50, MFuture = \$60.75; $F < 1$).

These results complement a construal-level-based explanation of self-control in intertemporal decisions. We show that the content of currently active information can also influence the construal of a situation in decisions for the future. In decisions involving a conflict between indulgence and regulation, information that is currently active tends to be inhibited as temporal distance increases. As a consequence of inhibition, this information content decreases in importance for the decision in hand. Marketers may be able to use the operations of these processes to their advantage. A retailer may use the store environment to make information about saving money currently active, but then motivate people to make purchases for a certain occasion (e.g., anniversary, child's birthday) in advance. A store environment that has information about saving money may attract more customers, but these customers may end up spending a lot of money rather than saving money when making purchases for the distant future.

REFERENCES

- Frederick, Shane, George Loewenstein, and Ted O'Donoghue (2002), "Time Discounting and Time Preference: A Critical Review," *Journal of Economic Literature*, 40 (June), 350-401.
- Trope, Yaacov and Nira Liberman (2003), "Temporal Construal," *Psychological Review*, 110 (July), 403-21.
- Trope, Yaacov, Nira Liberman, and Cheryl Wakslak (2007), "Construal Levels and Psychological Distance: Effects on Representation, Prediction, Evaluation, and Behavior," *Journal of Consumer Psychology*, 17 (2) 83-95.
- Kruglanski, Arie W., James Y. Shah, Ayelet Fishbach, Ron Friedman, Woo Young Chen, and David Sleeth-Keppler (2002), "A Theory of Goal Systems," in *Advances in Experimental Social Psychology*, Vol. 34, ed. Mark P. Zanna, San Diego, CA: Academic Press, 331-78.

The Impact of Temporal Focus on the Endowment Effect

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Imagine a consumer interested in buying a three-year-old, pre-owned car. The seller claims that the car is good for nine more years (future focus). On the other hand, the buyer can think of the car as one that has been used for three years (past focus). Do sellers and buyers approach such exchange occasions with pre-determined temporal foci, which diverge from each other? If so, does this variation in the temporal focus affect selling and buying prices? Given the large body of research on the endowment effect (Thaler 1980), demonstrating selling prices of objects to be considerably higher than buying prices, answers to these questions are of considerable theoretical and practical importance.

While the endowment effect has mostly been explained as a manifestation of loss aversion (Kahneman, Knetsch and Thaler 1990), some recent research investigated how sellers' and buyers' foci diverge, which sheds more light into the underlying process of this phenomenon (Carmon and Ariely 2000; Nayakankuppam and Mishra 2005). In the present research, we build on this body of research by investigating how temporal focus affects selling and buying prices of objects. Since time is an inherent factor in the evaluation of pre-owned products, we focus on such products in our research. Research on time perspective literature suggests that future-orientation entails a focus on future goals and a tendency to relate immediate choices to distant objectives (Lewin 1948). Past-orientation, on the other hand, involves a focus on similar previous situations with their accompanying positives and negatives. Importantly, Zimbardo, Keough and Boyd (1997) contend that though time perspective tends to be a functional cognitive style, it can vary as a function of situational, structural, and task demands. Based on this, and the aforementioned research on the endowment effect (Carmon and Ariely 2000; Kahneman, Knetsch and Thaler 1990; Nayakankuppam and Mishra 2005), we predict that, when a pre-owned product is presented in the future temporal frame, sellers, with ownership as their point of reference, will view the sale as a loss of the future benefits, while buyers will incorporate both past and future aspects of the product in their evaluation. Consequently, selling prices will be higher than buying prices. When the product is presented in the past temporal frame, however, sellers will not be able to focus solely on future benefits of the product, resulting in no significant difference between selling and buying prices, i.e., mitigation of the well-established endowment effect. We

tested these predictions across three studies, which are described next.

One hundred and forty-six undergraduates participated in a study employing a 2 (Role: buyers vs. sellers) \times 2 (Temporal Frame: past vs. future) between-subjects design. Participants were told to imagine themselves as buyers (sellers) of three-year-old, single-owner car, originally worth \$20,000. They were further informed that the car was in good shape and had an average life of twelve years. We manipulated the temporal focus in the following way: “Given that 3 years (9 years) of the car’s 12-year lifetime have already passed (are still to come), if you were to buy (sell) this car what would be your maximum (minimum) price?” The dependent variable was participants’ reservation price for the car.

Consistent with the endowment effect, an ANOVA showed that sellers provided higher reservation prices ($M = \$13,920$) than did buyers ($M = \$13,075$), $F(1, 133) = 5.38, p < .05$. More importantly and, as expected, there was a significant two-way interaction between Role and Temporal Frame ($F(1, 133) = 3.94, p < .05$). Simple contrasts revealed no significant difference between selling and buying prices in the past temporal frame ($M_{\text{sell}} = \$13,590, M_{\text{buy}} = \$13,471, p = .82$). On the other hand, selling prices were significantly higher than buying prices in the future temporal frame ($M_{\text{sell}} = \$14,222, M_{\text{buy}} = \$12,679, p < .05$; see figure 1).

The purpose of the second study was to extend the generalizability of our findings by replicating the findings in a different product domain. As such, in study 2, we used season tickets, a product that is different from that of study 1 in two major ways. First, season tickets are not durable products. It can be argued that the utility derived from a durable product is continuous through the period of ownership. Recent research suggests that the nature of consumption experience (i.e., continuous vs. discrete experiences) impacts consumers’ evaluation, enjoyment and behavior (Cheema and Soman 2008; Nelson and Meyvis 2008). Second, the value of the product used in the previous study (i.e., car) diminishes in time due to depreciation. We wanted to replicate previous findings by using products of which value does not diminish due to depreciation (e.g., season tickets). This is important because past versus future focus may differentially affect the valuation of a product of which value depreciates in time.

One hundred and twenty-one undergraduates were randomly assigned to one of the four experimental conditions in a study with a 2 (Role: buyers vs. sellers) \times 2 (Temporal Frame: past vs. future) between-subjects design. Similar to the previous study, participants were told to imagine themselves as buyers (sellers) of their university’s football team’s season-ticket, which includes seven home games, originally costing \$250. We manipulated the temporal focus by informing participants that the transaction takes place when 2 out of 7 games have been already played (5 out of 7 games are still to be played). Reservation prices were then elicited.

ANOVA revealed a significant two-way interaction between Role and Temporal Frame ($F(1, 119) = 3.70, p < .05$). Simple contrast analysis revealed no significant difference between selling and buying prices in the past temporal frame ($M_{\text{sell}} = \$173, M_{\text{buy}} = \$180, p = .72$). In the future temporal frame, however, there was a significant difference between selling and buying prices ($M_{\text{sell}} = \$197, M_{\text{buy}} = \$152, p < .05$; see figure 2).

The objective of study 3 was to explore how chronic temporal focus (i.e., temporal orientation) affects selling and buying prices of an object. We reason that if past temporal framing mitigates the endowment effect, then there should not be a significant difference between selling and buying prices of a pre-owned product among those who are chronically past-oriented.

Ninety undergraduates participated in the study. They were told to imagine themselves as buyers (sellers) of three-year-old, single-owner car, originally worth \$20,000. They were further informed that the car was in good shape and had an average life of twelve years. Reservation prices were then elicited. We then measured participants’ past orientation by using a scale adapted from Zimbardo’s time inventory (see Appendix for the items). Four items were averaged to create an index of past orientation ($\alpha = .74$).

A regression analysis revealed a significant two-way interaction between Role and past orientation ($\beta = -.46, t(89) = -2.04, p < .05$; see figure 3). Since past orientation is a continuous variable, we performed a spotlight analysis at plus and minus one standard deviation away from the mean of past orientation (Fitzsimons 2008). The planned contrasts at low levels of past orientation did show a positive simple effect of Role ($\beta = .73, t(89) = 2.49, p < .05$); however, as expected, this effect was not significant at high levels of past orientation ($\beta = -.18, t(89) = -.58, p = .56$).

Psychological Connectedness and Temporal Discounting of Consumption Experiences

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The literature on time preference has documented extremely high implicit discount rates in both hypothetical choices and observed behavior (Frederick, Loewenstein, & O'Donoghue, 2002). Economists offer several reasons why a rational actor might choose to consume a smaller amount of some good now, rather than a larger amount later—most of which concern the way that time affects the magnitude (or probability) of utility conferred by a delayed consumption experience. Most of these accounts of rational choice assume, however, that the preference for sooner-smaller options is due to the need to be compensated for the delay of benefit being received only by the future self, who is otherwise undistinguished from the current self. In this view, rationality demands acting in a manner consistent with maximizing some function of self-interest over time, and that the implied discount rate should relate to the cost of capital, and perhaps a risk premium relating to illiquidity or loss of the delayed outcome.

One account that differs radically from standard economic views is offered by Parfit (1984), who maintains that rationality does not require you to treat all parts of your life equally: He argues that personal identity consists of a series of partially-overlapping persons extending over time. One implication is not all descendant future selves are equally “you”. Thus, just as you are not rationally required to care as much about others’ welfare as your own, so too, if your descendant future self is sufficiently different in terms of personality, beliefs, and desires from your current self, you are not rationally required to care as much about your future self’s welfare. Impatience can thereby be justified, above and beyond any economically justifiable rate of discounting, insofar as you anticipate changes in your psychological connectedness over time.

In the current studies, we test the influence of people’s intuitions about the (in)stability of their personal identity over time on their (im)patience for future utility. Study 1 investigated the relation between elicited patience and perceptions of psychological connectedness in people’s judgments about their own future selves. Participants in this study rate the connectedness between their present state and their likely state at different times in the future. They also make judgments about the equivalence of present and future goods. Correlations between these judgments suggest that large decreases in connectedness, over time periods, are associated with greater impatience for monetary benefits.

In an additional study, we manipulated people’s own perceptions of self-connectedness. In Study 2, a sample of seniors who were about to graduate read a passage that described the degree of change they could expect in their lives after graduation. For half the sample, the passage suggested that college graduation is a major life-changing experience, while the other half read a passage suggesting that, although day-to-day living conditions change after graduation, personal identity remains invariant. Then, they were presented with real choices (for the winners of a lottery drawing) between gift cards of lower values that were to be redeemed immediately and higher-value gift cards that could not be redeemed until a year later. We find that when participants believed their impending graduation presaged a major change in self-connectedness, they exhibited more impatience and were more likely to choose the smaller-sooner gift card. The effect was robust, controlling for belief in the passage as well as beliefs about future availability of money and time. Study 3 (in progress) uses a very similar manipulation with an underclassmen sample, presenting them with choices between sooner, smaller valued gift cards versus gift cards plus a delay premium after reading either that identity changes radically in early adulthood, especially during the college years or that the core features of one’s identity are fixed in early childhood. The pilot data we have collected replicates Study 2’s results: Reading about change promotes impatience relative to reading about stability.

In contrast to the previous work on the topic that concluded that there was no evidence for a relationship between connectedness and discounting (Frederick 2003), we find evidence that people anticipating large changes in psychological connectedness look relatively impatient—choosing to speed up the consumption of utility. Conversely, those anticipating small changes appear more patient. Our findings have the potential to shed light on the long-standing problem of “excessively” high discount rates.

Social Communication and Influence Resulting from Similarity

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Seeing Ourselves in Others: Consumer Compliance with Recommendations Made by Ambiguous Agents

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Consumers seeking product recommendations have typically obtained this information from either professional agents (Solomon, 1986; West, 1996) or friends and family members (Brown and Reingen, 1987). However, many websites now offer consumers a new source for product information: consumer-to-consumer recommendations in which no personal information is provided about the reviewer. The primary research question we seek to address is therefore: how do consumers respond to recommendations made by an ambiguous reviewer (i.e., a reviewer about whom no personal information is available)? Previous research on agent recommendations suggests that giving consumers more information about a recommender will increase compliance with the recommendation if that recommender is similar to the consumer (Feick and Higie, 1992; Gershoff and Johar, 2006). Hence, past research suggests that reviewer ambiguity would *decrease* compliance with reviewer recommendations since consumers will be unsure whether the reviewer is similar (which would increase compliance) or dissimilar (which would decrease compliance) to themselves. However, Norton, Frost, and Ariely (2007) argue that ambiguity can be beneficial (e.g., potential dating partners are liked more when people have less information about them because more information increases the likelihood of discovering dissimilarity between oneself and a potential partner).

We propose that when provided with no information about a reviewer, consumers project their own characteristics onto that reviewer. We attribute this phenomenon to an effect we term egocentric anchoring. Egocentric anchoring occurs when consumers anchor their evaluation of an ambiguous stimulus in their own identities. They then fail to adjust such evaluations to take into account the extent to which their own or others' opinions are idiosyncratic. Therefore, we predict that consumers will respond as positively to recommendations made by ambiguous reviewers as they do to recommendations by reviewers that they know are similar to themselves. Essentially, we propose that when information about reviewers' tastes is left ambiguous, participants assume these reviewers share their own tastes.

To test our hypotheses, in Study 1a each participant read a restaurant review ostensibly written by another consumer. The review was designed to be slightly positive in order to make the restaurant attractive but to avoid ceiling effects. The text of the review was held constant across all conditions, and amount and type of reviewer information was manipulated such that participants saw either (1) no information about the reviewer (ambiguous reviewer condition), (2) information about a reviewer who was similar to the average student at their university (similar reviewer condition), or (3) information about a reviewer who was different from the average student at their university (dissimilar reviewer condition). In the similar and dissimilar reviewer conditions, the participants saw nine units of demographic information that were either similar or dissimilar to themselves (gender) or to the average student at their university (age, university attended). Participants then rated, on a nine-point scale, how likely they would be to try the restaurant and how similar they thought the reviewer was to themselves in terms of restaurant taste.

To analyze the results, we used orthogonal contrast codes comparing (1) the similar reviewer condition to the ambiguous reviewer condition and (2) the ambiguous and similar reviewer conditions to the dissimilar reviewer condition. As predicted, participants in the similar reviewer ($M = 5.99$) condition showed no difference in likelihood of trying the recommended restaurant compared to participants in the ambiguous reviewer condition ($M = 6.00$), $F(1, 216) = 0.00$, $p > .95$. However, compliance with the recommendation was significantly lower for the dissimilar ($M = 5.37$) compared to the similar and ambiguous reviewer conditions, $F(1, 216) = 11.01$, $p < .01$. We next compared participants' ratings of similarity in the similar versus ambiguous reviewer conditions. Participants perceived the reviewer in the ambiguous condition to be equally similar to themselves ($M = 5.42$) compared to the reviewer in the similar reviewer condition ($M = 5.59$), supporting our egocentric anchoring explanation. Further, the difference in perceived similarity between the dissimilar reviewer condition ($M = 4.46$) and the other two conditions mediated the relationship between the dissimilar

versus similar and ambiguous reviewer conditions and likelihood of trying the restaurant, $z = 3.93, p < .01$. In Study 1b we used reviews in a different product category (beach vacation resorts) with the same three-level reviewer variable and an additional two-level review positivity variable (i.e., participants saw either a positive review or a negative review). The results in the positive review condition replicate the findings of Study 1a, while the results in the negative review condition demonstrate that our effect is not restricted to positive recommendations. When consumers are presented with a negative review, their reported likelihood of going to the resort is lower for the similar and ambiguous reviewer conditions (i.e., compliance with the recommendation is higher) compared to the dissimilar reviewer condition. The goal of Study 2 was to provide additional evidence that these results are driven by the egocentric anchoring effect. We hypothesize that priming participants to think about others (by describing the other people in the room) rather than themselves will decrease their tendency to anchor on their own characteristics. Therefore, other-priming should decrease compliance with an ambiguous reviewer's recommendation. Study 2 therefore used the restaurant review context and three-level reviewer variables from Study 1a and added a two-level priming variable. Participants either described themselves or other people in the room as part of a prior, ostensibly separate task before reading the review. The results of Study 2 support our predictions. In this study, we found a significant interaction between the priming variable and the similar versus ambiguous reviewer contrast, $F(1, 194) = 4.41, p < .05$. When primed to think about themselves, the results of Study 1 were replicated such that there was no difference in compliance with the recommendation between the similar and ambiguous reviewer information condition. However, when participants were primed to think about others, they were significantly less likely to try the restaurant in the ambiguous ($M = 5.54$) versus similar reviewer condition ($M = 6.50, F(1,98) = 11.75, p < .01$), thus providing additional evidence that the egocentric anchoring effect drives our results.

- Brown, J. J. & Reingen, P. H. (1987), "Social Ties and Word-of-Mouth Referral Behavior," *Journal of Consumer Research*, 14 (December), 350–362.
- Feick, L. & Higie, R.A. (1992), "The Effects of Preference Heterogeneity and Source Characteristics on Ad Processing and Judgments about Endorsers." *Journal of Advertising*, 21 (Summer), 9-24.
- Gershoff, A. D. & Johar, G. V. (2006), "Do You Know Me? Consumer Calibration of Friends' Knowledge," *Journal of Consumer Research*, 32 (March), 496-503.
- Norton, M. I., Frost, J. H. & Ariely, D. (2007), "Less Is More: The Lure of Ambiguity, or Why Familiarity Breeds Contempt." *Journal of Personality and Social Psychology*, Vol 92(1), Jan 2007. pp. 97-105.
- Ross, L., Greene, D., & House, P. (1977), "The False Consensus Effect: An Egocentric Bias in Social Perception and Attribution Processes," *Journal of Experimental Social Psychology*, 13 (May), 279–301.
- Solomon, M. R. (1986), "The Missing Link: Surrogate Consumers in the Marketing Chain," *Journal of Marketing*, 50 (October), 208–218.
- West, P. M. (1996), "Predicting Preferences: An Examination of Agent Learning," *Journal of Consumer Research*, 23 (June), 68–80.

Leapfrogging Over the Joneses: Effects of Inequality on Conspicuous and Inconspicuous Consumption

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It is a well-known and well-deplored fact that less well-off people spend more on status-conferring products and save less money as a proportion of their income than richer people (Bagwell and Bernheim 1996; Christen and Morgan 2005; Duesenberry 1949). Economists have argued that one solution to this problem is to reduce the inequality of income or possessions in society through redistribution policies (Frank 1985, 1999). Although reducing the inequality of the endowment distribution increases the satisfaction of people at the bottom of the distribution, this argument overlooks the fact that it may also increase the gains in status (i.e., improvement in social rank) resulting from consumption. In this research, we examine how the distribution of endowment across people affects conspicuous and inconspicuous consumption by low-tier people. We hypothesize that reducing the inequality of endowments through a luxury tax (i.e.,

reducing the proportion of people at top tiers and increasing the proportion of people at middle tiers of the distribution) increases the satisfaction and reduces the envy of people in the lowest tier of the distribution. However, it also increases gains in their rank resulting from consumption. Therefore, although reducing inequality may discourage consumption when people focus on their own endowment (for inconspicuous consumption, when social indifference is primed, and in cooperative social environments), it may actually encourage consumption when people focus on gaining social rank (for conspicuous consumption, when social competition is primed, and in competitive social environments). Finally, we predict that this effect is similar regardless of whether status is observable and narrowly construed (as possession of a specific product) or unobservable and broadly construed (as income). We test these hypotheses in five experiments.

In study 1, we examined the effect of reducing inequality on envy and conspicuous consumption by low-tier individuals. We manipulated between subjects the distribution of people's endowments with a conspicuous product—the number of rose bushes in the front garden. In the scenario, 10% of people had no rose bushes. Forty percent of people had two rose bushes in the low inequality distribution and only twenty percent did so in the high inequality distribution. Buying three bushes enabled the 10% of people with no bushes to get ahead of 40% of people in the low inequality distribution and only 20% in the high inequality distribution. The results supported our main prediction that people in the lowest tier were less envious but spent more when inequality was low than when it was high.

In study 2, we tested the same prediction in the context of an ultimatum game, where participants chose to spend their own money to acquire status. We further tested our theory by examining the spending decisions of individuals with high and low endowment. The participants were told that they would play an ultimatum game, in which they would split 10 chocolates with one other participant. Prior to the game, they were randomly assigned one star (low endowment) or three stars (high endowment), and they saw a low or high inequality distribution of stars supposedly obtained by participants on previous days. The participants believed that the number of stars would be public during the game and could affect the final share. For this reason, before the actual game, the participants were given a chance to improve their endowment by buying two additional stars at their own expense. We measured the willingness to buy stars and found that, consistently with our theory, low-endowment individuals were more willing to buy additional stars when inequality was low (vs. high), but the opposite occurred for high-endowment individuals.

In study 3, we examined the effect of inequality on satisfaction (vs. envy in study 1), rank gains, and conspicuous consumption and inconspicuous consumption. The participants read three scenarios (home garden, home decoration, and clothing) about a person who was in the fifth (lowest) tier of the distribution of conspicuous products (rose bushes in the front garden, a flat-screen TV in the living room, and branded scarves) or inconspicuous products (pine trees in the back garden, a decorative mirror in the living room, and quality scarves). The distribution was more or less unequal as in study 1. The participants predicted (1) how willingly the fifth tier person would spend money on a third tier conspicuous or inconspicuous product, (2) how satisfied she was with her initial position, (3) the degree to which consuming a third tier product would improve her status. We found that reducing inequality increased satisfaction, but it also increased perceived rank gains. As a result, inconspicuous consumption was lower but conspicuous consumption was higher in the low inequality distribution.

In studies 4 and 5 we tested the moderating role of status importance by priming social competition or social indifference (study 4) and by manipulating the competitiveness of the social environment (study 5). We also examined whether our predictions would hold when status is unobservable and construed broadly in terms of income (vs. possessions in studies 1-3).

In study 4, we first primed social competition or social indifference in a scrambled sentence task. Then, the participants read a newsletter featuring a more or a less unequal distribution of income at their workplace, and they were in the second lowest tier of the distribution. Finally, they chose between a trendy restaurant (conspicuous option) and a local bistro (inconspicuous option) for a dinner with a colleague. We found that reducing inequality boosted the preference for the conspicuous option when social competition was primed, but it decreased this preference when social indifference was primed.

In study 5, the participants read the same scenario as in study 4, only the scenario involved rival co-workers in the competitive environment condition or community friends in the cooperative environment scenario. Again, reducing inequality boosted the preference for the conspicuous option in the competitive context, but lowered it in the cooperative

context.

In summary, we found that reducing endowment inequality increases satisfaction and reduces envy among low-tier people, but it also increases the potential gains in rank resulting from consumption. As a result, reducing inequality decreases consumption when social status is not important, but it boosts consumption when status is important. By providing insights about the drivers of conspicuous consumption and the potential effectiveness of wealth redistribution policies, our results have important implications for marketers and public policy makers.

Bagwell, Laurie Simon, and B. Douglas Bernheim (1996), "Veblen Effects in a Theory of Conspicuous Consumption," *American Economic Review*, 86 (3), 349-373.

Christen, Markus and Ruskin Morgan (2005), "Keeping Up With the Joneses: Analyzing the Effect of Income Inequality on Consumer Borrowing," *Quantitative Marketing and Economics*, 3 (2), 145-173.

Duesenberry, James (1949), *Income, Saving and the Theory of Consumer Behavior*, Cambridge, MA: Harvard University Press.

Frank, Robert (1985), "The Demand for Unobservable and Other Nonpositional Goods", *American Economic Review*, 75 (1), 101-116.

Frank, Robert (1999), *Luxury Fever: Money and Happiness in an Era of Excess*, Princeton, NJ: Princeton University Press.

Veblen, Thorstein (1899), *The Theory of the Leisure Class*, New York: Sentry Press.

The Loss of Certainty in Consumer Communications: Causes, Consequences, and Potential Remedies

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Consumers often share or exchange information about their experience with products and services with one another in face to face interactions, over email, or by leaving feedback on websites such as Amazon.com. The present research examines consumers' propensity to transmit the certainty associated with their attitudes when sharing their attitudes with others. Based on prior work showing that certainty is an important catalyst in motivating consumers to act on their attitudes (e.g., Basilli, 1996; Fazio and Zanna 1978), we submit that it is of paramount importance to understand how certainty is communicated from one consumer to another. Knowing whether another consumer is certain or uncertain should have an effect on a recipient's certainty, and thus impact behavior. Although not studied empirically, we believe there is reason to postulate that information regarding one's certainty or uncertainty is often less likely to be expressed and thus is often lost in transmission.

Whereas attitudes are primary beliefs (e.g., I like this car), certainty is a metacognition or a secondary belief (e.g., how certain am I of my attitude towards the car). Consistent with recent developments in the attitudes literature suggesting that attitudes and certainty are stored separately, and retrieved hierarchically (Petty 2006), we propose that certainty, as a metacognition, is less likely to be communicated by consumers compared to attitudes. Specifically, we suggest that because the monitoring of one's certainty requires additional effort and direction, consumers' certainty might be less accessible and thus less likely to be transmitted at the time of communication. For this reason, we propose that in consumer to consumer communications, such as word of mouth, certainty should be less likely to be expressed compared to attitudes. That is, even when consumers hold favorable attitudes of which they are highly certain, the certainty underlying these attitudes might be lost during the transmission process. Because subsequent consumers (i.e., receivers) are less likely to be aware of the certainty of the communicating consumers (i.e., sender) they might in turn be less certain of their own attitudes. That is, while forming their own attitude and certainty, they would lack the information that the attitude is supported by a strong degree of conviction.

Experiment 1 tested whether certainty is indeed lost in transmission more so than attitudes. The experiment was conducted in several phases. Participants in phase 1 read a staged message about a hotel. The valence of the message was either positive or negative, and the certainty expressed by the source of the message was either low or high. This produced

independent differences in both favorability and certainty among participants in the initial position of the chain. Subsequently, these participants wrote a WOM communication about the hotel that was read by another participant. This procedure was repeated until we obtained a chain of four participants who had each received a prior message and written their own message to a subsequent participant. Coders, blind to condition, coded their messages on two dimensions: a) the favorability of their thoughts, and b) the thoughts conveying certainty and or uncertainty. Results indicated that although the favorability of thoughts was stable across the chains of participants as a function of initial valence, differences in certainty-related thoughts decreased over time. Put differently, participants progressively became less extreme in their certainty or uncertainty further along the transmission.

Experiment 2 tested whether the observed loss of certainty was due to its lower accessibility. A priming manipulation was used to subtly activate individuals' attention to their certainty. If the loss of certainty stems from senders not thinking about their certainty at the time of transmission, increasing consumers' awareness of their certainty prior to transmission should increase its transmission. Participants in the initial phase received a message from a source inducing high or low certainty about a hotel, but equally favorable attitudes. Subsequently, participants in this initial phase completed an ostensibly unrelated crossword puzzle containing either a) words related to certainty and uncertainty or b) filler words. Participants then wrote a message about the hotel that was received by participants in a second phase. Results showed, when consumers' certainty was not accessible, there was much less transmission of certainty compared to when their certainty was made salient. Consequently, participants in the second phase were likely to show larger differences in certainty when the prior participant had been made aware of his certainty (uncertainty). Importantly, across all conditions, attitudes did not differ, suggesting an asymmetry in the transmission of attitudes and certainty. Finally, in both phases, participants with high certainty reported greater behavioral intentions than those with low certainty.

Experiment 3 provided a further test of the asymmetrical relation between attitudes and certainty, and proposed a potential managerial remedy to prevent the loss of certainty. Participants in the initial phase received a message promoting a brand of toothpaste. To manipulate certainty, the message came from an expert (high certainty) or non-expert (low certainty) source. The message arguments were strong and positive to hold attitudes constant and positive (Rucker & Petty, 2004). Then, participants wrote a message about the toothpaste and finally reported their attitudes and certainty. Participants in the second phase either received the message and attitude score of one prior participant, or received the message, attitudes, and certainty scores of one prior participant. We found that participants in the second phase were more likely to show a difference in certainty and behavior as a function of the prior participant' certainty when that certainty was explicitly provided.

Conclusion and Contributions. The present research provides the first empirical examination, and conceptual proposition, of how attitude certainty is shared and transmitted. In particular, certainty is found to be less readily accessible than attitudes and is thus more susceptible to being lost in transmission. In addition, the failure of initial consumers to communicate certainty is shown to be consequential for subsequent consumers' certainty and behavioral intentions. Further, the present work offers remedies regarding the loss of certainty.

Brand Relationships

Chair: Leigh Anne Novak, University of Southern California

Discussion Leader: Steven Posavac, Vanderbilt University

Celebrity Endorsement and Self-Brand Connections

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People engage in consumption behavior in part to construct their self-concepts and to create their personal identities (Richins 1994; McCracken 1989; Belk 1988). We examine one aspect of this construction process, namely the appropriation of the symbolic meanings of brands derived from celebrity endorsement. Building on McCracken's (1989) theory of meaning movement, we propose that the symbolic properties of the celebrity become associated with the brands the celebrity endorses. These symbolic meanings can then be transferred from the celebrity to consumers as they select brands with meanings congruent with their self-concept. When the symbolic properties associated with brands via celebrities are used to construct the self or to communicate the self-concept to others, a connection is formed with the brand. In a series of three completed studies, we provide empirical support for the notion that brands endorsed by celebrities are connected to consumers' self-concepts as they use these brands to define and create themselves. Our results support the hypothesis that the self-construction process is moderated by the degree to which the brand communicates something about its user. Our studies also confirm the hypothesis that the self-construction process is driven by self-enhancement motivations in consumers as they attempt to repair or build self-esteem (cf. Escalas and Bettman 2003). Our research explores the notion that celebrity endorsement is a source of symbolic brand meaning. Consumers form associations between the symbolism associated with the celebrity and the brands they endorse. This process works best when there is a match between what the celebrity symbolizes and the brand image (McCracken 1989). Next, these meanings are transferred from the brand to the consumer as consumers actively construct themselves by selecting brands with meanings relevant to an aspect of their self-concept. Consumers form connections to brands that become meaningful through this process, and self-brand connections are intended to measure the extent to which individuals have incorporated brands into their self-concept (Escalas 2004). A critical distinction in terms of such construction processes is that between brand associations derived from celebrities with whom consumers identify or feel an affinity and associations derived from celebrities that consumers do not like or do not perceive as being similar to themselves. Consumers are likely to accept meanings from brands associated or consistent with a celebrity whom they perceive as similar to themselves or whom they aspire to be and to reject meanings associated or consistent with a celebrity who does not represent either who they are or who they would like to become. We propose that when consumers appropriate or distance themselves from brand associations based on celebrity endorsement, they do so in a manner that is consistent with self-related needs, such as self-enhancement (Escalas and Bettman 2003). Results from our series of three studies show that the degree to which celebrity usage influences self-brand connections is contingent on both the consumer's assessment of the degree to which the celebrities' image and the brand's image match and the degree to which the consumer aspires to be like the celebrity, with a negative effect when the consumer rejects the symbolic associations of the celebrity. We consistently find a significant interaction of celebrity-aspiration level by celebrity-brand-image-match on self-brand connections across all three studies. Furthermore, we find this effect is moderated by the degree to which the brand is able to communicate something about the user (significant three-way interaction with brand communicativity). The positive effect of celebrity endorsement on self-brand connections is stronger for brands that are perceived to communicate something symbolic about the brand's user compared to brands that do not. On the other hand, symbolic brands are more likely to be rejected when endorsed by non-similar, disliked celebrities.

Our studies also examine whether self-enhancement needs moderate the influence of celebrity endorsement on self-brand connections. Research on reference groups has found that consumers with strong self-enhancement goals tend to form self-brand connections to brands used by aspiration groups, that is, groups for which the consumer wishes to become a member (Escalas and Bettman 2003). We find a similar process is at work with celebrity endorsement. For example, in

one of our studies, we threaten self-esteem for half the participants, thus activating self-enhancement goals. This activation significantly increases the extent to which celebrity endorsement positively influences self-brand connections for celebrities who have characteristics that the consumer aspires to possess, while lowering self-brand connections in the case of celebrities whom the consumer does not aspire to be like. Thus, our research demonstrates that self-enhancement motivations drive the process by which consumers build connections to favorable celebrity images or distance themselves from unfavorable celebrity images.

Forgiving by Not Forgetting: The Effect of Compensations following Brand Transgressions

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Imagine that you are checking-in for your flight on United Airlines. At the ticket counter, the airline attendant informs you that your flight is overbooked and that you have been bumped off and rescheduled to leave on a flight the following day. The attendant apologizes on behalf of United Airlines by offering you a voucher for a future free flight on United. Consider your reaction. Despite United's recovery efforts, might the United voucher aggravate you even more—particularly given they just bumped you off your flight? What if they instead offered you a voucher for a free meal at an upscale restaurant? More generally, if United wants to keep you “onboard” as a loyal consumer, which of the two forms of compensation should they offer you, and why?

Although a considerable amount of consumer psychology research has focused on the occurrence and impact of transgressions on consumer-brand relationships (e.g., Aggarwal 2004; Bolton and Lemon 1999; Folkes 1984; Grayson and Ambler 1999), much less work has examined when recovery efforts serve to further hurt a brand versus repair consumer attitudes, and why such effects may occur. This sparseness of research is even more surprising in light of research noting that nearly all partners in close relationships eventually behave badly (Finkel et al. 2002; Rusbult et al. 1991) and that recovery efforts vary considerably in their effectiveness (Davidow 2003; Maxham and Netemeyer 2002a).

The goal of this research is to address the aforementioned questions by examining brands' compensation efforts following a transgression and the differential ability of those efforts to promote consumers' forgiveness. To do so, we build on a recent literature stream which argues that transgressions may serve as defining moments in consumer-brand relationship development that, if managed properly, can in fact strengthen (rather than threaten) the relationship (Aaker, Brasel and Fournier 2003; Smith and Bolton 1998). However, rather than focusing on the severity of the transgression or on the fit between the transgression and the compensation as prior work has (e.g., Gilly and Gelb 1982; Maxham and Netemeyer 2002b; Smith, Bolton, and Wagner 1999), we focus specifically on the type of compensation—whether it relates to the brand (e.g., United voucher) or is unrelated to the brand (e.g., voucher for an upscale restaurant).

Drawing on principles of accessibility and the literature on the psychology of relationships, we posit and show that the effectiveness of these two compensation types depends on (a) whether a prior relationship with the brand exists and (b) the nature of that relationship. The results from three experiments demonstrate that when consumers have a positive prior relationship with the brand, the attention culled by the brand-related compensation can prime that positive prior relationship, diverting attention from the transgression. In such cases, brand-related (vs. brand-unrelated) compensations are indeed effective. However, brand-related compensations become ineffective when there is no such prior relationship to prime, and can even backfire when the prior relationship was negatively-valenced. Insight into the underlying process was documented through tests of moderation where transgressions were manipulated (Café Study), were imagined (Airline Study), and naturally occurred (Baseball Study).

First, the Café Study was conducted at a café among customers with prior brand relationships to test whether a brand transgression followed by a brand-related compensation (a brand name inscribed coffee mug) or a brand-unrelated compensation (a “Coffee” inscribed coffee mug) would induce more positive attitudes. After the café employee had “messed up” their order, customers reported more positive attitudes from receiving the brand-related compensation than from receiving the brand-unrelated compensation.

Next, the Airline Study was a scenario-based study conducted among travelers as they were waiting to board their flights. These travelers reported to either have positive or negative prior relationships with the airline. Results revealed that

following a brand transgression, although travelers with positive prior brand relationships reported more positive attitudes from receiving a brand-related compensation (an airline voucher), travelers with negative prior brand relationships reported more positive attitudes from receiving a brand-unrelated compensation (a restaurant voucher). Finally, the Baseball Study was conducted among attendees of college baseball games wherein the team either won or lost. Results revealed that after having been let down by a team loss, attendees who had a positive prior relationship with the team reported more positive attitudes from receiving a brand-related compensation (a team t-shirt) than a brand-unrelated compensation (an ice cream gift certificate). However, the attitudes of attendees who did not have a prior relationship with the team were not differentially affected by the type of compensation received. Together, these findings (a) suggest how brand managers should focus their recovery efforts following a transgression, and (b) provide insight into the psychological mechanism by which prior relationships influence the pursuit of future relationships, despite negative interactions.

Brand Transgressions: When are Consumers Willing to Forgive?

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We investigate brand transgressions and under what circumstances consumers are willing to forgive the brand. Research in consumer behavior suggests that consumers are able to form many types of meaningful relationships with brands, ranging from flings to committed partnerships (Fournier 1998; Fournier and Yao 1997). These brands are able to add meaning to the lives of consumers and are used to create and communicate self concepts (Escalas and Bettman 2003; Fournier 1998; Thomson, MacInnis, and Park 2005).

However, research in consumer behavior has yet to specify many specific consequences of brand relationships (Hess and Story 2005) such as forgiveness. This research investigates forgiveness, or the enactment of restorative behaviors under conditions of relationship mishaps, in the context of consumer brand relationships and how consumers will react to a product failure.

In person-to-person relationships people often enact restorative behaviors to maintain a relationship. Relationship research in psychology has demonstrated that individuals who are attached or highly committed to their relationship partner demonstrate many restorative relationship maintenance behaviors (Johnson and Rusbult 1989; Rusbult, Verette, Whitney, Slovik, and Lipkus 1991; van Lange, Rusbult, Drigotas, Arriaga, Witcher, and Cox 1997). When individuals have a desire to maintain a relationship with another person, they often perform, or forgo, behaviors that enhance, maintain, or promote long-term relationship stability (Johnson and Rusbult 1989; Rusbult, Verette, Whitney, Slovik, and Lipkus 1991; van Lange, Rusbult, Drigotas, Arriaga, Witcher, and Cox 1997).

People are able to forgive the other in person-to-person relationships; we are interested in whether consumers are also willing to enact these restorative behaviors in consumer brand relationships.

Attachment has been proposed as a discriminating characteristic of relationship types, because feelings of attachment are the essence of all strong brand relationships (Fournier 1998; Park, MacInnis, and Priester 2006). Recently, Park, MacInnis, and Priester (2006) extended the brand attachment literature as they explored how brand attachment affects relationship-based exchange behaviors. Brand attachment is a combination of two critical components (1) the degree of brand-self connectedness felt by the consumer and (2) the prominence with which brand-related thoughts and feelings are retrieved (Park, Priester, MacInnis and Iacobucci 2008). They found that consumers who have formed an attachment to the brand desire to maintain proximity to the brand, for fear of separation distress, and individuals are more willing to give their resources, such as time and money, to maintain a relationship with the brand (Park et al. 2008). Following this line of research, we predict that brand attachment may also promote forgiveness when a brand commits a transgression.

When individuals are confronted with a brand failure, we propose that the level of attachment the individual has to the brand will influence whether these individuals decide to forgive the brand and remain loyal to the brand. Specifically, we predicted that the brand loyalty ratings for individuals who are high in attachment will not differ when faced with a either

a good outcome or a bad outcome in a scenario, but the loyalty ratings for those who are low or moderate in attachment will significantly depend on the outcome of the consumption situation.

To examine this proposition, we conducted two studies to test whether attachment promotes forgiveness in consumer brand relationships after the brand has committed a transgression. In the first study we manipulated the outcome of a brand experience, either creating a transgression (a bad outcome) or not (a good outcome). Our focal product was the Apple iPod because many students own an iPod and attachment to the iPod was expected to vary. The outcome (good vs. bad), was manipulated through a scenario as a between subjects independent variable. Following previous satisfaction research, identical expectations were first established for each participant. Next, all participants were asked to imagine that they had spent an hour-and-a-half compiling a playlist, which they were very excited to listen to, on their iPod for an upcoming vacation. In the good outcome scenario participants were informed that they were able to listen and enjoy their new playlist while on vacation. In the bad outcome scenario participants were told, “When you arrive at your vacation destination your iPod screen is black and will not turn on. Your iPod will not play your new playlist or any of your songs on it. You contact Apple and they say that this has been a common problem and that if you send in your iPod they will fix it and mail it back to you. However, now you will not be able to listen to your iPod on your vacation.”

Our results show that there is an interaction between attachment and outcome on loyalty. We found that loyalty for those individuals who are high in attachment is not affected by the outcome manipulation. However, for those individuals who are low in attachment, the outcome significantly affects their loyalty scores and behavioral intentions. Individuals who are moderate in attachment are also affected by the outcome.

This demonstrates that individuals who are high in attachment can forgive the brand and still desire to maintain the relationship even after a transgression. This is the first study to empirically demonstrate that individuals who are attached to brands can undergo a brand failure and remain loyal because of their attachment to the brand.

We conducted a second study to directly assess brand forgiveness after a brand transgression. For this study we used Starbucks as our focal brand. We measured attachment and manipulated brand transgressions. The results show that brand attachment directly affects consumer forgiveness of a brand. Only those individuals who were high in attachment were able to highly forgive the brand.

Minding the Mindsets in Context Effects

Chair: Uzma Khan, Stanford University

Discussion Leader: Joel Huber, Duke University

Valance Asymmetries in Preference: The Case of Attraction Effect

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Extant research in consumer behavior dealt with context effects, examining how individuals are susceptible to seemingly small (and often rationally irrelevant) factors in the decision environment. One of such effects, the attraction effect (a.k.a. asymmetric dominance) refers to the phenomenon whereby an asymmetrically dominated alternative, when added to a set, increases the attractiveness and choice probability of the dominating alternative (Huber, Payne and Puto 1982).

Several explanations and possible mechanisms have been offered to account for the attraction effect, such as attribute importance signals (Ariely & Wallsten 1995), changes in the range of attribute values (Simonson & Tversky 1992) or ease of justification (Simonson 1989). This phenomenon has been researched extensively and found to be very robust in various domains (consumer products, politicians, romantic dates, job candidates and medical treatments). However, most of this research employed options that were predominantly favorable.

Accordingly, in this work, we examine the extent and direction of attraction effect when consumers are choosing from predominantly negative options. We suggest that when faced with mainly unfavorable options, consumers get in a prevention mindset. This prevention focus in return leads consumers to avoid the prevention attribute and thus an attraction towards the option better on the prevention attribute, regardless of it having a decoy or not. When options are mainly favorable however, consumers deviate towards the option with a decoy.

To test this theory, in Study 1, we constructed options that were presented on two attributes: a promotion attribute (ergonomics) and a prevention attribute (battery life; Levav, Kivetz & Cho). Participants were asked to imagine purchasing a digital camera, described on two these attributes, both of which could have a value between -10 and +10. A was superior on ergonomics and option B was superior on battery life. The third option was either an A decoy (A') or a B decoy (B'). We also manipulated the attribute valance by keeping the absolute values of the attributes same, but adding a negative sign. The results replicated the attraction effect in the positive domain. When no decoy was present, 65% of the participants choose option B (better on prevention attribute). However, when A' was introduced to the set, only 27% of the participants choose option B. Conversely, when B' was added, the choice share of B increased to 78%. In the negative domain however, 40% of the participants preferred B when there was no decoy present. This share went up to 63% when A' and to 57% when B' was introduced to the set. In another words, no matter whether A or B was the asymmetrically dominating alternative, participants indicated a preference for option B, which was superior on battery life (the prevention attribute).

After demonstrating the effect in a controlled setting with absolute negative numbers, Study 2 attempted to replicate the findings in a more externally valid context (i.e., where the stimuli had *relative* valance difference). We used a vacation scenario, asking participants to choose a hotel that was presented on two attributes: beach safety (prevention attribute) and years since remodel (promotion attribute). In the positive (negative) domain, the safety of hotels ranged from 6 to 19 deaths in a million (180 -235/1,000,000) and the years to remodel were 2 to 7 years in positive and 9 to 15 years in the negative domain. The results replicated study 1. Specifically in the positive domain, the choice share increased for option A (superior on safety) when A' was introduced to the set (29% to 52%) and decreased when B' was present (29% to 23%). In the negative domain though, adding both A' (23% to 38%) and B' (23% to 49%) increased the share of option A, which dominated on the prevention attribute (beach safety).

To more directly test our theory; in Study 3 we directly manipulated consumers' mindset. Specifically, in addition to the above described conditions, we added another mindset factor, where we manipulated promotion mindset (In what way you think one camera was better than the other in providing the best features?) and prevention mindset (In what way you think one camera was better than the other in preventing problems). The stimuli were the same as the one used in Study 1, with

one minor difference. That is, the promotion attribute was changed to picture quality, in order to provide an attribute that was less complex. As predicted, we found that when participants were in the promotion mindset, they showed attraction effect when there was a A' or B' added to the set and in *both* negative and positive domains. That is share of B went down when A' was introduced (27% to 5% in positive and 24% to 10% in negative domains) and increased when B' was introduced (27% to 31% in positive and 24% to 37% in negative domains). More importantly however, when participants were in a prevention mindset, we observed an increase in the share of B (option better on prevention attribute), regardless of the decoy introduced and the valance of the domain. Specifically, share of B went up when A' or (26% to 45% in positive and 39% to 55% in negative domains) and B' (26% to 44% in positive and 39% to 63% in negative domains) was introduced.

In conclusion, we introduce attribute valance as a moderator of the attraction effect and show that one of the most robust context effects is eliminated (and even reversed) when identical attributes are presented in a negative domain. We further show this change is at least partially, driven by the changes in regulatory mindset when evaluating favorable or unfavorable options.

Priming and Context Effects: The Interplay between Non-consciously Activated Constructs and the Choice Context

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Extensive research on priming effects suggests that exposure to situational cues can affect consumers' behavior, either with or without their awareness. However, we still know relatively little about the interaction between the impact of the prime and the choice context. We propose that the direction of priming effects on choice may depend on contextual factors, such as the composition of the set of options under consideration. Examining this interaction is important because, in many daily situations, both subtle situational cues and the choice context are likely to influence consumers. In particular, this research investigates how priming people with the concept of frugality might influence their choice between a high-price/high-quality and a low-price/low-quality option. Most research on priming and choice would imply that activating constructs related to frugality should promote preference for the lower-price option (e.g., Chartrand et al. 2008). However, the present research suggests that the prime could promote either the low-price or the high-price option, depending on the choice context. That is, frugality priming may potentially increase the preference for a high-price option that appears to represent a favorable price-quality tradeoff due to context or framing effects. We examine the interaction between priming and the choice context in three studies and explore the mechanism underlying these effects.

The attractiveness of high-tier options can be enhanced by contextual factors such as background contrast, asymmetric dominance, or framing (Nowlis and Simonson 2000; Simonson and Tversky 1992). In such cases, features of the choice context can make the higher-tier option *appear* as an opportunity to obtain higher quality for a competitive, albeit higher, price. Activating frugality-related constructs can increase the preference for low price, but may also be associated with a preference for the most price-efficient option regardless of price per se. Further, to the extent that a higher-tier option might be seen as representing a favorable price-quality tradeoff, frugality priming can make people perceive this high-tier option in terms of the activated construct (Herr 1989; Yi 1990), which is likely to further enhance its attractiveness. Thus, priming the concept of frugality is likely to promote choice of *either* the low-price option, in a neutral context, *or* a high-price option that appears attractive due to context effects.

Three studies support these predictions. In study 1, participants primed with frugality were more likely than control participants to prefer the lower-price option when the choice context was neutral. However, when the same options were presented with a background contrast that improved the perceived price-quality tradeoff of the high-price option, participants primed with frugality were more likely to choose the high-price option.

In study 2, participants were asked to rate the degree to which they thought each of the options represented high value, regardless of which one they personally preferred. Consistent with our prediction, frugality-primed participants rated the low-price option as higher in value when the choice set included only the two focal options. However, this effect reversed when a third option that was asymmetrically-dominated by the high-price option was added to the choice set: in this case, participants primed with frugality rated the high-price option as the one with higher value.

In study 3, participants primed with frugality were more likely than control participants to choose the higher-price option when that option had a discount framing. In contrast, participants primed with frugality were more likely to select the low-price option when the same high-price option did not have a discount framing. Consistent with the notion that this effect reflects a shift in the perception of the high-price option, a mediated moderation analysis suggested that this prime X framing interaction was mediated by the extent to which the high-tier option was perceived as a bargain. In other words, participants primed with frugality were more likely to perceive the discounted high-price option as a bargain when primed with frugality than when exposed to neutral words, which in turn increased their preference for that option.

Taken together, these studies underscore the importance of examining the simultaneous influence of priming and context effects. They suggest (1) that the impact of primes can be moderated by contextual factors, and (2) that construct accessibility might be a significant moderator of context effects. These insights advance our ability to predict when, and how, primes and the choice context might affect consumer behavior in complex, daily situations.

The Effect of Mindsets on Common Decision Biases

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Past research has shown that individuals process information differently and form different representations of the same stimuli depending on whether it is construed at an abstract de-contextualized level or at a concrete contextualized level (Trope & Liberman 2003; Fujita et al., 2006). For example, as consumers take on a more abstract rather than concrete mindset they tend to give more weight to central and global features rather than peripheral and local features of events. In other instances individuals in abstract mindsets have been shown to categorize objects in fewer and broader categories (Liberman, Sagristano & Trope 2002), classify others using traits and stereotypes (Nussbaum et al. 2003), and perform better on creative tasks but worse on analytical problem solving (Forster et al. 2004).

Despite extant research on the impact of construal levels on information processing and judgment, no research to date has examined how different mindsets impact judgment biases arising from the context in which a decision is made (Huber, Payne & Puto 1982; Simonson 1989; Simonson & Tversky 1992). In the current research we bridge this gap and investigate the effect of abstract versus concrete mindsets on three commonly reported biases in consumer decision-making –1) a bias to choose the middle option in a choice-set (compromise effect; 2) a tendency to choose an asymmetrically dominating option (attraction effect) and 3) a tendency to be influenced not only by the tradeoffs presented in the choice-set under consideration but also by a contrast generated due to the background tradeoffs.

Construal Level Theory (CLT) proposes that in abstract mindsets individuals give more weight to central and global features of events, whereas in concrete mindsets individuals center their attention on comparative and detailed features (Trope & Liberman 2003). To the extent that a compromise effect results from a focus on the relational properties of alternatives and the accompanying choice difficulty of making compensatory comparisons (Dhar, Nowlis & Sherman 2000), we propose that in comparison to a concrete mindset, an abstract mindset will reduce the compromise effect by shifting attention to global aspects of the decision and reducing the number of trade-offs and the resulting difficulty. Similarly, we predict that an abstract mindset will decrease the background contrast effect. Since the background contrast effect is driven by the influences of relevant past alternatives, diverting attention away from detailed comparative attributes across choice sets should reduce the impact of the background set on the target set. The attraction effect, however, is largely perceptual. Since an abstract mindset draws attention to global characteristics, we predict that it will further highlight the perceptually salient asymmetric-dominant relationship and hence magnifies the attraction effect. Five experiments show support for our propositions. Study 1 demonstrates that an abstract versus a concrete mindset induced through a temporal distance manipulation (Liberman & Trope 1998) systematically impacts share of a compromise option in a subsequent choice task. Participants were asked in between-subjects conditions to either think of a goal they wanted to achieve in a week (concrete mindset) or in a year (abstract mindset). Next, they were asked to make a choice from a three-option choice-set featuring a compromise option in the middle. As predicted, we find that compared to a concrete mindset (which was similar to the control where participants did not indicate any goal prior to making the

choice) an abstract mindset leads to significantly decreased choice share of the middle option. Using a different manipulation of the construal level, Study 2 found that participants were more (less) likely to choose an asymmetrically dominating option from a choice set when they were in an abstract (concrete) mindset. Consistent with our theorizing, Study 3 shows that background contrast effects have less (more) impact on participants' judgments in an abstract (concrete) mindset.

To show support for a mechanism based on difference in local tradeoffs in abstract versus concrete mindsets, Study 4 examined participants reasons for their choice and found that participants in abstract mindsets (as compared to those in a concrete mindset) indeed made fewer direct trade-offs between attribute of the different options and were more likely to base their decision on generalize preferences. Finally, we examined participants' response latencies in abstract and concrete mindsets. The results indicate that participants in an abstract mindset not only showed decreased compromise effect they also took less time to decide. The findings are consistent with a notion that a compromise effect arises due to difficulty experienced in making hard trade-offs. We propose that this difficulty can be significantly reduced in an abstract mindset that shifts consumers focus from local trade-offs to generalized global preferences.

Product Evaluation and Comparison Processes

Chair: Himanshu Mishra, University of Utah

Effect of Attribute Change on Preference Modification

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Imagine that the local grocery store sells Kellogg's Special-K in two package sizes: 10 oz. for \$2.50 and 15 oz. for \$3.75. John buys Special-K, and since the unit price for each pack is the same, he is indifferent between either of the packs. He sometimes buys a bigger pack and sometimes a smaller pack depending upon factors like storage space at home, frequency of shopping, or liquidity constraints. Recently, he noticed that Kellogg's is offering bonus packs with the purchase of Special-K—a 10 oz. pack plus 4 oz. for \$2.50, and a 15 oz. pack plus 6 oz. for \$3.75. Which package would John prefer now? Based on his past preference, one might predict that he would be indifferent between both packages as unit price is still the same across both of them; his decision to buy one pack over the other would again be based on similar factors. Contrary to this prediction, we find that he would no longer be indifferent and would prefer the bigger package over the small package. We call this phenomenon the Detection of Change Effect (DCE), where people, who were indifferent between two options before the change, later prefer the option with a higher magnitude of change. To test DCE, study 1 utilized a two cell between-participant experimental design, where participants were presented with a choice between two breakfast cereals. In the control condition, participants were asked to choose between two packages of their preferred cereal brand (i.e., package A: 12 oz. for \$4; and package B: 18 oz. for \$6, unit price for both packages was the same i.e. 33 cents/oz). In the treatment condition, participants were first given information akin to the information given to the control condition participants. Subsequently, they were told that the company had introduced some changes by adding smaller bonus packages to the original ones (Package A: 12 oz. plus 4 oz. for \$4; and package B: 18 oz. plus 6 oz. for \$6). Then, the participants were asked to choose the option that they preferred to buy. Since the weights are increased proportionally equal to the base weight (33% of base weight in each option), the unit prices for both options were still equal (25 cents/oz.).

In the control condition, participants chose the smaller package A slightly more than the bigger package B (package A: 59.5%, package B: 40.5%, $\chi^2(1) = 1.524$, $p > .21$). However, for the treatment condition, participants' preference significantly shifted towards the bigger package B (package A: 35.7%, package B: 64.3%, $\chi^2(1) = 4.773$, $p < .03$). Why do people prefer the option with a higher absolute change? Past research has shown that perceptions of change are reference-dependent (Kahneman 2003). Evidence of reference dependency which in many cases creates preference modification has been well documented (Hsee 1996; Kahneman 2003; Tversky and Kahneman 1991). People, who perceive an attribute change, look for a reference to evaluate the change. Since recent expectations can be used as a reference point (Koszegi and Rabin 2006), people use the original options (i.e., the options before the change) to evaluate the changed options. We posit that using the original options as a reference enhances the salience of the magnitude of change and results in overvaluation of the option with a better absolute change.

However one could argue that the results of study 1 can also be explained through two alternate accounts- the value-of-free products and the Increasing Proportional Sensitivity (IPS) account. The value-of-free account claims that since people assign higher value to free products (Shampanier, Mazar, and Ariely 2007), participants chose the option with more of the free product (i.e., the bigger package with more free bonus quantity).

Increasing Proportional Sensitivity states that "increasing the absolute magnitude of all values of an attribute by a common multiplicative constant [regardless of detecting the change] increases the weight of the attribute [in decision making]" (Prelec and Lowenstein 1991). Therefore, the IPS based account claims that the proportional rising of the weights of the cereal packages increased the emphasis that participants put on this attribute (i.e., weight) in their decision, and chose the one with the highest weight.

The aim of study 2 was to provide more evidence for the main account and to assess the efficacy of the two alternate accounts. To address the value-of-free account, we eliminated any signs, picture, or word that can be considered as free. Moreover, to test the efficacy of the IPS account, the experiment had two treatment conditions in which the participants

were able to either detect or not detect the attribute change.

In the control condition participants were asked to indicate their preference toward buying small (10 oz. for \$2.50) and large (15 oz. for \$3.75) crackers packages based on a 7-point scale anchored on -3 (“definitely small package”), 3 (“definitely large package”), and 0 indicating an indifference between two packages. For the “change detection” condition, participants were first informed about the original packages similar to the control condition and then the packages with the increased quantities (i.e., package A: 14 oz. for \$2.50, and package B: 21 oz. for \$3.75), and they were asked about their preference between the two packages. In the “no change detection” condition, participants were just informed about the packages with the increased quantities without knowing about the original ones.

In the control condition, participants significantly ($t = 4.235, p < .001$) preferred the smaller crackers package. However, in the “change detection” condition, they significantly ($t = 3.30, p < .001$) shifted their preference toward the bigger crackers package (i.e., package B: 21 oz). This shows that participants preferred the bigger package even when the effect of free product was eliminated. On the other hand, in the “no change detection” condition, participants’ preference was not significantly ($t = 0.587, p > .55$) different from the control condition i.e. they were indifferent between the two package sizes. This rules out the IPS account and shows that detecting a change is necessary for the DCE.

Hsee, Christopher K. (1996), "The Evaluability Hypothesis: An Explanation for Preference Reversals between Joint and Separate Evaluations of Alternatives," *Organizational Behavior and Human Decision Processes*, 67 (3), 247-57.

Kahneman, Daniel (2003), "A Perspective on Judgment and Choice: Mapping Bounded Rationality," *The American Psychologist*, 58 (9), 697–720.

Koszegi, Botond and Matthew Rabin (2006), "A Model of Reference-Dependent Preferences," *Quarterly Journal of Economics*, 121 (4), 1133-65.

Prelec, Drazen and George Loewenstein (1991), "Decision Making Over Time and Under Uncertainty: A Common Approach," *Management Science*, 37 (7), 770-86.

Shampanier, Kristina, Nina Mazar, and Dan Ariely (2007), "Zero as a Special Price: The True Value of Free Products," *Marketing Science*, 26 (6), 742-57.

Tversky, Amos and Daniel Kahneman (1991), "Loss Aversion in Riskless Choice: A Reference-Dependent Model," *The Quarterly Journal of Economics*, 106 (4), 1039-61.

The Effects of Expertise on the Processing of Alignable versus Nonalignable Attributes

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What makes a product different than other competing products? To come up with a brand positioning, marketers need to identify a point of difference that makes its product different from other competing brands. For example, Sharp argues that its LCD panels have superior response times compared to other brands, making its TVs better equipped to show fast-action programs such as sporting events. On the other hand, Sony’s Playstation 3 emphasizes that it is the only new generation console that is capable of playing Blu-ray discs and differentiate itself from Microsoft’s XBOX 360 which cannot play high definition video format without an add-on HD DVD drive. All of these positioning strategies strive to win over consumers by communicating product information that differentiates their brand from the competitors. They differ, however, in the type of differentiating feature they promote. The first positioning strategy focuses on attribute values that are different along the same dimension. We refer to this strategy as emphasizing alignable differences. On the other hand, the latter strategy emphasizes the feature that is unique to a particular brand. We refer to this type of strategy as differentiating on nonalignable differences.

An important question to marketers is which of these two strategies is more effective in differentiating its brand compared to other competing options. Prevailing findings in the literature suggest that alignable differences influence consumer decisions more than non-alignable differences because alignable differences are easier to compare than nonalignable differences (Gentner & Markman, 1993; Zhang & Markman, 1998).

The current study investigates a condition under which nonalignable differences are used as a basis of product evaluation that differentiates alternative options. Specifically, consumer expertise is identified as a moderating variable that influences processing of alignable versus nonalignable options.

The relative importance of alignable differences in product comparison and choice can be explained by the diagnosticities of types of attributes as well as ease of processing of alignable features relative to nonalignable features (Feldman & Lynch, 1988; Zhang & Markman, 1998). Specifically, alignable differences can be directly compared across different options and allow unambiguous comparisons (Slovic & MacPhillamy, 1974). The ease of comparison between two alignable features makes them diagnostic in product evaluation. For example, even a novice consumer who has little knowledge about digital cameras can use number of pixels as an indicator of picture quality in choosing camera. On the other hand, consumers will have difficulties in comparing two brands on nonalignable differences. One of the reasons is that it is difficult for consumers to determine how good nonalignable attributes are without making direct comparisons with other brands. When judging the expected utility of a nonalignable attribute value, consumers need to have sufficient knowledge to interpret the expected benefit of attribute level, and make a comparison between it and the relevant standard from memory. Given the difficulty of interpreting expected benefit of the nonalignable attribute, novice consumers would resort to cognitively less demanding task of comparing alignable attributes.

The current study focuses on the effects of expertise on processing of alignable versus nonalignable features. It has been found that evaluating nonalignable attributes requires either substantial amount of cognitive resources or the ability to abstractly represent product attributes. Experts possess adequate cognitive resources and the ability to interpret nonalignable attributes so that they can evaluate different alternatives based on their understanding of the nonalignable attributes. Experts' familiarity with the product category reduces cognitive effort and frees up cognitive resources (Alba & Hutchinson, 1987).

This analysis suggests that despite the majority of studies that found dominance of alignable differences over nonalignable differences in product judgment, consumer expertise may moderate this effect. Specifically, we hypothesize that more knowledgeable consumers are better able to infer the benefits of nonalignable features, and that this ability would make them to pay more attention to nonalignable features and use them as a basis for their judgments.

Three studies were conducted to test this hypothesis. Study 1 investigated relative attention that participants place on alignable versus nonalignable differences. It was expected that experts would pay more attention to nonalignable differences than novices because their abilities to process and compare nonalignable differences is greater than those of novices. The study had a one factor (expertise: high vs. low) between-subject design. MP3 player category was chosen as a focal product category. Expertise was measured by asking participants' familiarity with MP3 players on a seven-point scale. The results showed that there was a main effect of expertise. The analysis revealed that the percentage of experts who chose alignable difference (8.7%) was much smaller than experts who chose nonalignable differences (91.3%) as the most distinguishing feature. On the other hand, 37.5% of novices chose alignable difference and 62.5% of them chose nonalignable difference as the most distinguishing feature ($\chi^2(45)=5.44, p < .02$).

Study 2 investigated how experts and novices search for alignable versus nonalignable product information. The study had a 2 (alignable vs. nonalignable) \times 2 (experts vs. novices) mixed design. One hundred twenty seven undergraduate participants were asked to evaluate two brands of tennis racquet after reviewing product information on the computer. The results showed a main effect of alignability, such that participants reviewed more alignable features than nonalignable features ($M = 5.01$ vs. 3.88 ; $F(1, 125) = 62.66, p < .001$). Subsequent planned contrasts showed that novices reviewed more alignable features than experts ($M = 5.16$ vs. 4.86 ; $t(125) = 2.05, p < .05$), whereas experts reviewed more nonalignable features than novices ($M = 4.03$ vs. 3.73 ; $t(125) = 1.96, p < .05$). The results of study 2 showed that experts focused more on nonalignable features than alignable features. On the other hand, novices paid more attention to alignable features than nonalignable features.

Study 3 used brand evaluations as a dependent measure to test the effects of expertise on processing of alignable versus nonalignable features. A 2 (experts vs. novices) \times 2 (superior alignable vs. superior nonalignable) design was used. Similar to study 1, MP3 player category was used. The results indicated that the interaction between these factors was significant. Follow up contrasts revealed that experts evaluated the target brand more favorably in superior nonalignable condition ($M=5.81$) than those in superior alignable condition ($M=4.98, F(1, 96)=10.80, p < .001$). The result is

consistent with our expectation that experts focus on nonalignable attributes and are able to infer benefits from these attributes. On the other hand, novices evaluated the target brand less favorably in superior nonalignable condition ($M=3.81$) than those in superior alignable condition ($M=5.35$, $F(1, 96)=5.75$, $p < .05$), replicating previous studies that showed consumers' initial focus on alignable features (Zhang & Markman, 1998).

Alba, J. W., & Hutchinson, J.W. (1987). Dimensions of consumer expertise. *Journal of Consumer Research*, 13, 411-454.

Feldman, J. M., & Lynch Jr., J. G. (1988). Self-generated validity and other effects of measurement on belief, attitudes, intention, and behavior. *Journal of Applied Psychology*, 73, 421-435.

Gentner, D., & Markman, A. B. (1994). Structural alignment in comparison: No difference without similarity. *Psychological Science*, 5, 152-158.

Slovic, P., & MacPhillamy, D. (1974). Dimensional commensurability and cue utilization in comparative judgment. *Organizational Behavior and Human Performance*, 11, 172-194.

Zhang, S., & Markman, A. B. (1998). Overcoming the early entrant advantage: The role of alignable and nonalignable differences. *Journal of Marketing Research*, 35, 413-426.

Persuasion Under the Radar: The Effects of Question Wording on Product Evaluation

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Consumers' preferences are often constructed and largely determined by the task characteristics, the choice context, and the description of options (e.g. Simonson, 2008). Some research suggests that if the task or context is perceived as being manipulated by a marketer and having persuasive intent, consumers are likely to protect themselves from the marketing actions (Friestad and Wright, 1984). The present research reveals that asking evaluation questions on scales that are associated with high quality (e.g. velvety) vs. regular quality products (e.g. smooth) can influence preferences for the product in a nonconscious manner. Specifically, consumers who rated a product on dimensions described using fancy words (e.g., How velvety would you say the texture of the wine is?) make more positive evaluations than those who rated the same product on dimensions described using typical words (e.g., How smooth would you say the texture of the wine is?). We posit that the effects occur because answering the rating questions evokes a mental representation of the product without any suspicion. By answering the rating questions people engage in positive hypothesis testing (e.g. Klayman and Ha, 1987) and test the possibility that the product has the provided set of attributes. This increases the accessibility of the fancy/non-fancy attributes of the product and this accessible knowledge is used in overall evaluations of the product (Strack and Mussweiler, 1997). We demonstrate these language effects across a series of studies.

In Study 1, participants were shown pictures of chocolates and asked to rate the product on five dimensions described using either fancy or non-fancy words (e.g. how velvety/smooth would the texture of the chocolates be?). Participants who rate the chocolates on fancy attributes indicate that they would like the chocolate more and that they are more likely to purchase the chocolates. In study 2, we find that the effects persist even after direct experience with a product. Participants in this study were members of a Wine Club and were given a wine sample. They were randomly assigned to evaluate it on either the fancy or the non-fancy rating scales. Participants who evaluated the wine on fancy attributes (e.g. velvety, harmonious, lingering, etc) liked the wine more and were more likely to purchase the wine compared to those who rated it on non-fancy attributes (e.g. smooth, balanced, long-lasting, etc).

Study 3 and Study 4 replicate and extend these findings, identifying boundary conditions for the language effects. Study 3 shows that the language effect occurs only when the target product is ambiguous. This study manipulates ambiguity by presenting either agreeing or disagreeing expert opinions (Hoch and Ha, 1986). This information about the wine was provided to participants before a wine sample was given to them. In the ambiguous condition, participants read a set of scores varying widely across experts, while participants in the unambiguous condition saw scores that were quite consistent across experts. The results show that only when the product is ambiguous, do we observe any effect of the

language used in rating scales. When participants have information that is diagnostic of the product, the scales (fancy vs. non-fancy) have no effect on overall evaluation.

Study 4 examines another moderator for the language effect: fit between fancy scales and the product. Using fancy words that do not seem to fit the target product category may not result in a positive evaluation of the product. In this case, it is possible that the fancy rating scales can result in lower evaluations than a rating task involving less fancy words. To examine this moderating role of fit, we choose wine as a fancy product and Soju, a Korean lowbrow alcoholic beverage, as a non-fancy product (Study 4 was conducted in Korea). Participants were given a sample of either wine or Soju and asked to rate the product on either fancy or non-fancy scales. Replicating our previous results, participants are willing to pay more for wine when they answer the questions asking about fancy attributes. They even consumed more wine in the fancy scale condition. However, the effect of language on evaluation reversed for Soju. Participants were willing to pay less for Soju when they rated it on scales anchored by fancy words compared to those rating it on non-fancy scales. They also consumed less Soju in the fancy scale condition.

In summary, we posit that different language embedded in a ratings scale can influence preference for a product. These effects arise without any explicit claim about any aspect of the product. This is precisely why consumers keep their defenses down and do not consider the rating task a persuasion attempt (Williams et al, 2004). As result they may be more persuaded than if an explicit claim had been made.

Friestad, M., & Wright, P. (1994). The persuasion knowledge model: How people cope with persuasion attempts, *Journal of Consumer Research*, 21, 1-31.

Hoch, S. J., & Ha, Y. W. (1986), Consumer learning: Advertising and the ambiguity of product experience, *Journal of Consumer Research*, 13, 221–33.

Klayman, j., & Ha, Y. W. (1987). Confirmation, disconfirmation, and information in hypothesis testing. *Psychological Review*, 94, 211-228.

Simonson, I. (2008). Will I like a “medium” pillow? Another look at constructed and inherent preferences, *Journal of Consumer Psychology*, 18, 155-169.

Strack, F., & Mussweiler, T. (1997). Explaining the enigmatic anchoring effect: Mechanisms of selective accessibility. *Journal of Personality and Social Psychology*, 73, 437-446.

Williams, P., Fitzsimons, G. J., & Block, L. G. (2004). When consumers do not recognize “benign” intention questions as persuasion attempts. *Journal of Consumer Research*, 31, 540–550.

Consumer Choice Strategies and Brand Strategies

Chair: Ajay Kalra, Rice University

How Purchase Behavior Differs for Vice and Virtue Products

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The dichotomy between relatively vice and virtue products has been receiving increasing attention. Virtue and vice products are defined relatively. Virtue products (e.g., apple) trade off small immediate costs with large delayed rewards, while vice products (e.g., chocolates) trade off short immediate rewards with long term costs (Read et al., 1999). The virtue and vice literature has largely examined how consumer choice and consumption differs for these two product types. A characteristic of vice products is the immediacy bias. The immediacy bias is a preference for vice products over virtue in the present, and has been shown for both choices and consumption. Read et al. (1999) find that people prefer vice movies when the choice options are made for immediate consumption (one day), rather than for consumption in the future (one week). Similarly, Milkman et al. (2008) find that people procrastinate viewing virtue films, because they prefer consuming vice films in the present. Consumers are also more likely to select vices when there is a large menu selection (Sela, Berger & Liu, forthcoming). Additionally, people are more likely to regret choosing a relatively virtuous product (Kivetz & Keinan, 2000) and attempt to control their own consumption by choosing to purchase vices in smaller quantities (Wertenbroch, 1998). Choosing between virtue and vice products can also impact subsequent consumer choices. For example, after choosing a relatively virtuous product, people are more likely to select a vice (Khan et al., 2007). Similarly, when a person verbalizes their intention to engage in a virtuous behavior (Fitzsimons et al., 2007), they have a greater tendency to engage in behavior with vice products, compared to people who do not verbalize their virtuous intentions.

In contrast to earlier literature, our focus is on examining the acquisition process in vice and virtue products. We propose that as compared to virtue products, the visceral drive in the purchase of vice products is relatively stronger because they are more tempting. Consequently, the purchase process is different in terms of information gathering, product valuations, relative attention to attribute information and weighting of attributes.

Although studied in the psychology literature, visceral influences have only recently received attention in marketing (Wadhwa, Shiv and Nowlis, 2008). Visceral influences are drive states such as hunger, thirst, sex drive, fatigue, pain, cold, or drug craving. Loewenstein's (1996) seminal paper proposes that visceral influences are characterized by two major effects: a hedonic influence and narrowing of attention. A hedonic influence is a desire for immediate resolution of the drive state. This leads to a preference for the item that resolves the drive state in the short term and causes decision makers to strongly discount the future. Attention narrowing is conceptualized to lead to a disregard for the needs of others and a focus on self, shortening people's decision making time horizon, with a focus on the present, and increasing the valuation of items that resolve the drive state while simultaneously leading to a temporary devaluation for any product that does not resolve the drive state. We argue that attention narrowing manifests in the consumer decision process also by lowering attention paid to purchase relevant information that is subordinate to the drive state, lowering the weight of attributes that deter the resolution of the drive state and willingness to pay higher acquisition costs to acquire the product faster.

Using an experimental approach, we begin by establishing that visceral factors result in attention narrowing. In the first experiment, we find that as compared to satiated subjects who evaluate a product description, hungrier subjects have lower recall for product attribute information. In the second experiment, we extend this finding to the consumer purchase domain by confirming that that attention narrowing occurs in the evaluation of relative vice products. Subjects were asked to evaluate a product description that contained identical attribute information for a vice product (ice cream maker) and a virtuous product (bread maker). The recall of price information was significantly lower for the vice product. We find that the recall of information is mediated by higher temptation for the vice product. In a third experiment, we demonstrate the hedonic impact in the purchase of vice products. Subjects were asked to select one movie from a choice set of vice movies and also one movie from a set of virtuous movies. The percentage of subjects who viewed the vice product information

first was significantly higher than subjects who viewed the virtuous product information.

We also examine data from completed auctions on ebay for the purchase of relatively vice and virtue products in two categories: movie DVD (Mission Impossible 3/March of the Penguins) and books (Cross/Freakonomics). Consistent with the attention narrowing account and the hedonic impact, consumers pay a higher shipping price (as a percentage of total price) for the relatively vice products. As expected by visceral impact on attention narrowing, we find that the percentage of purchases from sellers with perfect reputations is lower for vice products than for virtue products. We also find evidence for a hedonic impact as there is significantly more sniping (% of bidding in the last minute) in the vice auctions than in the virtuous auctions.

The results support the theory that there is a strong hedonic impact even in the acquisition of vice products in terms of information acquisition, sniping in auctions and willingness to pay higher shipping prices. More important, we also find evidence of attention narrowing in the purchase of relatively vice like products manifested in higher valuations of vice products in the immediate future, lower recall of price information and lower weight placed on seller reputation. Overall, the results of the experiments and auction data confirm that the process of acquiring a vice product is a relatively intense, visceral experience with important marketing and consumer welfare implications.

Find and Keep or Keep Looking and Weep: Satisficing and Maximizing Strategies in Consumer Choice

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An important decision when evaluating options in a choice set is how many alternatives to examine prior to choice. Most decision strategies share a common requirement that all available options must be considered before a decision is reached—they may be labeled “maximizing” strategies because they aim to maximize one’s expected utility from the chosen option by identifying the best option in the set based on some criteria. In contrast, satisficing is a decision strategy that allows consumers to select the first acceptable alternative they evaluate and to leave any remaining options unexamined (Simon 1955). Despite the fact that consumers frequently satisfice, little research has examined the antecedents and consequences of selecting this decision strategy.

When given a choice, consumers typically prefer to examine all available options prior to making a decision. However, research suggests that after using a maximizing strategy, consumers tend to be less satisfied with their decisions than those who satisfice. This presents an interesting paradox—consumers tend to prefer maximizing but experience more positive outcomes after satisficing. Although this behavioral pattern is common, research has yet to discover its underlying causal mechanism.

We attribute this paradox to a shift in decision focus; in particular, we propose a two-stage model in which consumers may focus their attention on different stages of the decision process: strategy selection or option selection. During the strategy selection stage, consumers determine whether to postpone choice until all available options have been examined. Subsequently, during the option selection stage, consumers use their chosen strategy to select one of the available options. Because strategies are typically selected based on their expected ability to generate the optimal outcome, we predict that consumers focused on the strategy selection stage will prefer maximizing over satisficing because examining all available options increases the likelihood of finding the option that best matches one’s preferences. However, during the option selection stage, the effort of evaluating all available options and the choice conflict that could arise from multiple acceptable options is likely to become more salient. Therefore, we argue that the attractiveness of a satisficing strategy will increase when consumers focus on option selection.

Three experiments were designed to test the proposition that shifting decision focus can influence strategy preference and decision confidence. The objective of the first study was to examine how the impact of strategy selection on decision confidence changes as a function of decision focus. Online participants read a scenario about two consumers who use different decision strategies while shopping. After reading the scenario, participants were asked to assess the relative decision confidence of the two consumers. Because strategy selection precedes option selection, temporal perspective was used to manipulate decision focus. Prior to a decision, individuals are likely to consider which strategy will allow them to choose the best option, but after making a decision, the costs of evaluating multiple options and choosing among them are

more salient. Therefore, framing the shopping scenario as a future event should cause participants to focus on strategy selection, but framing the scenario as a past event should make option selection salient. It was expected that when reading about a future scenario, participants would attribute greater decision confidence to a shopper who selects a maximizing rather than satisficing strategy, but that the opposite effect would obtain when the scenario was set in the past. Consistent with this hypothesizing, the results showed that when the shopping scenario was framed as a future event, participants expected the consumer who intended to evaluate all available options before making a choice to be more confident than the consumer who intended to satisfice. However, when the same shopping scenario was framed as a past event, greater decision confidence was attributed to the consumer who chose the first acceptable alternative.

To provide additional support for the notion that decision focus is driving the results, the second study examines the role of decision focus in strategy selection. Participants were told that they had been appointed to order the entree for a group lunch. The restaurant from which they were ordering provided two menus—a short menu of popular items, or a long menu of all available items. Decision focus was manipulated by instructing participants that they would need to justify their choice among menus (strategy selection) or their choice among entrées (option selection) to the group. Following these instructions, participants chose one of the menus to review and selected an entrée from that menu. After making their selections, participants reported decision confidence. Whereas participants focused on strategy selection preferred maximizing (i.e., were more likely to choose the long menu), participants focused on option selection preferred satisficing (i.e., were more likely to choose the short menu). In addition, participants who used a satisficing strategy (i.e., ordered from the short menu) reported a higher level of decision confidence than those who used a maximizing strategy (i.e., ordered from the long menu).

The third experiment examines the impact of decision focus on regret following the use of an assigned decision strategy. It was anticipated that participants focused on strategy selection would experience greater regret if assigned to a satisficing strategy, but that participants focused on option selection would experience greater regret if assigned to a maximizing condition. Participants were randomly assigned to a decision strategy and permitted to choose a prize that they would receive after the study. Participants in the maximizing condition were instructed that they must look at all available prizes before choosing one, whereas participants in the satisficing condition were told that after viewing each prize, they could either choose it or keep looking. After selecting a prize, participants were asked the extent to which they regretted not having examined more/fewer items and the extent to which they regretted not having chosen a different option instead. In addition, participants reported how confident they were in their decision. Consistent with the hypothesizing, participants reported greater regret after satisficing when focused on strategy selection, but the reverse was true for participants focused on option selection.

In summary, this research attempts to explain why consumers are often reluctant to satisfice but tend to experience more positive outcomes after doing so. A two-stage decision process model is proposed wherein consumers direct attention to either strategy selection or option selection. Three experiments were designed to provide converging evidence that decision focus moderates the impact of strategy selection on decision confidence.

Simon, Herbert A. (1955), "A behavioral model of rational choice," *Quarterly Journal of Economics*. 69 1955, 99-118. *Print.*

Does Comparative Advertising Benefit the Comparison Brand?

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“Obama lacks experience” touts a recent campaign ad for John McCain. Voters exposed to this ad may believe the arguments and be persuaded that Obama is not ready for the Presidency. Extant research would predict that comparative advertising accrues numerous benefits to the advertiser (“target brand”), vis-à-vis the named competitor (“comparison brand”). Consider however the likely scenario wherein the comparison brand responds to the attack. A recent Obama ad showcases his experience in the Senate and also builds a case that excessive time in Washington politics may make one an insider, unwilling to embrace change. How will voters respond to this ad by the comparison brand?

Current research focuses primarily on effects for the target brand and does not fully consider the ramifications for the

comparison brand. Previous research (Grewal, Kavanoor, Fern, Costley, and Barnes, 1997) shows that comparative ads generate more attention and greater message and brand awareness than noncomparative ads. Further, negative comparative ads may lead to greater counterargumentation (Jain, 1993). From a memory angle, one could argue that comparative advertising blocks attention to and memory for the comparison brand (e.g., Burke and Srull, 1988). However, recent research suggests that competitive advertising may aid the learning of new attribute information and actually be beneficial (Jewell and Unnava, 2003). A retaliation by the comparison brand further complicates the situation. Taking these factors into account, the nature of the response to the comparison brand is not clear.

Hypotheses: The goal of this research is to examine the effects of comparative advertising on the comparison brand. We vary whether the target brand engages in comparative advertising, and also vary whether the comparison brand's ad is seen by the consumer.

Recognition of Comparison Brand: The literature on comparative advertising suggests that when a brand is the object of comparison, the awareness of the brand may be enhanced. This is because it is getting exposure in the target brand's comparative ad. When the comparison brand also advertises, the added exposure should enhance brand memory. Hence, this appears to be a situation where the comparison brand could either advertise for itself or let the comparative ad by the target raise the awareness level. Whether or not these two factors will lead to an additive effect is an empirical question.

Claims Recognition for Comparison Brand: When the target brand engages in comparative advertising, one line of research suggests that such ads may benefit the comparison brand (Grewal et al., 1997). In contrast, the memory interference literature (Burke and Srull, 1988) would suggest that the burden placed on the memory system would lead to lower memory for the comparison brand's claims. These two countervailing forces would not lead to an advantage for either type of ad.

Consider now the case when the comparison brand's ad is also seen by the consumer. In this scenario, the comparison brand's claims are provided another exposure to the consumer. Given that this exposure is in a noncomparative ad, there is also less clutter to sift through. Hence, it is likely to be advantageous for the comparison brand to advertise to emphasize its claims.

Attitude toward Comparison brand: After exposure to a comparative ad by the target brand, one would expect attitudes toward the comparison brand to be affected in a negative fashion. However, it is also plausible that a comparative ad by the target leads to feelings of sympathy for the comparison brand (Jain, 1993), thus diminishing the potential negative response. When the comparison brand's ad is seen later, it enjoys the advantage of advertising its brand fairly. Hence, attitude toward the comparison brand is expected to be higher after exposure to the comparative ad.

Method: One hundred and four undergraduate business students from a large, public Midwestern university participated in the study for course credit. The study used a between-subjects 2 x 2 factorial design. The two factors were target brand ad (comparative versus non-comparative) and comparison brand ad (no ad versus ad featuring comparison brand). For the first factor, two advertisements were created featuring a target brand that either engaged in explicit comparisons with a comparison brand (comparative ad) or exclusively highlighted its own strengths without mentioning the comparison brand. For the second factor, participants either saw an ad for the comparison brand or a filler ad unrelated to the product category.

Four conditions were created by crossing these two factors. Participants in each condition saw a series of eight ads in order to minimize demand effects. All four conditions showed an advertisement for the target brand in the third position; two conditions featured the target brand advertisement in a comparative format while the remaining two conditions did not. The sixth position featured either an ad for the comparison brand or a filler ad. To ensure that the comparison ad did not attract undue attention, the series also included another comparative advertisement.

The product category chosen for the study was the student body presidential election, with two candidates representing the two brands. The candidates' names were plausible but fictitious (Blake West, Conner Bailey). Likewise claims were created by selecting issues that were relevant to students (e.g., dedicate time to organization, has past experience in leadership position). The comparative ad of the target brand explicitly identified the competing brand and compared its attributes to those of the target brand.

Participants were randomly assigned to one of the four conditions. They were informed that they would see some ads and

be asked to answer some questions. Each of the eight ads was projected for 10 seconds. Subsequently, an unrelated filler task was administered to clear short-term memory. Finally, measures of recognition and brand attitude were administered. The data was subjected to an ANOVA analysis, with significant interactions leading to follow-up mean comparisons.

Results Recognition of Comparison Brand: Analysis showed a significant main effect for the target comparative ad ($F(1,99) = 13.92, p < .001$), a significant main effect for the comparison brand ad ($F(1,99) = 60.98, p < .001$), and no significant interaction. Recognition of the comparison brand is higher when the target is comparative (1.65) versus not comparative (1.28). Brand recognition is also higher when the comparison brand ad is seen (1.79) versus not seen (1.16).

Claims Recognition for Comparison Brand: Analysis revealed a marginally significant main effect for the target comparative ad ($F(1,99) = 3.73, p < .1$), a significant main effect for the comparison brand ad ($F(1,99) = 29.7, p < .01$), and a significant interaction ($F(1,99) = 4.99, p < .05$). Claims recognition for the comparison brand is higher when the target ad is comparative (1.37) versus not comparative (1.23). Claims recognition is also higher when the comparison brand ad is seen (1.45) versus not seen (1.16). When the comparison brand ad is not seen, claims recognition for the comparison brand is better when the target ad is comparative (1.29) versus not comparative (1.09, $p < .01$). When the comparison brand ad is seen, claims recognition for the comparison brand does not differ when the target ad is comparative (1.45) versus not comparative (1.44, $p > .1$).

Attitude toward Comparison Brand: For brand attitude toward the comparison, analysis showed no significant main effect for the target comparative ad, a significant main effect for the comparison brand ad ($F(1,89) = 17.39, p < .001$), and no significant interaction. Attitude toward the comparison brand was lower when the comparison brand ad is seen (3.36) versus not seen (4.28).

Conclusion: The goal of this experiment was to examine the memory and attitude effects when the comparison brand followed a comparative advertisement in an ad sequence. The results of this experiment showed that across both memory and attitude responses, it pays off for the comparison brand to advertise later in the segment. These results reinforce previous research by Jewell and Unnava (2003) that competitive interference can aid recall, due to the reinforcement provided by multiple mentions of the product.

These results have implications for the effective use of comparative advertising. For a non-market leader, running a comparative advertisement could lead to better brand recognition. Mentioning the market leader presents the risk that the market leader will feature its own advertisement in the same sequence. This would only benefit the market leader by doubling its exposure to the audience, while the non-market leader receives no benefit.

The Influence of Attitude Strength on Consumer Perceptions and Decision Making

Chair: Detra Montoya, University of Washington, Seattle

Attitude-Consistent Behavior among High Ambivalence Individuals

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Researchers studying attitudes as predictors of behavior have turned their attention in recent years to the various dimensions of attitudes that moderate the attitude-behavior relationship. Several such dimensions, such as attitude persistence, resistance, confidence, have generally been referred to as dimensions that determine the strength of one's attitude (see Petty & Krosnick 1995 for a review). One of the dimensions of attitude strength is attitudinal ambivalence (e.g., Priester & Petty 1996). Ambivalence refers to a situation in which an individual experiences both positive and negative reactions to an object. For example, an individual may express positive attitude toward French fries, and like them for their taste, but may have reservations about their high calories and high sodium content. The behavior of such individuals is hard to predict because it may be guided by whichever reaction is most salient at the decision-making point. If the person is focusing on a tasty snack, he may choose French fries, but may choose something different if the focus is on healthier options. Thus, attitudinal ambivalence undermines attitude-behavior consistency (Sparks, Hedderley & Shepherd, 1992; Cavazza, N. & Butera, F., 2008; Conner, Sparks, Povey, James, Shepherd & Armitage, 2002). Interestingly, much of the past research has focused on the consequences of attitudinal ambivalence in terms of reduced attitude-behavior consistency, and the antecedents of ambivalence. There has not been much attention devoted to studying *conditions under which attitudes may be predictive of behavior even when they are held with high ambivalence*. The objective of this research is to study the role of one's mood in determining attitude-behavior consistency when the attitudes are held with high or low ambivalence.

H1: For highly ambivalent attitudes, being in a good mood will affect choice to be more consistent with the positive component of the attitude while being in a neutral mood will make the choice to be less consistent with the positive component of the attitude.

H2: For attitudes held with low ambivalence, being in a good mood will affect choice no differently from being in a neutral mood, in terms of consistency between the positive component and choice.

To test our propositions above, a 2 (low vs. high ambivalence) X 2 (happy vs. neutral mood) design was employed. Participants for the study were chosen based on their high vs. low levels of ambivalence toward a target product. They were then put in either a happy or neutral mood through procedures described in the next section. Seventy four undergraduate students participated in the research and were awarded course credit for their participation. Individuals with ambivalent attitudes have been shown to have low attitude-behavior consistency. We argue that conditions under which the dominant component of an attitude is made salient will increase attitude-behavior consistency even for high ambivalence attitudes. We use positive mood to enhance accessibility of positive reactions to French fries, thus affecting its choice probability. People with highly ambivalent attitudes toward French fries ended up choosing them over another healthier alternative when they were put in a positive mood. Implications for research on ambivalence are discussed. With random assignment, 34 participants were assigned in the happy mood condition and 40 were in the neutral condition. The mood manipulation was confirmed to be very successful ($M_{happy} = 3.85$; $M_{neutral} = 1.89$; $t(72) = 4.025$, $p = 0.000$).

Our hypotheses call for an interaction between mood and ambivalence such that choice probabilities of French fries are unaffected by mood in the low ambivalence conditions, but affected positively in the positive mood condition. Since the dependent measure is a binary option, we used binary logistic regression to conduct the data analysis. For the whole sample, 75.7 % of the participants (56 out of 74) chose French fries with the rest of the sample choosing Parfait. Overall, the attitude of participants toward French fries was correlated with their choice ($\beta = 1.053$, $p = 0.058$). The fact that more than 50% of the participants choosing French fries is not surprising but it was predicted because all participants chosen for this study had indicated that they had an extremely positive attitude toward French fries (over 8.5/ 9-point attitude rating). For those individuals whose ambivalence levels are low, we predicted behavior that is consistent with their attitude

regardless of which mood state they were in, with mood having little effect on their choice behavior. 77.8% of the students in the low ambivalence neutral mood condition choosing French fries vs. 64.7% of those in the low ambivalence happy mood condition (see Figure 1). The difference between the happy and neutral mood conditions was not significant ($p > 0.5$). Thus, when ambivalence was low, individuals choice appeared to be unaffected by the mood they were in. In contrast, when the level of ambivalence was high, our mood manipulation had a significant impact on choice behavior. 94% of the participants who were in a happy mood chose French fries whereas only 68% of those in a neutral mood chose French fries. This difference was significant ($p < 0.05$).

We correlated attitudes and behaviors for individuals in high and low ambivalence conditions. As expected, the correlation between attitude and behavior was high for low ambivalence individuals ($\beta = 1.6$, $p < 0.05$) whereas it was nonsignificant for high ambivalence individuals ($\beta = 0.383$, $p > 0.5$). Thus, attitude-behavior consistency is affected by ambivalence in our study, which is consistent with prior research findings (e.g., Conner et al, 2002).

We argue that the dominant component of an ambivalent attitude can be made selectively salient which will make attitude consistent behavior more likely. This was achieved through the manipulation of mood for a product that primarily evoked positive responses, but also had negative responses associated with it (i.e., French fries). When participants in our study were put in a positive mood, they were more likely to choose French fries over Parfait as compared to those in a neutral mood. This effect, however, was found only for those who held ambivalent attitudes. For those whose attitudes were less ambivalent, mood did not have any effect on their choice behavior.

Cavazza, N. & Butera, F. (2008). Bending without breaking: Examining the role of attitudinal ambivalence in resisting persuasive communication. *European Journal of Social Psychology*, 38, 1-15.

Conner, M., Sparks, P., Povey, R., James, R., Shepherd, R. & Armitage, C. J. (2002). Moderator effects of attitudinal ambivalence on attitude-behaviour relationships. *European Journal of Social Psychology*, 32, 705-718.

Kaplan, K. J. (1972). On the ambivalence-difference problem in attitude theory and measurement: A suggested modification of the semantic differential technique. *Psychological Bulletin*, 77, 361-372.

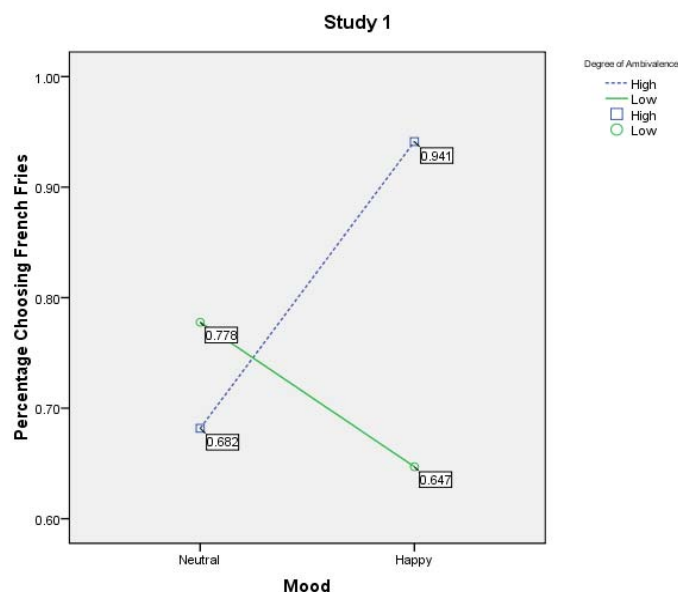
Petty, R. E., & Krosnick, J. A. (1995). Attitude strength: An overview. In R. E. Petty & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 1-24). Mahwah, NJ: Erlbaum.

Priester, J. M. & Petty, R. E. (1996). The gradual threshold model of ambivalence: Relating the positive and negative bases of attitudes to subjective ambivalence. *Journal of Personality and Social Psychology*, 71, 431-449.

Priester, J.R., & Petty, R. E. (2001). Extending the bases of subjective attitudinal ambivalence: Interpersonal and intrapersonal antecedents of evaluative tension. *Journal of Personality and Social Psychology*, 80, 19-34.

Priester, J. R., Petty, R. E., & Park, K. (2007). Whence univalent ambivalence: From the anticipation of conflicting reactions. *Journal of Consumer Research*, 34, 11-21.

Sparks, P., Hedderley, D., & Shepherd, R. (1992). An investigation into the relationship between perceived control, attitude variability and the consumption of two common foods. *European Journal of Social Psychology*, 22, 55-71.



I Like Thee! Let Me Count The Ways... Oh, I Like Thee Even More! On the Interplay between Prior Attitudes and Metacognitions

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By now it is well-established that people can construe attitudes and preferences on the spot by using a wide arsenal of simplifying strategies and heuristics (Loken, 2006). Moreover, metacognitive experiences such as the ease or the difficulty in accessing relevant information or in comparing different choice options (Schwarz, 2004 and discussion) have been shown to play a significant role in influencing both judgments and preferences (e.g. Novemsky et al., 2007). A prominent explanation of these effects is that people may have no choice but to construe their responses on the spot when they lack prior attitudes or preferences to rely on for making judgments and choices. This explanation begs the question whether the influence of metacognitive experiences still persists when respondents have strong prior attitudes or well-defined preferences.

In Studies 1 and 2, we explore whether prior attitude strength moderates the ease-of-retrieval effect. After we measured prior attitudinal strength of a large pool of participants, we invited participants with strong and moderate prior attitudes to generate 1 or 10 reasons in favor of driving a BMW in Study 1 and in favor of their preferred Democratic presidential candidate (Barak Obama or Hillary Clinton) during the primary presidential elections in Study 2. Both studies showed that participants with strong prior attitude exhibited an attitude-polarization effect (Tesser, 1978, Chaiken and Yates, 1985) and tended to provide more favorable evaluations after generating 10 reasons, whereas participants with moderate prior attitudes exhibited an ease-of-retrieval effect with more favorable evaluations after 1 reason. Thus, judgments of participants with strong prior attitudes were as susceptible as judgments of participants with moderate prior attitudes to subjective experiences albeit different ones. Participants with moderate prior attitudes used task difficulty to infer the liking of the target brand and the political candidate. In contrast, participants with strong attitudes reported higher task enjoyment which - as revealed by a mediation analysis - enhanced the evaluation of the target brand and the political candidate.

In addition, Study 2 demonstrated motivational biases (Markman and Hirt, 2002). Participants were asked to estimate the likelihoods of their favorite democratic candidate winning the election. The judgments of participants with strong prior attitudes exhibited strong allegiance bias after the long reason-generation task, mimicking the observed attitude-polarization effect.

Study 3 focused on the impact of negative prior attitudes in a counter-attitudinal task. Participants with moderate and strong negative attitudes towards the McCain-Palin presidential ticket were asked to generate 1 or 10 good reasons in favor of this ticket. Strong negative attitudes triggered a negative polarization effect. However, experienced difficulty did not play a mediating role for participants with moderate attitudes because the expectation discrepancy for this group of respondents was virtually nil. Study 4 further demonstrates that reason-contingent remuneration can moderate the diagnosticity of affective experiences induced by a reason-generation process.

Study 5 investigated whether prior attitude strength also moderates the influence of subjective experiences in choice tasks with different assortment sizes. Participants with both moderate and strong prior attitudes towards nightclubs were asked to evaluate their preferred nightclub after choosing from a limited (6 options) or an extensive (16 options) choice set. This study replicated the assortment effect for participants with moderate prior attitudes by showing that participants evaluated the chosen option more favorably when selected from the smaller choice set (Iyengar and Lepper, 2000, Chernev, 2003). Paralleling the results from Studies 1 and 2, the opposite result was obtained for participants with strong prior attitudes. Their enjoyment derived from comparing the different night clubs carried over to the evaluation of the chosen option with the result that the nightclub selected from the larger choice set received more favorable ratings.

The conclusions emerging from this work have clear implications for marketers and brand managers, since consumers with strong and of weak prior attitudes seem to experience very differently the same choice tasks and choice environments. Whereas difficulty is consistently found to affect negatively judgment and choice when prior attitudes are weak, the experienced enjoyment from the same tasks and choice settings by consumers with strong attitudes seems to enhance their product evaluations as well as increase their post-purchase satisfaction.

- Chaiken, Shelly and Suzanne Yates (1985), "Affective-Cognitive Consistency and Thought-Induced Polarization," *Journal of Personality and Social Psychology*, 49, 1470-81.
- Chernev, Alexander (2003), "When More is Less and Less is More: The Role of Ideal Point Availability and Assortment in Consumer Choice," *Journal of Consumer Research*, 30, 170-82.
- Iyengar, Sheena S and Mark R. Lepper (2000), "When Choice is Demotivating: Can One Desire Too Much of a Good Thing?" *Journal of Personality and Social Psychology*, 70, 995-1006.
- Loken, Barbara (2006), "Consumer Psychology: Categorization, Inferences, Affect and Persuasion," *Annual Review of Psychology*, 57, 453-85.
- Markman, Keith D. and Edward R. Hirt (2002), "Social Prediction and the Allegiance Bias," *Social Cognition*, 20, 58-86.
- Novemsky, Nathan, Ravi Dhar, Norbert Schwarz, and Itamar Simonson (2007) "Preference Fluency in Choice," *Journal of Marketing Research*, 44(August), 347-56.
- Schwarz, Norbert (2004), "Metacognitive Experiences in Consumer Judgment and Decision Making," *Journal of Consumer Psychology*, 14, 332 - 48.
- Tesser, Abraham (1978), "Self-generated Attitude Change," in *Advances in Experimental Social Psychology*, Vol.11, ed. Leonard Berkowitz, New York: Academic Press, 50.

The Influence of Attitude Strength on Consideration Set Size: Strong Liking Results in Smaller Consideration Sets

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This paper hypothesizes and finds support for the notion that attitude strength guides consideration set inclusion and choice, in part, by influencing consideration set size. Strongly-liked alternatives are more likely to be associated with smaller consideration sets than weakly-liked alternatives. Two experiments provide support for this hypothesis. In the first experiment, participants are exposed to an ad under high or low elaboration likelihood conditions. The participants in the high elaboration likelihood conditions report smaller consideration set sizes than those in the low elaboration likelihood condition. The second study re-analyzes the results of two previously published studies that investigated the influence of attitude strength on consideration and choice. This reanalysis provides further evidence that the greater the extent to which a chosen alternative is more strongly liked than the others in the consideration set, the more likely that the consideration set is smaller.

Drivers and Moderators of Narrative Transportation Effects in Advertising

Chair: Jesper H. Nielson, University of Arizona

Discussion Leader: Melanie Green, University of North Carolina, Chapel Hill

Constructing the Fantasy: Motivation, Transportation, and Lottery Advertising

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Often lottery ads explicitly invite the viewer to fantasize the thrill of a win, e.g., lottery campaigns such as “Win the stuff dreams are made of” (New York State Lottery) or “Can you imagine” (Lotto 6/49 – Canada). The storylines of these ads often feature protagonists striking it rich, spurring the viewer to fantasize that “it could happen to me”. Guided by the accompanying narrative, viewers are stimulated to use their imagination to fulfill their fantasy of striking it rich. An emerging body of research in consumer behavior focuses on people’s transportation into the storyline of an ad (Escalas 2004; 2007), and how individuals could get “lost” in a narrative (Gerrig 1993; Green and Brock 2000). Our research uses transportation as a theoretical framework to examine how lottery advertising motivates consumers’ desires to play the lottery. First, we fill a gap in the literature addressing when transportation is more or less likely to occur (Escalas 2007). We identify intrinsic and extrinsic motivational factors that serve as antecedents and moderators of the transportation process. In our context, this is operationalized as a belief in good luck and the attractiveness of the lottery prize being advertised, respectively. We show that these two forces moderate the extent of narrative transportation experienced by the consumer and the resulting downstream persuasion realized. Further, we build on the transportation literature, providing evidence that people who have sufficient motivation go beyond the content of the narrative, personalizing their fantasies. We contribute to the literature by showing that while transported, motivated people are more likely to not only picture themselves in the scene, but also to play an active role in the construction of the scene to suit their specific tastes. These tenets were tested in a pilot and 3 studies.

In a pilot study comparing a lottery ad that encourages consumers to fantasize to a control ad featuring humor, we show that advertisements that encourage imagination leads to more transportation. Further, the imagination ad was actually liked less than the humor ad.

Study 1 examines the relationship between transportation and motivation, identifying moderators for the effect, filling a gap in the literature (Escalas 2007). We manipulate how lucky subjects feel by first reading a gender-matched story for an ostensibly unrelated experiment about a protagonist that has everything go his or her way (fortunate), or against him or her (unfortunate). The story did not affect participants’ emotions, as there were no significant differences across a battery of 14 positively and negatively-valenced items, ruling out mood effects as an explanation for our results. This was crossed with size of prize (large or small) in a 2x2 between subjects factorial. The ad featured a man deciding how to spend his lottery winnings. The advertisement was altered by video editing professionals to create two new advertisements. One advertisement claimed the size of the lottery jackpot this week was \$1000 (as there are many small lotteries with prizes in this range), while the other claimed it was \$10 million (a relatively large prize for the jurisdiction of the study). The same announcer was used in both conditions, the ads were the same length, and otherwise featured exactly the same visual stimuli, ensuring a high level of internal consistency. Transportation was shown to be highest in the large prize/feel fortunate condition, as compared to the average of the other 3 cells, and subjects in this condition imagined themselves winning more so than the main character in this cell.

In Study 2, we measure belief in good luck, as some individuals believe that luck can act as a force in their favor, while others believe that luck is simply random chance that is unreliable (Darke and Freedman 1997). Further, we manipulated the likelihood of transportation itself using instructions adapted from Green and Brock (2000). Participants in the increase transportation condition were instructed before viewing the commercial to “Immerse yourself in the commercial, imagining what it might be like to be in that situation. You are now the main character”. In the neutral condition subjects were told “While watching the commercial, use your attention”. Finally, the manipulation to decrease transportation was

“While watching it, try to identify any claims or words that might be confusing to people who do not speak English as their native language”. A manipulation check supported the efficacy of our manipulations. If transportation is indeed driving the effects we observe, then directly manipulating it should result in a change in the effects we observe. Thus, the study was a 2(prize size large/ small) x 3(transportation increase/ neutral/ decrease) x measured belief in luck. We predict and find support for a 3-way interaction: In the large prize condition, when the motivation to transport is high and subjects are encouraged to transport, we observe the largest amount of desire to purchase, and transportation mediates this effect. In the small prize condition, since belief in luck is a more stable individual-level trait, only a main effect for belief in luck influences desire to purchase. People who believe in luck are generally more willing and likely to allow themselves to be transported and play the lottery, regardless of prize size, and transportation mediates the effects of these factors on desire to purchase.

Study 3 examines the process underlying the effects in greater detail, with the inclusion of new measures that capture what participants explicitly thought about. The study was a simple design where the \$10 million prize ad from the prior study was shown and belief in good luck was regressed on, and significantly predicted: desire to purchase, the extent to which participants could visualize a win, and had fantasies that centered on hedonic items (car, clothes, house, vacation). Participants’ thoughts also centered more on themselves than on the protagonist in the ad if they believed in luck and reported more positive affect, consistent with transportation. We also show that highly motivated viewers not only immerse themselves in the scene of an ad, but rather play an active role in the construction of a more personalized narrative.

Preference Fluency and Transportation: The Moderating Role of Processing Type

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Prior research (Novemsky et al. 2007) has demonstrated that consumer choices are often systematically influenced by preference fluency (i.e. the subjective feeling that forming a preference for a specific option is easy or difficult). When deciding on an option feels more difficult, or requires more effort, consumers are more likely to select a different option or defer the decision. We propose in our research that this preference fluency influence on evaluations occurs only when the decision relies on analytical processing. Alternatively, when evaluations are built through narrative processing, difficulty of forming preferences will lead to higher purchase intentions. This is based on the prediction that consumers engaged in narrative processing will be more likely to be transported when more effort is required to process story-based marketing communications.

Scholars in psychology as well as consumer research (e.g., Bruner 1990, Escalas 2007) propose that there are two distinct ways of thinking, analytical and narrative, and that both affect persuasion through different mechanisms. On the one hand, analytical thought persuades through dual cognitive response processes (e.g., ELM; Petty, Cacioppo, and Schumann 1983). These traditional elaboration-based persuasion models assert that facilitating elaboration of incoming information enhances message recall and brand attitudes, when the arguments are strong, but not when they are weak. On the other hand, narrative processing has been shown to affect persuasion through a mechanism called transportation, which is defined as "immersion into a text" (Green and Brock 2000, p. 702; Gerrig 1994). While "elaboration leads to attitude change via logical consideration and evaluation of arguments," transportation leads to persuasion through reduced negative cognitive responding, realism of experience, and strong affective responses (Green and Brock 2000, p. 702). Thus, under conditions of narrative transportation, affective responses influence persuasion, rather than systematic analysis of message strength. When one thinks in the form of a story, one may be "transported" by the narrative, enhancing persuasion without increasing evaluation of the message arguments or attribute tradeoffs.

However, transportation is not a lack of thought; it is a distinct process from analytical thought. Green and Brock (2000) find that differences in need for cognition and levels of cognitive elaboration do not affect transportation. They also do not find that increased “transportation” has the same negative effects on persuasion that increased elaboration does. More transportation leads to more persuasion, while too much elaboration can harm persuasion (cf. resource matching, Anand and Sternthal 1989). This distinction becomes relevant for preference fluency: more effort under conditions of narrative

processing should not harm persuasion. In fact, if more effort results in more transportation, low processing fluency may actually enhance persuasion. Specifically, then, we predict that when the story-based marketing communication is more difficult to process, participants who are motivated to process the communication will be more likely to be transported by the communication, resulting in higher purchase intentions. This is in contrast to attribute-based decisions which are likely to evoke more analytical processing and where making the communication more difficult to process has been demonstrated to reduce likelihood of choice.

In our first study, 264 adult U.S. consumers from an online panel participated in the experiment in exchange for a chance to win one of three \$100 lotteries. Participants were randomly assigned to either high or low encoding effort conditions and completed the experiments remotely on their own time. Upon logging into the experiment, participants reviewed a series of ad story boards featuring screen captures and the story line from a Toyota Tundra pickup truck commercial. The story line was presented below the images in either easy to read (low processing demand) or difficult to read (high processing demand). (Our manipulation was an adaptation of the Novemsky et al. (2007) study 1 manipulation.) Narrative transportation was measured using 7 items adopted from Green and Brock (2000), and purchase intentions were measured with a two-item, 0 to 100 scale (Escalas 2007).

Consistent with our predictions, we find an effect of processing difficulty on purchase intentions that is reverse of the preference fluency effect (Novemsky et al. 2007). Participants who were exposed to the difficult condition indicated higher purchase intentions for the advertised product ($M=55$) than did participants in the easy condition. As predicted, this finding is opposite in direction to that of Novemsky et al.'s (2007) findings for analytically based choice processes. We also find that narrative transportation mediates the effect of fluency on purchase intentions in this story-based communication setting (via the regressions outlined in Baron and Kenny 1986). Processing difficulty was a significant predictor of attitude change as described above and processing difficulty significantly predict narrative transportation. Furthermore, including the latter in the regression equation also attenuated the impact of processing difficulty on purchase intentions, whereas the effect of narrative transportation remained significant. Our findings thus confirm that unlike analytically based decisions, when marketing communications persuade through narrative processing, increasing processing difficulty results in higher purchase intentions for the advertised product. This influence of processing difficulty on purchase intentions were fully mediated by narrative transportation.

The Interaction of Media Content and Advertising

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An ad appears during a commercial break in a television program. A consumer's reaction to the ad will be a function of the desirability of the product being advertised and the effectiveness of the ad itself. It will also, however, be a function of the media context of the ad. The program provides a context that will affect the ad.

Many past studies document the existence of media context effects on advertising (e.g., Malthouse and Calder forthcoming; Murry, Lastovicka, and Singh 1992; Norris and Colman 1992; Soldow and Principe 1981). This work generally finds positive effects in which involving media content makes responses to an ad more positive. We seek to draw on two lines of current research to develop a theory of how media content and advertising affect each other and to provide a test of its central thesis.

One line of research approaches media content and advertising in terms of thematic content. Parker and Furnham (2007) looked at ads embedded in a program with sexual content versus the same ads in a non-sexually themed program and found that the sexually themed context decreased recall of the ads. Similar studies have examined other thematic content (Bushman 1998; Bushman and Bonacci 2002; Furnham, Gunter, and Walsh 1998; Gunter, Furnham, and Pappa 2005). Thematic content studies have thus focused on showing that thematic content affects ads and exploring the role of thematic congruence, which sometimes has no effect, sometimes a negative effect, and sometimes a positive.

Another line of research approaches media content and advertising in terms of consumer experience. Wang and Calder (2006), building on the work of Green and Brock (2000), identify one important type of experience, transportation. It is the experience of being absorbed into a story to the extent that one feels transported into the world of the story. It is being

caught up in the “flow” (Csikszentmihalyi 1990, 1997, 2000) of the story. Wang and Calder (2006) show that the transportation experience enhances ad effectiveness when an ad is after the end of a story but decreases effectiveness if the ad appears in the middle of the story. They interpret this result as indicating that an ad at the end of the story benefits from the positive transportation experience but that an ad in the middle interrupts the transportation experience and is evaluated more negatively because of this. Wang and Calder (2006) also show that the transportation experience functions independently of another media experience, extrinsic involvement with the story, that is, taking away useful information from the story.

We summarize the view of media content and advertising emerging from these two lines of research as follows. Program content matters. One way that it matters is that certain content can be highly transporting. The consequence of such transportation depends on the ad, and one aspect of the ad that may be particularly important in this respect is thematic congruence. An ad that is thematically congruent may get more attention and thus be affected more by the level of transportation. But this effect will depend on whether the ad is more or less intrusive on the transportation experience. A thematically congruent ad may be intrusive or not. If it is, high transportation leads to a negative effect on the ad. If it is not, high transportation has a positive effect.

It is therefore crucial in testing this understanding of media context effects to find a way to determine whether a thematically congruent ad is intrusive or not. Thematic congruence implies only attention, and not necessarily how intrusive an ad will be. So in this study we manipulate how intrusive the ad is in terms of where it appears in the program content. An ad that appears at a climatic, peak moment in a story should be more intrusive on transportation, whereas an ad that appears after a climatic moment, where tension in the story has been resolved, should be less intrusive on transportation. Both effects assume that the ad is sufficiently attended to, and thematic congruence is one way of producing such attention. This leads to the following hypotheses.

H1: Under conditions of thematic congruence, an ad appearing in a peak moment in a story will be reacted to less favorably if the story produces a high (vs. low) transportation experience.

H2: Under conditions of thematic congruence, an ad appearing in a post-peak moment in a story will be reacted to more favorably if the story produces a high (vs. low) transportation experience.

In three studies, we showed that a high level of transportation with media content negatively affects an ad when the ad and media content share similar themes. The very consumers who experience high transportation with the content are the ones to be more negative toward the advertising. In addition, consistent with the second hypothesis, we show that an ad can be more effective with consumers experiencing high transportation if the exposure to the ad occurs at a natural break in the story.

Time Dependent Preferences

Chair: B. Kyu Kim, University of Pennsylvania

Discussion Leader: Mark Wittmann, University of California, San Diego

Shifting Product Attitudes: The ‘Time > Money Effect’

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References to time and money are pervasive in the consumer landscape. Consider, for example, the marketing campaigns of two brands of beer: Guinness’s “It’s worth the wait” commercials have appealed to consumers by guiding attention to time whereas Stella Artois’s “Perfection has its price” campaign has appealed through focusing attention on money. Even Citibank, an institution based on monetary transactions, brings focal attention to how one chooses to spend time (not money) in their “Live Richly” campaign (e.g., “There is no preset spending limit when it comes to time with your family”). In fact, a content analysis of ads in four very different magazines (Money, New Yorker, Cosmo, and Rolling Stone) revealed that, out of the 300 advertisements, nearly half of the ads (48%) integrated the concepts of time and/or money into their messages.

Despite the preponderance of marketers’ decisions to integrate these constructs into their communications, little is known about the downstream effects of directing consumers’ attention to time or money. Does the mere mention of time versus money change the way consumers evaluate products? And if so, why?

To address these questions, we ran four experiments, both in the field and in the laboratory. The results converge to show that, compared to activating money, activating time leads to a systematic boost in product attitudes. This “time > money effect” appears to be driven by distinct temporal and monetary mindsets which evoke different thoughts and feelings about a product.

Specifically, a temporal mindset heightens participants’ considerations of personal relevance. Indeed, spending time has previously been shown to be more intimately connected to one’s personal identity than spending money (Reed et al. 2008), largely because it requires a greater degree of personal investment and effort (Belk 1998). Since time spent and the accumulation of life experiences quite literally constitutes an individual’s life, how one chooses to spend one’s time carries great meaning and is fundamentally tied to the individual’s identity (Carstensen, Isaacowitz, & Charles 1999; Van Boven & Gilovich 2003). We examined whether putting a consumer in a temporal mindset by activating the construct of time prior to product judgment led consumers to reflect on their experiences with the product—thereby surfacing feelings of personal connection with the product and resulting in more favorable product attitudes (Belk 1998).

In contrast, a monetary mindset should not foster such a personal connection. Despite some individuals’ value for money in and of itself, the primary value of money comes from its instrumentality in acquiring products (Lea & Webley 2006), with greater amounts of money promising access to more and higher quality products. Therefore, not only is there an implicit relationship between money and the value of the goods it can acquire, but money can serve as a means to achieve self-sufficiency, facilitating disconnection from others (Vohs et al. 2006). This suggests that activating a monetary mindset would lead to a personal disconnection from a product and, in general, less favorable attitudes.

Across four experiments, we found support for our hypothesis that activating time (vs. money) leads to more favorable product attitudes. And further, this “time > money effect” is driven by the distinct mindsets that each activates, with the temporal (vs. monetary) mindset evoking greater feelings of personal connection.

In experiment 1, student participants were first asked to report either the amount of time they spent on their iPod or the amount of money they spent on their iPod. Those who were led to think about their time spent subsequently reported more positive attitudes towards the product than those led to think about their money spent. Further, this “time > money effect” was mediated by participants’ feelings of personal connection with their iPods.

Experiment 2 was conducted to examine whether the “time > money effect” is driven by increased feelings of personal connection with the product, or if a mere valence-based account could explain the results (e.g., differential attention to the monetary costs of purchasing the product versus the temporal benefits of consuming the product). Therefore, experiment 2 was conducted at an outdoor concert that was free of charge but for which some individuals spent extensive amounts of

time waiting before the concert to ensure getting decent seats. Just prior to the start of the concert, participants were asked either how much time or how much money they spent in order to see the concert. The results revealed that even in instances where the expenditure of time represented a considerable cost, activating time led to more positive attitudes towards the product than activating money, and this effect was mediated by feelings of personal connection with the product.

Participants in experiment 3 were primed with either time or money using a sentence scramble task to determine whether the “time > money effect” occurs only when time and money are activated through an overt question, or whether it can also occur when the constructs are activated more subtly. Experiment 3 also offered further insight into the underlying process through a test of moderation. Specifically, if feelings of personal connection underlie the effect, we would expect it to be particularly strong for experiential purchases (those that “are made with the primary intention of acquiring a life experience”) compared to material purchases (those that “are made with the primary intention of acquiring a material good”; Van Boven & Gilovich 2003, 1194). Supporting our conceptualization that the activation of time (vs. money) boosts product attitudes by leading consumers to reflect on their purchase as part of their personal life experience, we found “the time > money effect” to be stronger for experiential purchases than material purchases.

Finally, in experiment 4, individuals were primed with either time or money using the same sentence scramble task as used in experiment 3 before entering a café. Upon leaving the café, those who had been primed with time reported more positive attitudes towards the café than those who had been primed with money, revealing that the “time > money effect” is strong enough to impact how individuals actually experience the products they consume.

From Impulsivity to Myopia: Deconstructing Present-Biased Preferences through Time Perception

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Research on intertemporal decisions has well documented systematic temporal preference inconsistencies: an individual who may prefer a larger later reward over a smaller sooner reward when both are delayed well in the future switches her preference and chooses the smaller reward as the rewards draw closer in time (e.g., Kirby and Herrnstein 1995). This tendency to weigh immediate outcomes more heavily than delayed outcomes as they get closer to the present has often been referred to impulsive choices (Loewenstein 1996) or present-biased preferences (O’Donoghue and Rabin 1999; Rabin 2002), and modeled with non-exponential discount functions such as hyperbolic (Chung and Herrnstein 1967; Ainslie and Haslam 1992; Loewenstein and Prelec 1992) or quasi-hyperbolic discount functions (Laibson 1997).

Although a substantial body of empirical evidence demonstrating present-biased preferences has accumulated, and various models have been proposed, little is known about the underlying psychological mechanisms. Some researchers have attributed this effect to affective reactions toward immediately available outcomes. For example, Loewenstein (1996) argued that intensely activated visceral factors, such as sexual arousal or hunger, exert a disproportionately strong impact on the desirability of immediate consumption, thus enhancing the valuation of immediate relative to delayed consumption. Concrete mental representation of outcomes has also been shown to account for present-biased preferences by increasing decision makers’ emotional reactions toward outcomes (Loewenstein 1996; Malkoc and Zauberman 2006; Metcalfe and Mischel 1999).

In the current paper, we argue and demonstrate that the affective and cognitive factors known to increase decision makers’ impulsivity influence intertemporal preferences by changing subjective time perception. Specifically, we examine whether hot drive state and concrete representation of outcomes induce myopic time perception and shift intertemporal preferences.

First, we propose our theoretical framework of myopic time perception. Specifically, we propose two types of myopia: time-expansion and non-linearity. Time-expansion indicates the tendency to overestimate the perceived length of prospective time horizons (e.g., Block and Zakay 1997; Vohs and Schemichel 2003; Wittmann and Paulus 2007). That is, decision makers who are myopic perceive the temporal distance toward delayed rewards to be longer than those who are less myopic. Non-linearity is characterized by more rapidly diminishing sensitivity to the changes in time horizons (or delays). We illustrate theoretically how each type of myopia contributes to the changes in intertemporal preferences. Next,

we empirically test in three experiments whether hot drive states and concrete representations of either immediate or delayed rewards influence decision makers' subjective time perception and intertemporal preferences.

In Experiment 1, we examined the impact of hot drive state on subjective time perception. Male participants rated either pictures of sexually attractive women or neutral objects such as rocks and trees. Next, they indicated subjective feelings of duration between today and multiple time horizons (e.g., 3 months to 36 months) presented in a random order. Results showed that participants who rated sexually attractive women overestimated time horizons and discounted the value of delayed outcomes more than those who rated neutral pictures.

Experiment 2 examined the effect of concrete representation of immediately available outcomes on time perception. Participants in the concrete representation (vs. control) condition visualized the occasion of receiving and spending an immediately available cash prize as concretely as possible. As predicted, those who visualized immediately available outcomes concretely were less sensitive to changes in time horizons, and showed an increased level of present-biased preferences compared to those in the control condition. More importantly, this change in intertemporal preferences was shown to be caused by the shifts in time perception.

In Experiment 3, we tested whether concrete representation of delayed consumption induces less myopic time perception and reduces the level of present-biased preferences. Using a block design of time perception and intertemporal preference tasks for multiple time horizons, we found support for reductions in non-linearity and subsequent changes in present-biased preferences.

Taken together, our results demonstrate that impulsivity inducing factors such as hot drive state and concrete mental representation, which were known to increase decision makers' emotional reactions toward immediately available outcomes, exert their impact on intertemporal preferences, at least in part, by shifting decision makers' subjective time perception. These results further imply that the cause of present-biased preferences may not necessarily be in the direct impact of decision makers' impulsivity toward immediate consumptions, but instead in the indirect impact of subjective time perception.

Looming Losses in Future Time Perception

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Consider two consumers who learn that they must move from Manhattan to San Francisco in two months. Imagine that for one of these individuals, the move represents the fulfillment of a longstanding wish, so she focuses on all that she will gain in the move (such as nice weather and spectacular scenery). Imagine, however, that for the other individual, the move is unwelcome news, and he focuses instead on what will be lost (such as the excitement of Manhattan and proximity to family). The two consumers, although facing the same move in two months, starkly differ in whether they perceive the move as a gain or a loss. Although there are likely many consequences of this difference, we focus in particular on one subtle but important consequence: whether coding the move as a gain or loss influences how long the time until the move seems.

Such fluctuations in future time perception could be quite consequential for consumption. For example, decisions about trading off current versus future consumption, or about discounting future transactions (Loewenstein, Read, and Baumeister 2003) may be affected by the perceived nearness of the "future" in question. Similarly, consumer planning, including estimates of future consumption and decisions about repeat purchases, may also be affected by the perceived length of the focal time interval (Morwitz 1997).

This paper thus examines whether the perceived length of future intervals (and also consumption decisions involving those intervals) is affected by whether the intervals end with gains or losses. We predict that losses play a special role in time perception: just as losses seem generally larger and more prominent than gains (loss aversion, Kahneman and Tversky 1984), losses might also seem nearer and more proximal than gains (temporal loss aversion). If so, then intervals ending with losses may seem shorter than equivalent intervals ending with gains.

We first manipulated whether a two-month interval would end with a gain or loss. All participants were asked to imagine moving to a new office in two months. Participants in the gain condition were to move into a better office (i.e., from an

80-square foot, windowless office to a 100-square-foot, one-window office), whereas those in the loss condition were to move into a worse office (i.e., from a 120-square-foot, two-window office to the 100-square-foot, one-window office). All participants then rated how long the two-month period until the move seemed on a 1 (seems very short) to 7 (seems very long) scale. Supporting the idea that losses loom nearer, those moving to a worse office perceived the interval as shorter than did those moving to a better office ($p < .01$). We replicated this effect using a different context (job switching) and across different time intervals (one, two, or four months). Additionally, the effect held whether we held endpoints objectively constant, varying starting positions between conditions (as above), or held starting positions constant, varying endpoints.

We suggest that these results may reflect a phenomenon akin to loss aversion in future time perception. If there are parallels between loss aversion and these effects, one might expect the effects to be moderated by factors shown to affect loss aversion, such as exchange intentions. Specifically, previous research suggests that people feel less loss aversion for goods that they intend to exchange (Novemsky and Kahneman 2005). We thus manipulated whether or not participants viewed their current offices as intended for exchange, predicting that “losing” an office that is intended for exchange should not influence time perception to the same degree as losing an office not intended for exchange (as only the latter change should give rise to loss aversion). Participants were assigned to one cell of a 2 (endpoint valence: better or worse office) x 2 (starting position: temporary or permanent office) between-subjects design. There was a significant interaction between endpoint valence and starting position ($p < .05$), such that while an office loss was seen as occurring sooner than a gain when the starting office was one’s permanent office ($p < .001$), the endpoint-valence effect was weaker when that starting office was explicitly temporary ($p = .07$). Thus, interval endpoints may loom especially near to the extent that end-of-interval changes are likely to give rise to loss aversion.

A final experiment investigated whether temporal loss aversion influences two important consumer variables: (1) planned future consumption, and (2) consumer impatience (i.e., discount rates). We manipulated outcome valence using a scenario that involved replacing one’s cell phone with either a better or worse model. Consumers expecting to receive a worse cell phone in two months not only perceived the target interval as shorter ($p < .001$), but also anticipated that the interval would not afford them enough time to order a car charger for the new phone ($p < .001$). In another experiment, participants received the phone-valence manipulation and considered whether they would pay a premium to receive another, unrelated product immediately, instead of waiting to receive that product when the new phone arrived in two months. More participants in the better-phone than worse-phone condition chose to pay the premium to receive the unrelated product immediately ($p < .05$), consistent with end-of-interval gains fostering longer-seeming time intervals, and thus, impatience. Importantly, perceived interval length mediated the impact of phone valence on the choice of whether to pay the premium.

In sum, losses appear to occur sooner than equivalent, equidistant gains. This pattern may partially explain why losses are usually discounted less sharply than objectively equidistant gains (Thaler 1981). These findings expand our understanding of future time perception and also have important practical implications. Interestingly, consumers may often find themselves in the unfortunate position of not only ruing an upcoming loss, but also seeing it as happening rather soon. On the positive side, viewing that loss as near may decrease impatience, reduce procrastination, and foster early attempts at coping. We hope that further research will explore future time perception and temporal loss aversion to shed light on the psychology of time and on the multitude of consumer decisions involving the future.

Controlling Motivation, Consumption, and Shopping

Chair: Jun Lu, University of Chicago

Discussion Leader: Marcus VM da Cunha, Jr., University of Washington

The Sprinter Effect: When Extremely Motivated Consumers Fail to Overcome Depletion

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Consumers' everyday behavior comprises a sequence of tasks, most of which demand some degree of self-regulation. These tasks may be anticipated or not. In many cases, consumers start off with a planned task, such as going for a workout at the gym. However, another task often enough is tagged on to these consumption tasks: a task that was not pre-planned, such as buying a fruit shake at the juice bar after the workout. These second tasks are as important to consumers' financial and physical well-being as the first tasks in the series, yet because they are unplanned, they are in many cases overlooked. It is therefore important to learn how performance of the first task affects performance of the subsequent task, as a function of task expectancy or pre-planning.

Motivation was found to be an important factor in consumers' performance on a series of tasks demanding self-regulation, through a positive linear effect on consumers' ability to regulate their behavior (Baumeister, Vohs, and Tice 2007; Muraven and Slessareva 2003; Vohs and Faber 2003). Contrary to this literature, we propose that motivation will have a positive linear effect on the performance of the first task – as past research has demonstrated – yet unexpectedly, will have an inverted U-shape effect on the performance on the second task.

It is proposed that extremely motivated consumers, those high in both external motivation, such as task involvement, and high in internal motivation, such as dispositional self-control, will perform well on a planned self-regulating task, yet when faced with a second, unexpected self-regulating task, these consumers will exhibit a severe drop in performance. We attribute this to consumers' mindsets, and suggest that as long as consumers do not anticipate a stream of tasks, they are in what can be termed a sprint mindset. This mindset encourages highly motivated consumers to invest an excessive amount of effort in performing the planned task, and they are thereafter left with insufficient resources to perform well on a second unplanned task. However, if highly-motivated consumers anticipate two tasks, they are in what can be termed a marathon mindset and thus manage their resource allocation over the two tasks more efficiently, such that motivation becomes the key driver for elevated performance in both tasks.

We term elevated performance on the first planned task followed by a severe drop in performance on the second unexpected task, as the sprinter effect.

To sum, we hypothesize that performance as a function of motivation depends on consumer's mindset:

H1: Under a sprint mindset: Extreme motivation improves performance in the first task but jeopardizes performance in the second task.

H2: Under a marathon mindset: Extreme motivation improves performance in both the first task and the second task.

We demonstrate the sprinter effect in tasks involving brand name recognition (study 1) in lab settings, and in unplanned purchases by actual shoppers at a grocery store (study 2). Finally we demonstrate how switching from a sprint mindset to a marathon mindset, induced by informing individuals about the outline of the forthcoming tasks, diminishes the sprinter effect (study 3).

Study 1 – Lab experiment

We tested participants' performance in a resource-depleting task and then their performance in a second resource-depleting task, which was recognizing "jumbled-up" known brand-names. Under the depleting condition, extremely motivated participants performed well in the first task in comparison to moderate and low motivated participants. However, the same extremely motivated participants performed worse in the second task, the brand recognizing task. That is, after performing the best in the first depleting task, the extremely motivated participants recognized the fewest brand names compared to those with lower levels of motivation.

Study 2 – Field experiment

We conducted the second study at a grocery store with actual shoppers. Both involvement and a resource-depletion task were activated before shoppers entered the store. We considered shoppers' browsing in the store and purchasing pre-planned products (i.e. those on their shopping list) as the first task, while shoppers' effort to resist buying unplanned products from the shelves near the cashier as the second resource-depleting task. As hypothesized, under a depleted state, the extremely motivated shoppers were more likely to impulsively buy products from the shelves near the cashier, than other, less motivated shoppers.

Study 3: De-biasing the sprinter effect

Following past research on the resource conservation strategy in a series of tasks (Muraven et al. 2006), we suggest that all consumers, and especially highly motivated consumers, when informed about upcoming tasks, adopt a marathon mindset, and hence, will apply a resource conservation strategy, and the sprinter effect will diminish.

Accordingly, in Study 3, we repeated the procedures used in Study 1 with two exceptions; First, participants were informed about the total number of tasks at the outset. Second, the second task was a hypothetical consumption scenario wherein participants indicated their probability of impulsively buying different grocery products while waiting in line to pay.

As expected, the results of this study alter the results of studies 1 and 2 and show that when planning ahead, the sprinter effect is diminished. In the depleting condition, extremely motivated participants were less willing to buy impulsively grocery products in comparison to participants with lower motivation levels.

Too Much of a Good Thing: Insensitivity to Rate of Consumption Leads to Unintended Satiation

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Repeated consumption of hedonic experiences is ubiquitous. Consumers eat their favorite foods repeatedly, listen to their favorite songs time and time again, and socialize with the same close friends regularly. Such repetition can lead to satiation. In one study, participants listened to a 45-second sample of a favorite song 15 times in quick succession, rating their enjoyment of the experience along the way. What began as an enjoyable experience became downright unpleasant after only 6 repetitions (Ratner, Kahn & Kahneman, 1999, Expt 1). Indeed, the notion that repetition decreases enjoyment of pleasurable experiences is a central tenet both of psychological and economic theories of taste (Helson, 1947; 1964; Mas-Colell, Whinston & Green, 1995; although see Zajonc, 1968 for an important exception).

Satiation, however, is not inevitable. A delay between exposures, for instance, can attenuate (and even halt altogether) satiation. Whereas the same song might grow tiresome if repeated in quick succession, a space between exposures reduces satiation. Are consumers aware of the impact of rate on satiation? Do they maximize satisfaction by choosing a sufficient inter-consumption delay between consumption? The present research addressed these questions.

Participants in Study 1 listened to a novel but (initially) well-liked song. Some participants went on to listen to the song 6 more times (experiencers), rating their enjoyment of the song after each iteration. Other participants merely imagined listening to the song repeatedly and predicted these ratings (forecasters). Orthogonal to this manipulation, one condition had a short break between iterations, whereas in the other condition consumption was back-to-back. Rate had a considerable influence on actual satiation, but had no influence on anticipated satiation. Participants enjoyed the song considerably more if there was a delay between consumption, but showed no difference in predicted enjoyment.

One implication of the results of Study 1 is that consumers may choose inter-consumption intervals that fail to maximize their satisfaction. If consumers do not realize the extent to which an inter-consumption delay can prolong liking, then they may not optimally space consumption. The next two studies were designed to test this hypothesis.

In Study 2, participants consumed a well-liked drink (Starbucks Mocha Frappuccino) while watching a 10-minute television program. In one condition, participants drank the beverage as quickly (or slowly) as they wished. In the other condition, participants were limited to one-sixth of the beverage at six evenly spaced intervals throughout the duration of the 10-minute program (i.e., every 100 seconds). Not surprisingly, participants consumed more quickly when left to their own devices than when an inter-consumption delay was imposed upon them. Also as predicted, participants enjoyed the

beverage more when consumption was spaced than when they consumed at their own (faster) rate. Of course, one explanation for the results of Study 2 is that instead of failing to realize that they would enjoy the beverage more if they slowed their consumption, they simply lacked the self-control to do so. After all, there is no shortage of studies that attest to the occasional difficulty people have in avoiding temptation, even with full awareness that they are doing so (Loewenstein, 1996). Would participants choose a similarly sub-optimal rate of consumption if they made their choices in advance, prior to the influence of immediate temptation? Our third and final study was designed to find out. Participants once again were offered the opportunity to repeatedly consume a well-liked stimulus while watching a television program. This time, however, participants who chose their own rate of consumption did so prior to the experiment. Specifically, participants were told they would be given 6 Hershey's Kisses during a 20-min television program and asked to choose their inter-consumption interval (from a minimum of 10 to a maximum of 200 seconds). Importantly, participants were instructed to select the interval they thought would maximize their enjoyment of the chocolates. As in Study 2, another group of participants had no such choice and consumed the Kisses at the maximum possible inter-consumption interval (200 sec). As in Study 2, participants who chose their own rate of consumption consumed the chocolates more rapidly than those who were assigned the maximum inter-consumption interval. Also as in Study 2, this resulted in decreased enjoyment. Taken together, the results of these studies suggest consumers underestimate the impact of rate on satiation, and consume more rapidly than is optimal. In studies 2 and 3, paradoxically, participants asked to maximize their utility were less satisfied than those who had their rate of consumption decided for them. It appears that insensitivity to rate of consumption can lead to unintended satiation.

Helson, Harry (1947), "Adaptation-Level as Frame of Reference for Prediction of Psychophysical Data," *American Journal of Psychology*, 60, 1-29.

--- (1964), *Adaptation-Level Theory: An Experimental and Systematic Approach to Behavior*, New York: Harper & Row.

Loewenstein, George (1996), "Out of Control: Visceral Influences on Behavior," *Organizational Behavior and Human Decision Processes*, 65 (3), 272-92.

Mas-Colell, A., M. D. Whinston, and J. R. Green (1995), *Microeconomic Theory*, Oxford: Oxford University Press.

Ratner, Rebecca K., Barbara E. Kahn, and Daniel Kahneman (1999), "Choosing Less-Preferred Experiences for the Sake of Variety," *Journal of Consumer Research*, 26 (1), 1-15.

Zajonc, Robert B. (1968), "Attitudinal Effects of Mere Exposure," *Journal of Personality and Social Psychology*, 9(2, PT. 2), 1-27.

The Prudent Shopper: Self-Control in Shopping

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Consumers are often portrayed as victims of modern retail environments. Prior research has demonstrated the effectiveness of a wide variety of marketing actions at boosting sales, be they explicit marketing devices such as sale signs, or more implicit cues within the shopping environment such as carefully-selected background music and scents.

In a series of field experiments conducted at a local convenience store, we demonstrate that consumers can sometimes oppose spending influence attempts: purchase inducing cues, instead of motivating consumers to spend, can backfire, making more salient the possibility of diverging from the higher-order goal of acting prudently by overspending, and putting consumers into a more frugal state of mind instead to the extent that they can end up spending less than they otherwise would (see Trope and Fishbach 2000). In each experiment, we monitored and analyzed consumers' spending behavior under different conditions. Across all three experiments, we consistently employed an offer of a shopping basket as the primary vehicle via which we prompted store customers to spend, hence making salient the possibility of overspending to consumers and potentially triggering them to monitor their shopping.

Experiment 1 (N = 356) was designed to investigate the basic effects of external spending triggers on consumer spending.

Upon entering the store, one hundred customers were first offered a \$1-off coupon by a research assistant disguised as a store assistant, and immediately after, a regular shopping basket from the store; another one hundred customers were offered only the coupon (and not the basket). While customers who were offered only the coupon did not differ in average spending compared to (156) control customers who were offered neither a coupon nor a basket, customers who were offered both the coupon and the basket spent significantly less than those in the other two conditions. In two follow-up prediction studies, we showed that this prudent shopping effect conflicts with lay beliefs: respondents in both studies mispredicted that customers offered a shopping basket would spend more, not less (as we have found in Experiment 1) than those not offered a basket. While it seems reasonable to assume that a basket would afford customers more capacity to carry their purchases while shopping, these divergent prediction results suggest that the activation of the prudent shopping goal (due to a spending prompt) is automatic.

An underlying assumption of our self-control account is that cognitive resources are required for deliberately exercising vigilance and prudence in spending even if the initial activation of the prudent spending goal can be automatic. In our shopping context, this assumption implies that when consumers experience significantly reduced cognitive capacity, they should be less capable of exercising self-control when confronted with spending motivators and could perhaps spend even more than they normally would. We thus sought support for the self-control account in Experiment 2 (N = 150) by manipulating consumers' cognitive ability to exercise prudence during shopping. Customers who entered the store were approached before shopping for an experiment purportedly designed to study "the effects of shopping on memory"; they were asked to memorize either a random two-digit number ("low-load") or a random eight-digit number ("high-load"); all participants were also given both a \$2-off coupon and a shopping basket and told that they would have to reproduce the correct number after shopping to redeem the coupon. The results revealed that customers under higher cognitive load spent significantly more and bought more items, compared to both customers under lower cognitive load as well as control customers who were also offered a coupon and a shopping basket but did not memorize any numbers. These results hence provided support for our self-control account: as cognitive resources are needed for exercising counteractive self-control, depriving consumers of these resources can substantially impede their ability to monitor their wallets while shopping.

In Experiment 3 (N = 120), we tested the self-control account more directly by examining the degree to which the prudent shopping effect depends on consumers' chronic impulsiveness to spend. As in Experiment 1, half the customers were offered a \$1-off coupon with a shopping basket, whereas the other half were offered only the coupon. After these customers had completed their shopping and checked out their items at the cashiers, they were asked to complete a post-shopping survey that included Puri's (1996) consumer impulsiveness scale as well as a number of questions added to tap their spending attitudes. The results revealed that the prudent shopping effect was more pronounced among impulsive shoppers who would benefit more from external cues that reminded them to be cautious not to overspend. Additionally, customers who were prompted to spend with a shopping-basket offer rated themselves as more frugal compared to those who did not receive the basket offer, further supporting the self-control account.

Overall, our results suggest that some marketing initiatives designed to increase consumer spending could backfire with some consumers in that they might suppress rather than boost spending. Further research is needed to examine such implications as well as boundary conditions for the prudent shopping effect on consumer spending. (832 words)

Puri, Radhika (1996), "Measuring and Modifying Consumer Impulsiveness: A Cost-Benefit Accessibility Framework," *Journal of Consumer Psychology*, 5, 87-113.

Trope, Yaacov, & Ayelet Fishbach (2000), "Counteractive Self-Control in Overcoming Temptation," *Journal of Personality & Social Psychology*, 79, 493-506.

Uncovering the Dynamics of Goal – Progress

Chair: Kelly Goldsmith, Yale University

A Race to the Finish: Rates of Donation Increase as Charities Approach Their Fundraising Goals

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As humans and other animals approach reaching a goal, their efforts toward achieving that goal increase. For example, rats run faster as they approach receiving a food reward (Hull 1932) and humans increase effort as they approach receiving an effort-contingent reward (Kivetz, Urminsky, and Zheng 2006). We propose that this effect of goal proximity on effort, at least for humans, occurs in part because of a connection between goal proximity and the tangibility of one's efforts. That is, efforts at the end of the process feel more satisfying and influential than do efforts near the beginning of a process (e.g. Miller and Gunasegaram 1990). We therefore predicted that goal participation would increase as a goal nears completion, even when people help *others* toward a goal instead of pursuing their own incentive-based goal. In two field studies, we tested this prediction in the domain of charitable giving.

Study 1 was an internet field study that used information from the Kiva website (www.kiva.org). Kiva is a non-profit organization that facilitates brokerage of low-interest loans to low income individuals in the developing world. On the Kiva website, potential loan recipients are listed along with information about their background, the nature of their loan request, and the progress that they have achieved towards reaching their loan amount goal. Individuals can go to the Kiva website and contribute money towards recipients' loan amount goals.

Using a web robot (i.e., a Bot), we collected information every hour, every day, for approximately one week for each loan recipient listed on the website (Number of recipients = 209; Number of Observations = 2011). We collected information on the loan amount requested by each recipient and the level of progress towards the goal that each recipient had achieved.

Results supported the main hypothesis that rates of donation increase as recipients approach their fundraising goals. The rate of progress when recipients were 33-66% of the way toward reaching their fund-raising goal was significantly and substantially greater than when recipients were 0-33% of the way towards reaching their goal ($p < 0.01$), and the rate of progress when recipients were 66-100% of the way toward reaching their fundraising goal was significantly and substantially greater than when recipients were 33-66% of the way towards reaching the goal ($p < 0.01$).

Study 2 was a field experiment conducted in partnership with the Southwestern Pennsylvania Chapter of the American Red Cross. Thirteen thousand five hundred Red Cross donors received one of four mailings. The mailings informed them that the fund they could support was either 1) 10%, 2) 66%, or 3) 85% of the way towards reaching its goal, or 4) the mailing did not mention the fund's progress towards the goal (control condition). Results revealed that donation rates increased when a fund was very close to reaching its fundraising goal. In a pattern similar to that from Study 1, results revealed a large benefit to mentioning that a fund was 85% of the way towards its goal but less benefit to mentioning that a fund was 10% or 66% of the way towards its goal ($p < 0.05$).

In sum, results from two large-scale field studies reveal that rates of donation increase as charities approach their fundraising goals. The work extends previous findings concerning goal-gradient motivation (i.e., increased effort as people approach goals, Kivetz et al., 2006), by demonstrating a goal-gradient pattern in a context with other's goals instead of one's own incentive-based goals. This finding of a goal-gradient pattern of charitable donations is consistent with the notion that efforts at the end of the process feel more satisfying and influential than do efforts near the beginning of a process.

Goal Visualization and Goal Pursuit

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Research on goal-following informs us that proximal goals, which are easier to attain than distal goals, increase motivation and performance (Bandura & Schunk 1981; Naylor & Ilgen 1984). Furthermore, effort invested in reaching a goal increases with (perceived) proximity to that goal (the goal-gradient effect; Hull 1932; Kivetz, Urminsky & Zheng 2006). We posit that the ease of visualizing a goal may also influence proximity perceptions and therefore enhance goal pursuit. Consistent with the goal-gradient effect, we expect these influences of goal visualization to manifest to a greater extent when an individual is closer to her goal than when she is farther away.

Considerable research in social and cognitive psychology has shown that mental simulation enhances ability to visualize actions and outcomes, thereby increasing goal-directed behaviors (Pham & Taylor 1999). We posit that external markers which enhance an individual's ability to visualize the future can also increase goal following. Specifically, we show that visual representations, being easier to process relative to other forms of representations (Larkin & Simon 1987), enhance an individual's ability to visualize their goal. We draw from literature on geographical distance perceptions to provide process support for our proposition. This literature suggests that individuals who can see an object often judge it to be physically closer than do people asked to judge the distance of an equidistant, but hidden, object (Nasar 1983). Thus, the ease with which an external goal marker can help visualize a goal might influence perceptions of goal proximity. Consistent with research on goal following (Kivetz et al. 2006), this perceived proximity may lead to increased motivation and performance. These effects, however, are more likely when one is closer to the goal, and the goal marker is salient, than when one is farther away.

In summary, we argue that for individuals who are close to their goal, representations that aid goal visualization will increase perceptions of goal proximity and hence will enhance goal-following, relative to representations where the goal is relatively harder to visualize. We test these predictions in four studies, as described next

In study 1, we analyze data from sectional and the 2004 Olympics 1500m swimming competitions (30 laps of 50m each). We find that individuals swim faster (take less time) when swimming towards the end of the pool that hosts the finish line than when swimming away from the finish line. The finish line (relative to the other end) acts as a proxy for the finish and makes it easier to visualize the goal (end of the race), eliciting greater effort. Furthermore, as expected, these effects were stronger towards the end of the race. These effects also replicate for the 2008 Olympics 1500m swimming data.

In study 2 we assessed individuals' ability to sustain pressure on a hand dynamometer for 130 seconds, and find that a visual representation of the finish enhances performance. In the easy visualization condition, participants see a bar filling up on the screen (labeled start and finish). In the hard visualization condition participants see a 30 second stopwatch. Visualizing the finish was harder in the stopwatch condition because 130 seconds corresponds to 4.33 rotations. Note that, in both conditions, participants can see time progress. We find that effort exerted declined over time. However, this decline was less steep for participants in the easy (vs. hard) visualization condition.

In study 3 we investigate the process associated with beneficial effects of goal visualization. Participants read that they are preparing for an exam and are either close to the goal or are far from it. We also manipulated ease of visualization between subjects. In the easy visualization condition participants see a bar that is shaded part way indicating how much of the material they have already studied. In the hard visualization condition participants were provided the same information in a numerical format. Consistent with our hypothesis, when the goal was near, participants in the easy (vs. hard) visualization condition reported that the goal was significantly closer. When the goal was far, however, visualization did not influence perceptions.

Study 4 shows how visualization influences goal commitment. We find that when a goal was near, participants in the easy (vs. hard) visualization condition were more committed to achieving a goal of saving money for a vacation. Consistent with study 3, participants in the easy (vs. hard) visualization condition also felt that they were closer to their goal. When the goal was far visualization did not influence commitment or proximity perceptions.

These results suggest that goal visualization can influence athletic performance and also have significant implications for goal pursuit. Further research in this domain could focus on other related goal-following behaviors, such as persistence in

waiting for service as a function of whether the goal (of receiving service) is easy or difficult to visualize, and the satisfaction associated with such experiences.

Reinforcing “Shoulds”: The Effect of Mindsets on Sequential Choices

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Uzma Khan, Stanford University

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Imagine a consumer who is making a series of choices. First he decides to go to the gym and exercise. Later, as he is walking out of the gym, he is approached by a member of the local charity with a request for donation. Would making progress on his health goal and choosing to exercise make him more or less likely to donate? Recent research has observed two distinct patterns in sequential choices: reinforcement and balancing (e.g. Dhar et al. 2007). Reinforcement occurs when an initial choice strengthens commitment to the related goal, leading to a similar subsequent choice. Conversely, balancing occurs when an initial choice satisfies and hence inhibits the related goal, allowing for the pursuit of an alternate goal.

The present research proposes that reinforcement or balancing in sequential decisions can depend on how choices (and thus initial goal-progress) are interpreted. Specifically, we posit that an initial choice will lead to reinforcement (balancing) when the choices are interpreted at a higher (lower) level of abstraction. We build on the notion that seemingly different choices (e.g., exercising and charitable giving) may be viewed as related when interpreted at a higher level. Since choices interpreted at a higher level are also more likely to be seen in terms of their relationship to the higher order goals that define one’s self-concept (Trope and Liberman 2003), inconsistent choices would have the negative effect of highlighting a conflicting self image; thus we expect higher level processing to facilitate reinforcement across choices. By the same token, as lower level processing allows the choices to be viewed as unrelated, we predict lower level processing will facilitate balancing across decisions even when the choices are seen as relevant for self-image.

To test our propositions, we turn to abstract vs. concrete consumer mindsets, which have been shown to affect cognitive processes and systematically influence consumers’ interpretation of their choices. For example, prior research on sub-goals has demonstrated that in an abstract mindset actions are seen as indicating goal commitment whereas in concrete mindset actions are seen as indicating goal progress (Fishbach et al. 2006). Specific to the current research, an abstract mindset focuses attention on central, holistic features and higher-order goals whereas a concrete mindset facilitates lower-level representations and goals enriched with details (Trope and Liberman 2003). Building on this, we predict that an initial “should” choice will beget subsequent unrelated “should” choices when a consumer is in an abstract mindset. Conversely, an initial “should” choice will facilitate subsequently unrelated “want” choices when a consumer is in a concrete mindset. We explore this effect and its underlying mechanism in four experiments. In Experiment 1 for example we primed concrete vs. abstract mindsets by asking respectively participants “how” vs. “why” a certain task was performed (Freitas et al. 2004). Subsequently, we manipulated if an initial “should” choice was made by giving half of the participants a choice between two virtuous actions (e.g., cardiovascular activity vs. weight training at the gym). Finally, all participants were given a choice between working on an assignment (a “should”) or watching a favorite television show (a “want”). In line with our predictions, we find that initially choosing a “should” option in an abstract mindset increases the likelihood of subsequently choosing a “should” option (i.e., working on an assignment); whereas the opposite pattern holds in a concrete mindset. We replicate this pattern of results across different sets of initial “should” choices and “should” vs. “want” dependent measures, and the results consistently support the predicted interaction between mindsets and an initial “should” choice. Further, in support of our predicted process, we demonstrate that participants in an abstract mindset rated seemingly unrelated choices as more related compared to those in a concrete mindset. Lastly, by manipulating whether the initial “should” choice was attributable to external influences vs. internal motives, we demonstrate that people must be able to relate the initial choice to the self to obtain the predicted effect of mindsets. When the initial “should” choice is attributable to external influences, one’s mindset has no effect on subsequent choices.

We believe this research has important implications for accomplishing long term, self-improvement goals. Our work goes

beyond research on sub-goals (e.g., Fishbach et al. 2006), which looks at progress on the same goal. We focus on choices that are not directly related and hence provide insight into goals that require persistence on several dimensions that may not be seen in conflict when viewed at a lower level (e.g., maintaining good health and success in exams).

The Subjective Difficulty of Maintaining: Why People Think it is Harder to Maintain their Weight than to Lose a Couple of Pounds

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The goals literature posits that goal distance has a positive monotonic effect on subjective goal difficulty (controlling for self-efficacy; Locke & Latham 1990). This literature usually assumes a discrepancy between actual and desired states (e.g. Kruglanski 1996), but fails to acknowledge maintenance goals, i.e. goals in which actual and desired states coincide, but there is a time difference between the present and the goal time horizon. Exceptions are two studies within the regulatory fit framework, which show that matching attainment goals with promotion focus and maintenance goals with prevention focus positively impacts outcome (Brodscholl et al. 2007) and performance (Shah et al. 1998).

We take this research further and propose that contrary to the goal setting literature (Locke & Latham 1990), consumers perceive maintenance goals as more difficult than proximate attainment goals. Several lines of research are consistent with our contention. First, based on Heath et al. (1999), goals are reference points and people think that the same amount of progress gives more utility and leads to greater effort in the losses than in the gains domain. Maintenance goals actors are in the gains domain, but attainment goals actors are in the losses domain. People then could infer more effort for attainment than for maintenance goals and thus believe that attainment goals are more likely to be achieved. Second, actions interpreted as progress towards a goal make people balance across goals, but actions interpreted as commitment to a goal make people highlight achievement of that goal (Fishbach et al. 2006). People might feel that they have fully progressed towards a maintenance goal, but feel committed to a modest attainment goal, because with a little more effort they can achieve it. This would make people pursuing an attainment goal try harder than people pursuing a maintenance goal. If people have this lay theory, then subjective judgment of future success will be higher for attainment goals. Finally, Gilovich et al. (1993) find that short temporal distance from goal results generates more reasons for failure, but longer temporal distance results in generation of more reasons for success. If we extrapolate this result to goal distance, we would predict that people facing maintenance (attainment) goals would generate more reasons for failure (success). Therefore, when making a difficulty judgment, they will view maintenance goals as more difficult.

We offer the first test of our prediction that maintenance goals will be judged as more difficult and less likely to be achieved than modest attainment goals in an experiment in which participants had to judge the likelihood of achieving and the difficulty of either maintenance or attainment goals held by hypothetical actors. The data supports our prediction. Thus, for example, in separate between participants scenarios, people think that a woman who wants to at *least* maintain her 30 minutes average daily workout time has a more difficult goal, than a woman who wants to increase it to *at least* 35 minutes daily.

Our data also indicates that this effect is driven by how the two goal types are perceived. Specifically, we find that the effect of goal type on perceived difficulty of a specific goal given in a scenario, is mediated by how similar goals are perceived in general, but not by expected effort of the actor. Furthermore, when a reminder that the actor can do better or worse in the future accompanies the difficulty question, the effect is attenuated. This indicates that the differences in difficulty are driven by differences in the possible outcome range of attainment and maintenance goals. Currently we are analyzing data from a similar scenario based experiment to test the influence of success and failure reasons generation and of goal temporal horizon. We predict that the number of reasons will mediate the subjective difficulty effects.

New Perspectives in Brand Extension Research

Chair: Carlos Torelli, University of Minnesota

Discussion Leader: Barbara Loken, University of Minnesota

Symposium Overview

Brand extensions are aimed at leveraging the equity of a brand by penetrating a new market or product category while protecting its image from dilution effects. A number of factors affect whether consumers will evaluate brand extensions in a favorable manner without undesirable consequences. Some of these factors relate to the degree to which the brand extension fits with the parent brand whereas others have to do with personal characteristics of the consumer (e.g., Monga and John 2007). Contextual factors of the consumer situation can also have an impact on the favorability of extension evaluations. This symposium unites under a common theme of providing new insights on the dynamic processes underlying the evaluation of a brand extension and the consequences for the image of the parent brand.

The first paper by Ahluwalia examines how consumers' self-construal can interact with the level of perceived risk in the marketplace and affect the stretchability (extension) potential of a brand. Consumers who are high in interdependence are more flexible in the consideration of inputs for evaluating brand extensions than those low in interdependence. In consumer contexts where market risk is high, consumers high in interdependence evaluate farther stretches from reputable brands more favorably than their low interdependence counterparts. In contrast, in low risk markets, the stretchability advantage among high interdependents is attenuated, and even reversed.

The second paper by Heath et al. studies the effect of upward and downward stretches (in terms of quality) on the consumer's overall evaluation of the parent brand name including all members of the brand family. Across various experiments, a brand-quality asymmetry emerges on measures of brand perception, attitude, and choice: Offering higher-quality versions helps brands more than offering lower-quality versions hurt. Results suggest that the asymmetry arises partially from opponent processes involved when brands offer lower-quality versions (e.g., positive returns to offering greater variety), and partially from consumer tendencies to see lower-quality versions as less relevant to brand evaluation than higher-quality versions.

The third paper by Torelli and Ahluwalia focuses on the role of cultural brand associations on extension evaluations. Brands and products can have cultural meanings and can serve as symbols of a cultural group. Findings from two experiments suggest that the congruity (incongruity) between the cultural symbolism of a brand and that of the product extension can render a brand more (less) stretchable. This effect may occur in spite of perceptions of misfit (fit) between the brand and the product extension, particularly when participants' motivation to elaborate about the information is low. The final paper by Cheng, White, and Chaplin examines the effect of strong self-brand connections (SBC) on brand dilution effect. Results from 4 studies suggest that when consumers make a SBC, brand-evaluation becomes an important component of self-evaluation. Consequently, consumers with high SBC maintain favorable parent brand evaluation despite of a poor brand extension in order to maintain a positive self-evaluation.

The antecedents and consequences of brand extension evaluations uncovered in this session inform consumer researchers about the dynamic processes underlying the evaluation of a brand extension and about the consequences for the image of the parent brand. This session should appeal specifically to scholars interested in the effects of branding and brand name extensions, and more generally to those interested in the psychological processes underlying product evaluation. Barbara Loken, an expert in brand extension research, will integrate the implications of the four streams of research and provide a roadmap for future research in the area.

To Stretch or Not to Stretch: The Role of Market Risk and Self-Construal in Brand Stretches

Rohini Ahluwalia, University of Minnesota*

The high level of growth in brand extensions highlights the importance of identifying factors that influence the "stretchability" or extension potential of a brand into new markets. Some recent examples of extensions include products ranging from Jeep strollers, Olay vitamins, Hooters airlines to Cheetos lip balm. The current research attempts to understand how the level of risk in the marketplace influences the stretchability of a brand. Most of the past research has

focused on the stretchability of a brand in low risk markets; little however, is known about whether and when a brand would benefit from leveraging its equity in higher risk markets (e.g., truly innovative products which may be perceived as risky, foreign markets which have higher levels of market risk).

One important variable that has the potential to influence a brand's extendability is the self-construal of the consumer (e.g., Ahluwalia 2008; Ng and Houston 2006; Monga and John 2007). Self-construal refers to one's view of self and structure of self-schema (Cross, Morris and Gore 2002; Lee, Aaker and Gardner 2000; Markus and Kitayama 1991). People who have an independent self-construal are expected to hold a view of self that emphasizes the separateness, internal attributes, and uniqueness of individuals, while an interdependent self-construal is associated with a more relationship-driven interdependent self view which stresses connectedness, social context, and relationships (Markus and Kitayama 1991). Consumers who are interdependent are known to engage in a holistic style of processing, directing attention to the context or field when processing and evaluating a stimulus; however, people with a more independent self-construal tend to de-contextualize the object from its field and attempt to process it analytically, trying to establish its category membership. It is, therefore, argued that highly interdependent consumers are likely to exhibit flexibility in the consideration of inputs for evaluating brand extensions, whereas their less interdependent counterparts are expected to consistently focus on the notion of fit. It is hypothesized that the flexible high interdependents are likely to focus on the fit of brand extension under low risk conditions, switching to the brand reputation as an input in high risk markets (where it tends to be more diagnostic). The low interdependents, however, are likely to exhibit a focus on the perceived fit of the extension, irrespective of the risk level in the marketplace. As a consequence, high interdependents are likely to offer the brand a significantly higher stretch potential as compared to their low interdependence counterparts in the high risk markets; however, this advantage is attenuated and even reversed under some situations in the low risk markets. These predictions are tested in a series of three completed studies.

Experiment 1 manipulates the level of market risk, and measures the participant's self-construal via the Singelis scale (1994) (median split). Participants were exposed to a new product which was either presented as a far extension of a reputable brand or as a product introduction under a new/unknown brand. Under high risk conditions, the high interdependence participants evaluated the product more favorably when it was presented as a brand extension versus under an unknown brand name; however, the low interdependence participants did not exhibit any advantage of a reputable parent brand – their evaluation of the far extension was similar to the unknown brand in both the high and low market risk conditions. More importantly, the low interdependents evaluated the brand extension more favorably in the low versus high risk condition; in contrast, the high interdependents evaluated the extension more favorably in the high (vs. low) risk conditions, exhibiting brand dilution in the low risk conditions.

Experiment 2 attempted to understand the process underlying these effects. Self-construal was primed and the brand reputation was manipulated (strong versus weak reputation, using the context of a fictitious brand). Only the high risk condition was included in this experiment, since the process underlying this condition needed further examination. Findings revealed that subjects primed with interdependence exhibited significantly higher evaluations of and purchase intentions for a brand stretch from a strong versus weak reputation brand; however, no differences in these measures emerged among the independence-primed participants in the two reputation conditions. Analysis of the cognitive responses suggested that under high risk conditions, interdependents were likely to focus on the reputation of the brand in forming their evaluations of the extension whereas the independents were more likely to elaborate on the fit of the extension.

Experiment 3 tested the theoretical framework in a cross-national context – where market risk and interdependence were assessed at a cross-national level. Data from three countries was collected (Italy – high interdependence low market risk; India – high interdependence high market risk; United States – low interdependence and low market risk). The findings are supportive of the pattern of data obtained in the first two studies and increase confidence in the generalizability of these findings.

The Asymmetric Effects of Extending Brand Names to Lower and Higher Quality

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Devon DelVecchio, Miami University, Ohio

Michael McCarthy, Miami University, Ohio

Subimal Chatterjee, Binghamton University

Despite threats of image dilution, sellers commonly extend brand names to lower quality (Charmin Basic, Levi Strauss Signature, BMW 1-Series, etc.). To assess potential outcomes of such strategies as well as underlying processes, this study tests the effects on overall brand evaluation of middle-quality brands also offering versions of either lower or higher quality.

Experiments 1 and 2. An exploratory choice experiment comparing control conditions within two product classes (target brands offering a single middle-quality product) with experimental conditions (target brands also offering a lower-quality or higher-quality version) found no effect of offering lower-quality versions. However, offering a higher-quality version bolstered choice of the middle-quality offering in one of the two product classes tested. A small follow-up experiment extended this by having participants rate the brands on various perceptual dimensions. Consistent with the choice results, higher-quality versions improved perceptions of brand knowledge and perceived marketplace respect, whereas lower-quality versions failed to have an effect.

These opening experiments implicate opponent processes in the context of lower-quality versions. Whereas quality-association effects should be negative due to brand associations with lower quality, variety effects should be positive because additional offerings signal greater knowledge of production processes (expertise), increased ability to produce and market a range of products, greater sensitivity to diverse consumer tastes, etc. These potential positive effects may then temper the negative effects of brands offering lower-quality versions (although both effects should be positive in case of high-quality versions).

Experiment 3. This experiment was conducted to replicate the brand-quality asymmetry with better measures of underlying processes. A 7 (brand-quality levels: control plus six experimental conditions) by 2 (product-class: pasta sauce, portable CD players) by 2 (name: Formaggio's or Giovanni's pasta sauce, Acoustix or Earshot CD players) between-subjects design was used. In addition to the control condition that included only the flagship product (e.g., Giovanni's pasta sauce), the six experimental conditions added (1) a brand version one level up in quality (Giovanni's Tuscano), (2) one two levels up in quality, (3) versions at both one and two levels up in quality, (4) a brand version one level down in quality (Giovanni's Basiqué), (5) one two levels down in quality, and (6) versions at both one and two levels down in quality. Participants imagined living abroad where they were venturing into an early shopping experience there. They viewed a table of brands listed by brand name, price, and average quality rating ostensibly from a survey of the retailer's customers, and then rated the target brand on three items per each of the following: brand attitude, prestige, innovativeness, and ability.

Results replicated the brand-quality asymmetry. Whereas higher-quality versions significantly improved brand attitudes as well as perceived brand prestige, innovativeness, and ability, lower-quality versions had (1) null effects on brand attitude, (2) smaller negative effects on perceived brand prestige, (3) smaller positive effects on perceived brand innovativeness, and (4) null effects on perceived brand ability. Consistent with the opponent-process model, lower-quality versions reduced perceived brand prestige but increased perceived brand innovativeness. The opponent-process model was also supported by the fact that statistically controlling for perceived innovativeness eliminated the asymmetric effects of higher-quality and lower-quality versions on brand attitude.

Although the prior experiments implicate a robust brand-quality asymmetry, experiment 4 proposes and tests a process in addition to opponent processes: Consumers may "discount" or under-weight lower-quality versions when judging brands. Even if a flagship brand adds lower-quality versions, the brand continues to offer the same quality offerings as before, thereby suggesting no change in the brand's ability to design, produce, and market quality products, and no change in the brand's commitment to offering quality products. However, when brands offer higher-quality versions, these versions signal the needed greater skill to market such products, as well as commitment to offering high-quality products.

Experiment 4. This experiment replicated Experiment 3's procedures using only a single additional higher-quality or

lower-quality version to simplify. To enhance generalizability, Experiment 4 used different product classes (restaurants and beers) plus both real and fictitious brands (Metro was the new (fictitious) target brand in both product categories, and real target brands were Ruby Tuesday in restaurants and Fosters in beers). Experiment 4 supplemented Experiment 3's measures with questions assessing how much weight participants in experimental conditions accorded the flagship brand version when evaluating brand liking, prestige, expertise, and innovativeness (constant-sum to 100).

The brand-quality asymmetry again arose across multiple measures as well as within both real and fictitious brands (although effects were weaker within real brands, they remained statistically significant). Unlike Experiment 3, however, none of the perceptual measures could statistically account for the asymmetry in brand attitudes. Nonetheless, consistent with an opponent-process account, lower-quality versions reduced perceived brand prestige significantly. Whereas higher-quality versions consistently improved brand perception and evaluation, lower-quality versions failed to change brand attitudes, perceived brand innovativeness, or perceived brand expertise.

Regardless of the dimension being judged, consumers reported giving greater weight to higher-quality versions than to lower-quality versions. Higher-quality versions were also weighted as much or more than flagship versions, whereas lower-quality versions were consistently rated less than flagship versions. It appears that consumers do, in fact, consider lower-quality versions less relevant to brand evaluation than flagship and higher-quality versions.

In summary, four experiments find that higher-quality brand versions boost brand image and evaluation more than lower-quality brand versions damage them. This brand-quality asymmetry emerges in part from lower-quality versions stimulating both negative and positive effects that then partially cancel out one another, and in part from consumers seeing lower-quality versions as less relevant to brand evaluation than higher-quality brand versions. It appears that offering higher-quality versions has multiple positive effects, whereas offering lower-quality versions has a mix of positive, negative, and null effects that fail to threaten brand image as much as negative quality-associations alone might otherwise suggest.

Cultural Symbolism of Brands: Effects on the Evaluation of Brand Extensions

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Rohini Ahluwalia, University of Minnesota

Consumers assess the ability of a brand extension to deliver desired benefits by making inferences from relevant brand-specific associations. These relevant brand-specific attributes or benefits get transferred to the brand extension leading to a favorable evaluation of the new product (Broniarczyk and Alba 1994). Perception of fit between the attributes associated with the parent brand and those needed to deliver on the promise of the extension becomes the key driver of the more favorable extension evaluation (see Keller 2002). In this research, we extend past findings by studying the effect of cultural brand associations on extension evaluations. Our findings show that the cultural symbolism of brands can have a positive or negative effect, depending on the context, on the evaluation of a brand extension and that this effect is not always mediated by perceived fit.

People buy products not only for what they do, but also for what the product means; thus brands can be symbols that become part of the individual identities of consumers (Levy 1959). Since individuals have both a personal and a group identity (Tajfel and Turner 2001), attachment to brands and products reflect consumers' desires to reinforce either type of identity depending on the product and the context (Kleine, Klein and Allen 1995; Swaminathan, Page, and Gurhan-Canli 2007). Iconic brands that symbolize the abstract values that are important for the members of a cultural group are particularly useful for distinctively signaling a desirable group identity (Holt 2004). These brands reach an iconic status thanks to an implicit shared understanding among members of the culture about the extent to which the brand symbolizes abstract group characteristics (see Sperber 1996). Cultural symbolism is not only a characteristic of brands and can also extend to entire product categories strongly associated with a particular cultural group (e.g., hedonic products associated with French culture, Leclerc et al. 1994).

Cultural meanings of brands and products may be used by consumers when evaluating a brand extension. Cultural congruity (incongruity) between a brand and a product extension should lead to favorable (unfavorable) evaluations of a brand extension. Furthermore, since cultural associations are secondary associations that may be unrelated to specific

brand attributes and benefits (Maheswaran 1994), their effects on evaluations may not be mediated by measures of fit. In other words, consumers may perceive the misfit (fit) between specific brand attributes and those needed to deliver on the promise of the extension and still evaluate positively (negatively) the extension thanks to its cultural congruity (incongruity). We conducted two studies to test these hypotheses and to explore underlying processes.

In study 1, we simultaneously varied the level of cultural congruity (for European American participants) between familiar parent brands and product extensions, and the level of fit between specific brand attributes and those needed to deliver on the promise of the extension in a 3 level of cultural congruity (congruent/incongruent/neutral) X 2 level of fit (high/low) within-subjects design. An example of a culturally-congruent – low-fit brand extension is Nike soda (both Nike and sodas are American symbols), whereas that of a culturally-incongruent – high-fit brand extension is Budweiser tequila (Budweiser is an American icon and Tequila is a foreign icon). Thirty-three European American participants evaluated the 6 extensions and rated them in terms of fit. Results showed that, for similar levels of fit, culturally-congruent extensions were evaluated more positively than culturally-incongruent ones. In addition, the slope of the linear relationship between extension evaluation and fit was steeper in the neutral condition compared to the cultural-congruent and the cultural-incongruent conditions. This later finding suggests that fit was a weaker predictor of extension evaluation when cultural symbolism was salient.

Study 2 was designed to replicate the findings from study 1 and to further study the underlying process. To assess the extent to which participants incorporate the cultural congruity (incongruity) information in their perceptions of fit when making brand extension evaluations, we included an additional condition in which participants were induced to engage in high-elaboration before making their judgments. Results in the low-elaboration condition replicated the findings of study 1. In contrast, in the high-elaboration condition there was no effect of the cultural congruity manipulation and only fit predicted extension evaluations. This later finding suggests that, under high elaboration, participants incorporated the cultural congruity information in their judgments of fit for making their evaluations.

Findings in this research extend our understanding of the effect of brand associations on extension evaluations and show the importance of the cultural symbolism of a brand when making brand extension decisions. The congruity (incongruity) between the cultural symbolism of a brand and that of the product extension can render a brand more (less) stretchable. This effect may occur in spite of perceptions of misfit (fit) between the brand and the product extension when participants' motivation to elaborate about the information is low.

Self-Brand Connections, Poor Brand Extensions, and Favorable Parent Brand Evaluations

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This research investigates the role that self-brand connection (SBC) plays in moderating brand dilution effects. To date, the brand extension literature has examined the process through which brand extension performance can affect evaluations of the parent brand in a positive (i.e., parent brand enhancement) versus negative (i.e., parent brand dilution) manner. A key finding is that the effect of extension performance on parent brand evaluations depends upon the perceived typicality of the extension. Negative extension performance leads to brand dilution for typical, but not atypical brand extensions (Loken and John 1993). Our research investigates how this process could be affected by consumers' existing SBC.

We argue that when consumers make a SBC, brand evaluation becomes an important component of self-evaluation. An impressive body of research demonstrates that individuals use brands to create and communicate their self-concepts (e.g., Belk 1988; Fournier 1998). Consumers can appropriate associations belonging to brands, such as user characteristics or personality traits, and incorporate them into their self-concepts, thereby forming self-brand connections (SBC; Escalas and Bettman 2003). Therefore, for consumers with high SBC, their self-concepts are closely linked to the brand, and brand evaluation has implications on their self-evaluation. If the brand launches a brand extension that performs poorly, it represents a self-threat to consumers who feel connected to the brand.

We also know from the psychology literature that individuals are motivated to maintain positive self-evaluation (Tesser 2000; Brown, Collins and Schmidt 1988). In order to cope with the threat to the self, it is likely that consumers with high

(vs. low SBC) would evaluate the brand favorably, hence are more resistant to brand dilution. Also, because typical brand extension is more indicative of the brand's performance, the effect of SBC on parent brand evaluation will be stronger if the poor brand extension is typical (vs. atypical) to the brand's current offering.

Across four studies, we find empirical support of the positive relationship between SBC and brand evaluation following a negative brand extension.

In study 1, we manipulated brand extension performance and found the predicted SBC effect. Following brand failure (i.e., a brand extension rated "D"), participants with higher SBC evaluated the brand more favorably, although level of SBC did not predict brand evaluation when the brand performs fairly (i.e., the brand extension rated "B-").

In study 2, we examined the typicality effect in a 2 (Performance information: negative vs. unavailable) x 2 (Typicality: high vs. low) design. Results showed that participants with higher SBC evaluated the brand more favorably after seeing a negative brand extension. Moreover, the positive effect of SBC on parent brand evaluation is moderated by extension typicality. Because a brand extension with high (vs. low) typicality is supposed to be more indicative of the brand's performance, its poor performance would be more threatening to participants who feel connected to the brand. Consistent to the proposed self-threat explanation, the SBC effect on parent brand evaluation is stronger when the brand extension is typical than atypical. As expected, SBC and typicality did not affect parent brand evaluation when extension performance information is unavailable.

Studies 3 and 4 demonstrate that the SBC effect is attenuated if consumers have the opportunity to self-affirm, thereby providing direct evidence of self-threat as an explanation of the SBC effect on brand evaluation following negative brand extension. In study 3 we test whether self-affirmation attenuates the effects shown in study 1 in simple 2-group (Self Affirmation Task: Present vs. Absent) design. Our results show that the otherwise positive influence of high SBC on parent brand evaluations was indeed eliminated when participants were given the opportunity to self-affirm in another domain. After completing a task in which participants described the values that are most important to them, high SBC participants evaluated the parent brand less favorably than high SBC participants who do not self-affirm, and equally favorable as those low in SBC. Study 4 further explores the proposed mechanism and rule out important alternative explanations for the SBC effect. We directly measured negative feelings in response to negative brand extension performance and show that high SBC consumers report significantly more negative feelings vs. low SBC consumers. However, as expected, this difference is attenuated when high SBC participants are able to self-affirm in another domain. Taken together, these results provide mounting evidence in support of our account of when and why SBC affects parent brand evaluation. In so doing, we augment existing literature on the influence of SBC as well as research in the brand extensions literature, which has not examined the influence of SBC on parent brand dilution.

Breaking Down Decisions: Neural and Perceptual Research in Consumer Psychology

Chair: Ab Litt, Stanford University

Discussion Leader: Piotr Winkielman, University of California, San Diego

The Neural Network Underlying Appetitive and Aversive Decision Value Computations

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An essential part of goal-directed choice is the assignment of decision values (DV) to different appetitive and/or aversive options under consideration at the time of decision-making. Although dissociations between appetitive and aversive components of value signals have been shown in other domains (e.g., outcome valuation), it is not known if the brain uses a common system to assign DVs in appetitive and aversive situations, or separate ones.

A-priori, there are good behavioral and neuroscientific reasons to take seriously the hypothesis that there might be two decision valuation systems, one for appetitive decisions, and one for aversive ones. First, neural dissociations between appetitive and aversive value signals have been found in the computation of other decision-related signals such as “outcome values”, “anticipatory values”, and “prediction errors” (Rangel et al., 2008). Second, given that neurons have a limited dynamic range, their ability to make fine distinctions between the values of stimuli would be enhanced if there were dedicated systems for appetitive and aversive valuation (Bayer & Glimcher, 2005). Finally, a sizable amount of behavioral evidence in economics and psychology suggests that the valuation functions in the appetitive domain (gains) have different properties from those in the aversive domain (losses) (Kahneman & Tversky, 1979).

In two studies we used human fMRI to look for areas that might encode appetitive and aversive decision values. In the first study we investigated the neural basis of appetitive DV computations by scanning hungry subjects' brains while they placed bids for the right to eat different junk foods in a Becker-DeGroot-Marshak auction (Becker, DeGroot, and Marschak, 1964). Because of the characteristics of this auction, individuals always bid their ‘true’ DV for the object (Wertenbroch and Skierra, 2002) and thus we obtained a trial-by-trial measure of appetitive DV computed by the brain for every bidder and item at the time of decision-making, which we compared with the BOLD measure of neural activity. Subjects were asked to place bids in two different conditions: free bidding trials and forced bidding trials. In free bidding trials they chose how much to bid. In forced bidding trials they were told how much to bid. Both types of trials were otherwise identical. Each item received one bid of each kind. The only difference between both types of trials is that the subject needs to perform an appetitive DV computation in the free trials, since she needs to decide how much to bid, but not in the forced trials, since she is told what her bid should be. Every other computation, such as the anticipated taste of the food, should be carried out equally in both types of trials. As a result, we can conclude that a brain area encodes positive DV computations whenever its activity increases with the DV in the free trials, but not in the forced trials. As predicted by our a-priori hypothesis, we found that activity changes within the medial OFC were modulated by the subject's DV in free as compared to forced bid trials. Unexpectedly, we also found right dorsolateral prefrontal cortex (DLPFC) involved in this computation. We thus concluded that activity in the medial OFC and DLPFC correlates positively with appetitive DV computations in everyday purchasing decisions.

The second study employed a similar design to investigate the neural basis of aversive DV computations. We scanned sated subjects' brains (N=19) using fMRI while they repeatedly placed real bids for the right to avoid eating different disliked foods (e.g. baby foods, canned meat) in a Becker-DeGroot-Marshak (BDM) auction. This study also employed free bid and forced bid trials, to distinguish areas encoding decision values from those encoding other computations (e.g., anticipatory disgust). We observed activity in the mOFC, rDLPFC, and parts of posterior insula parametrically correlated with a trial-by-trial measure of aversive DV. Importantly, the nature of this encoding entailed a negative correlation between neural activity and decision values: the more disliked the item, the lower the recorded BOLD signal.

Taking together the results of both studies, we are able to compare whether aversive decision values are encoded by common or distinct areas as compared to appetitive values. We found a remarkable degree of overlap between the areas encoding for appetitive and aversive decision values: activity in the bilateral mOFC and the right DLPFC correlated

positively with appetitive decision values in the first study, and negatively with aversive decision values in the second study. These results provide neuroscientific evidence for a single decision valuation system that applies both to appetitive stimuli (such as financial gains, liked foods and mates) AND aversive stimuli (such as financial losses, undesirable foods, and dangers).

Part of the research agenda in decision neuroscience is to understand how the brain evaluates potential goals and outcomes at the time of decision-making, and how other cognitive, emotional, and visceral processes affect the computation of decision utility. A necessary first step is to understand the brain structures involved in the computation of appetitive and aversive (decision) utility in simple everyday purchasing decisions. Our results suggest that the medial OFC and DLPFC are areas where a variety of computations carried out in other brain regions are integrated into a single representation of utility. This hypothesis implies that other brain processes may influence decision-making by modulating activity in the medial OFC and DLPFC.

Our results have additional implications for decision-making disorders and transformative consumer research. Addiction and compulsive gambling, eating, or purchasing behavior can be characterized as diseases in which the brain miscalculates DV signals of drugs, gambles, food and goods. Given our findings, these diseases might act through brain mechanisms modulating activity within mOFC and DLPFC (further preliminary evidence for this hypothesis comes from Goldstein et al., 2007 and Volkow et al., 2006).

Neural Dissociation of Valuation and Motivational Signals at the Time of Decision Making

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Many common consumer decisions involve considerations of value, to determine the type or nature of appropriate response; and motivational salience, influencing strength of engagement in both decision context and response implementation. Mounting research indicates important ways in which valuation and motivational components of decisions are dissociable in terms of underlying psychological processes and behavioral outcomes (e.g., Higgins, 2006). While conceptualizations of this disjunction vary—from “hedonic states” versus “hedonic stakes” (Lyubomirsky & Ross, 1999) to wanting versus liking (Winkielman & Berridge, 2003)—the notion that valuation and motivation may act in different ways and through distinct means seems of express importance to understanding the bases of consumer decision making.

Neuroscientific investigations of motivation and valuation have proven very effective in establishing the extent and limits of disjunctions between these psychological constructs, by revealing how their respective biological substrates differ, overlap, and interact (Berridge, 1996; Zink et al., 2004). This in turn sheds light on the basic psychological mechanisms influencing observed patterns of overt behavior. We conducted an fMRI study that explores dissociations in humans between specific valuation and motivational processes active and involved at the time of decision making, using an explicit and clear conceptualization of such a disjunction.

Task: During scanning, subjects (N=20) made a series of 240 choices involving different appetitive and aversive foods (60 distinct items, randomized and repeated once per session, for two sessions). Subjects were instructed, for each trial, to indicate (within a 2s interval) their willingness to eat the displayed food-item at the end of the experiment, using one of four response keys: “Strong No”, “No”, “Yes”, or “Strong Yes”. Subjects were told that at the end of the experiment, a random trial would be selected: they would actually receive that trial’s food item to eat if they responded “Yes” or “Strong Yes” on the trial, but would not if they responded “No” or “Strong No”. It was reiterated to subjects that “the response you gave on that [randomly chosen] trial will determine whether or not you will be asked to eat that food item at the end of the experiment.” Thus, subjects faced response decisions involving valuations of food items under motivation to respond accurately in line with those valuations. Subjects were asked not to eat immediately prior to the experiment, and were pre-screened for at least occasionally eating the food stimuli generally classifiable as appealing (snack foods, chocolate, etc.).

Analysis: Valuation was captured by observing the specific response given on any trial, and taken to be increasing from “Strong No” to “No” to “Yes” to “Strong Yes”. In contrast, we conceptualized motivation as the cross-valence strength of the response given on a trial: i.e., “Strong” responses were considered to be of greater motivational engagement than non-“Strong” responses. We thus coded the four possible trial responses as RESP {“Strong No” = -2, “No” = -1, “Yes” = +1, “Strong Yes” = +2}, and included RESP (valuation) and |RESP| (motivation) as modulators of food item presentation in the AR(1) GLM estimated to analyze trial events in the experiment. Single-subject and group-level contrasts were calculated to determine brain regions in which activation during decision trials was 1) modulated by valuation, but not motivation; 2) modulated by motivation, but not valuation; and 3) modulated by both motivation and valuation.

Behavioral Results: In line with our conceptualization of motivation as response strength, subjects responded significantly faster for Strong Yes/No than non-strong Yes/No ($t(77) = 4.22, p < .00005$, computed across subjects using means pooled within-subject). Additionally, subjects’ responses were correlated to a pre-scanning task in which they rated their overall liking of each food item used in the experiment, in order to test whether scanning-trial responses accurately matched valuations in both valence and intensity/strength. This correlation yielded $R^2 = .9514$, supporting this contention.

Neural Results: Increased activity modulated by valuation was observed bilaterally in medial orbitofrontal and rostral anterior cingulate cortices, consistent with a wide range of findings in the cognitive neuroscience of decision making (e.g., Rangel, Camerer, & Montague, 2008). Activity observed in dorsal posterior cingulate is consistent with work on reward-related signals in monkeys (McCoy et al., 2003). Additional valuation-modulated activity in precuneus and parahippocampal gyrus may be related to memory retrieval-related functionality previously observed for each of these regions: foods valued more highly by subjects are likely to be more familiar than the foods chosen to be generally unappealing (e.g., squash baby food, clam juice).

Increased activity modulated by motivational salience was observed bilaterally in posterior insula, dorsal anterior cingulate, supplementary motor areas, and primary motor cortex. This network of brain regions suggests several important conclusions regarding how motivational salience is represented in the brain and directs overt behavior. Insula activity correlated with cross-valence motivational salience is in contrast to a preponderance of work showing insula encoding primarily negative responses, such as disgust. These previous findings might be re-interpreted as indicative of the relatively greater motivational salience of those strong negative feelings, in a manner analogous to what has been argued for the amygdala (Anderson et al., 2003). In line with findings showing addiction and craving disruption with insula damage (Naqvi, Rudrauf, Damasio, & Bechara, 2007), our findings suggest that increased (cross-valence) motivation engages the insula, and that this representation of a high motivational state activates the planning and selection of an appropriate response action in dorsal anterior cingulate and downstream motor regions (similar to an account of ADHD by Bush et al., 1999).

Finally, different sub-regions of the nucleus accumbens (NAcc) were either distinctly or overlappingly modulated by valuation and motivation. This suggests a potential resolution to an ongoing debate over whether activity in NAcc is involved in encoding actual levels of reward or valuation, or rather representations related to the incentive salience or behavioral relevance of stimuli (Rodriguez, Aron, & Poldrack, 2006). Our results suggest that these divergent functionalities may be implemented in distinct but partially overlapping sub-regions of NAcc. Thus, consumer decision making seems grounded in dissociable but not disjoint sub-systems computing choice value and motivational salience.

Speed and Accuracy in Value-Based Decision Making: An Eye-Tracking Study

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Recently, theoretical models from economics have been combined with experimental findings and techniques from psychology and neurobiology to better understand the computational processes used to make value-based choices. Value-based decision making (VBDM) entails making a choice among options carrying subjective values dependent on the decision-maker (Rangel, Camerer, & Montague, 2008). Existing discussions of VBDM are based largely on the

perceptual decision-making literature, which introduced a class of integrator/race-to-barrier models grounded in specific plausible underlying neural processes (e.g., see Gold & Shadlen, 2007). These models belong to the sequential-sampling framework, which allows for multiple pieces of evidence to accumulate over time (Gold & Shadlen, 2007) and describes both speed and accuracy of performance (Ratcliff & Smith, 2004).

One of these models, the Wiener diffusion model, has been found to account for data better than others (Ratcliff & Smith, 2004). It belongs to the random-walk class of models, and further to the group of diffusion processes, which accumulate noisy information continuously over time until one of two decision boundaries is reached. While there is a central speed-accuracy tradeoff inherent in these models, it has not been determined whether the implications of this tradeoff map coherently onto concomitant aspects value-based choice behavior. In the current work, we assess the speed and accuracy of VBDM by utilizing a 2-alternative-forced-choice (2AFC) task, varying subjective-value differentials and speed/accuracy decision goals, to test whether standard diffusion models can account for the range of observed results. Given the centrality of precise point-of-decision timing to testing the validity of the diffusion models for explaining VBDM, the primary experimental measure was saccade-indicated choices recorded via eye-tracking. Using such perceptual measures of decision making is of great utility for not only testing existing perceptual-based models, but for exploring the temporal limits of accurate value-based decision making. Such ‘blink’-like responses are of growing interest to marketers and others investigating common consumer behaviors. Moreover, measurements at this level are closer in temporal resolution to phasic activity observed in neuroimaging experiments arguing for specific brain processes underlying decision making.

Method: Two experiments were conducted using an identical procedure (detailed below) with one difference: in Study 1, participants were instructed to make choices as *fast* as possible, whereas in Study 2 they were instructed to be as *accurate* as possible, by making choices only once they were sure about their preferred option.

A 1-hour experimental session consisted of a liking-rating task, the saccadic 2AFC task, and debriefing. In the liking-rating task, participants (instructed to not eat for 3 hours prior to the experiment) were shown high-resolution images of different snack food items, one at a time, and asked to rate how much they would like to eat each item at the end of the study on a 5-point semantic-differential scale. These ratings served as indicators of participants’ subjective values for each food item. In the saccadic 2AFC task, two different food items were simultaneously flashed on the screen, one appearing on the right and the other on the left side of the screen. The two food items in each trial were chosen, using the liking ratings, so as to map to different subjective values. Thus, decision difficulty was manipulated between trials: some featured two items of liked similarly (hard choice), whereas others used a highly preferred and minimally preferred item (easy choice).

Following image presentation, subjects were instructed *to make a saccade as fast as possible* (Study 1) or *to make a saccade once they were sure which item they preferred* (Study 2). They indicated decisions by looking to the side of the screen where the preferred food item appeared (left or right). Responses were recorded from the right eye at 1000 Hz using Eyelink 1000 eye-tracker (SR Research, Osgoode, Canada). Saccadic reaction time, here representing decision-making time, was determined as the time difference between the onset of the images and saccade initiation. Participants were also informed that one of the trials would be randomly chosen at the end of the study and that they will be asked to eat the item they looked at (chose) during that trial. Thus, subjects had an incentive to choose the preferred item on each trial. During debriefing, participants selected a random trial number and were asked to eat the food they chose on that particular trial.

Results: Across both experiments, the saccade-RT results indicate that highly accurate value-based decisions can be made extremely quickly (under 1s), supporting the growing body of evidence attesting to the validity of snap-response decisions. For Experiment 1, emphasizing decision speed, although food stimuli were flashed only briefly on the screen and participants were required to process the two images, compare them, and make a decision, participants were successful in choosing preferred item on 75.0% of trials. Mean accuracy was 88.1% for maximally different values (most liked item vs. most disliked item presentations). Mean response time across subjects was 425 ms, and 402 ms for trials with maximally different values.

The results of Experiment 2, emphasizing decision accuracy, indicate an average accuracy increase across all subjects to 85.7%, from 75.0% in the speed-emphasizing condition (and to 95.6% from 88.1%, for maximally different values). The

mean response time across all participants was 582 ms, as compared to 425 ms for the speed-emphasizing condition, while mean RT for trials with maximally different values was 518 ms.

An important consequence of these results is that, while the standard diffusion models account well for results in the accuracy-emphasizing condition, this is not true for the speed-emphasizing condition. A new version of the model, with different propositions regarding underlying neural processes and computations, is required to account for these latter psychometric data. We are currently developing and assessing such a model.

These results are of broad interest for consumer research. Typical shopping experiences walking down store aisles involve exposure to many different products (choice options) and often making multiple choices, some extremely fast and 'spur-of-the-moment'. While some decisions may be based on the prior knowledge (e.g., brand-loyal purchases), others depend on value-based computations carried out at the time of purchase-decision. Understanding fast VBDM and moderating factors, both internal and external to the individual, may both inform consumers of effective decision-making strategies, and provide marketers with insights into how to more efficiently design choice environments.

When the Going gets Tough: Towards Understanding some Positive Effects of Metacognitive Difficulty

Chair: Sara Kim, University of Chicago

Discussion Leader: Aparna Labroo, University of Chicago

Symposium Overview

Ample research establishes that feelings serve as information about preferences. An important source of feelings is the subjective characteristics of a stimulus itself (Schwarz 2004). Research argues that subjective ease of processing a stimulus is beneficial and increases liking towards the stimulus (Berlyne, 1966; Bornstien, 1989; Zajonc, 1968). This is because people implicitly associate ease with familiarity and personal relevance. Consequently, subjectively easy (vs. difficult) to process stimuli are also evaluated as more familiar and self-relevant and are preferred. However, is it possible that metacognitive difficulty might sometimes be beneficial?

For example, is it possible that if you are pursuing a goal, might feelings of metacognitive difficulty make you infer that a means to fulfill that goal is more instrumental? After all, when you are pursuing a goal, you usually invest most effort in whichever means you infer is most instrumental towards achieving that goal, so is it possible that when pursuing a goal you also mistakenly make the reverse inference, making a means associated with subjective difficulty seem more instrumental? Or, celebrating a special occasion, might feelings of difficulty in coming up with the name of the chosen restaurant make it seem more exclusive? Or, after struggling through a students' hard to read assignment employing small font might you find the next one so much more lucid but actually only its font is larger? And, does it matter whether you are making inferences about the self or the other? After all, people know themselves better than they know others, and so it is reasonable that feelings of ease might bias judgments pertaining to the self more than those pertaining to others. In such situations, might metacognitive difficulty in making judgments about the self move people away from reliance on subjective feelings and towards considering content of information? These are some questions we investigate in this session.

In contrast to existing research arguing for a positive effect of ease of processing on evaluation, in this session we discuss three situations -- when the target is a means to fulfill an accessible goal (paper 1), when the target is a special occasion product (paper 2), and when the target follows a difficult to process prime (paper 3), when metacognitive difficulty can exert a positive influence on evaluations. Finally, we consider how metacognitive difficulty might de-bias judgments of the self by making people rely more on content of information (paper 4).

Paper 1 by Labroo and Kim argues that when a target product is a means to attain an accessible goal, people employ an "Instrumentality heuristic." Usually, people investing effort to pursue goals use those means that are most instrumental in accomplishing their goals, and when assessing the value of the target in fulfilling an accessible goal they also reverse this correlation inferring that effort signals instrumentality. Thus, subjective difficulty increases evaluation of an object that is a means to fulfill an accessible goal.

Paper 2 by Pocheptsova and Dhar adds to our understanding of the impact of metacognitive difficulty on evaluation in a second way. It suggests that when scarcity or infrequency is a good thing as in the case of special occasion products, a "scarcity heuristic" kicks in and subjective feelings of difficulty make products appear more rewarding and special.

Paper 3 by Shen, Jiang, and Adaval establishes a positive impact of metacognitive difficulty on subsequent evaluations. The authors suggest that subjective feelings of difficulty that arise from perceptual processing create an illusion of increased ease towards judgments that follow. Thus judgments about a target are not only affected by processing fluency of the target but also affected by processing fluency of the material preceding the target information.

Finally, paper 4 demonstrates that subjective ease impacts judgments about the self, but not about others. Because people presume to be more familiar with their own behavior than with the behavior of others, the experienced ease or difficulty of recalling such behavior is more diagnostic when making inferences about the self than when making inferences about others.

All four papers are closely related, well grounded in theory, advancing and consolidating research on metacognition and consumer preference formation. Each paper comprises of several experiments, and presents novel findings in an area of growing interest to consumer researchers.

Contribution & Likely audience: This session helps consolidate previous learning on the role of metacognition on consumer judgment and preference formation and provides important new perspective for future research. It should be well attended by researchers interested in topics such as information processing, perceptual processing, judgment and decision making, and heuristics and inference making, but in particular by researchers interested in the effects of affect and feelings on judgment and decision making. In order to encourage discussion at the end of the session, all presentations will be limited to 15 minutes, and each presentation will be followed by one question only. To allow session participants to focus on the big picture as well as details of papers, at the start of the session the chair will briefly introduce all papers and discuss how the papers relate to each other but are distinct, as described in this proposal. The time at the end of the session will be reserved for additional questions and discussion.

The “Instrumentality” Heuristic: Why Metacognitive Difficulty Is Desirable During Goal Pursuit

Aparna Labroo, University of Chicago

Sara Kim, University of Chicago*

Ample research has established that feelings serve as information about preferences (Schwarz, 2004). An important source of feelings is the subjective characteristics of a stimulus itself (e.g., clarity). Research argues that ease of processing a stimulus is beneficial and creates positive feelings that increase liking of the stimulus (Schwarz, 2004; Winkielman, Schwarz, Fazendeiro, & Reber, 2003; Zajonc, 1968, 1980). This increased affinity is independent of the descriptive characteristics (attributes) of the stimulus. It arises from factors such as visual clarity or prior exposures to the stimulus (Mandler, Nakamura, & Van Zandt, 1987). For example, abstract images, line drawings, and pictures are evaluated more favorably when their visual characteristics are clear than when they are blurry (Reber, Winkielman, & Schwarz, 1998). Similarly, previously encountered faces, music, words, and advertisements are more affective and likeable than those not encountered, presumably because they have become easier to process (Bornstien, 1989; Lee & Labroo, 2004; Winkielman & Cacioppo, 2001).

It has been proposed that because likeable objects that are personally relevant and familiar usually come to mind quickly and are processed easily, people implicitly associate familiarity and personal relevance with ease of processing. Thus, there is a correspondence in people’s minds among familiarity, personal relevance, and subjective feelings of ease. However, they also sometimes make the reverse inference. Consequently, when information pertaining to a target stimulus is associated with subjective ease (vs. difficulty) of processing—for example, the text and image being evaluated is clear (vs. blurry)—the feelings of ease are attributed to the target object, which in turn is evaluated as more familiar, self-relevant, and thus desirable (Schwarz, 2004). However, are there situations when difficulty increases evaluation? In the current research, we propose that when people have a highly accessible goal before evaluating a target object, subjective difficulty (vs. ease) of processing will improve its evaluation. This is because people with an accessible goal who evaluate the target object need to assess its instrumentality in fulfilling their goal. We propose that at this time an “Instrumentality heuristic” might help ascertain how instrumental the target being considered is toward fulfilling their accessible goal. In particular, we propose that because effort during goal pursuit is usually expended in whichever means is most instrumental, people implicitly associate effort with instrumentality of a means. They might reverse this correlation in their minds to also perceive effort as a signal of instrumentality of the target means in fulfilling the accessible goal. Thus, subjective difficulty (vs. ease) might improve evaluation of a target object that is a means towards fulfilling an accessible goal because, based on the belief that people generally put in effort in whichever means is most instrumental, effort signals value. When no clear goals are accessible or when the target object is not a means to fulfill an accessible goal, ease (vs. difficulty) of processing will improve evaluation, replicating the results found in previous research. We test this across three experiments.

In all three experiments, we manipulate difficulty of processing using either blurry or clear font, in line with a methodology used in previous experiments (Novemsky et al. 2007). Experiment 1 examines whether a highly accessible mood goal leads participants to prefer LeVour chocolate when information regarding the chocolate is subjectively difficult (vs. easy) to process. We find that participants primed with a mood goal evaluated LeVour chocolate more favorably and were willing-to-pay more for the collection when the ad was difficult (vs. easy) to process, but participants primed with a

conflicting self-control goal preferred LeVour and were willing-to-pay more for the collection when it was easy (vs. difficult) to process, as did neutral-goal participants. In order to ensure that our results apply beyond hedonic products and to ensure that metacognitive effort is more than a justification for choosing hedonic products (Kivetz & Simonson, 2002), experiment 2 employed donation amount as the dependent variable. Charity materials, which pretested as unpleasant and negative, ensured that neither they nor the donation to the charity provided immediate pleasure. As we expected, participants primed with the goal to be a better person donated more money when they were given blurry (vs. clear) materials. In contrast, participants in the neutral-goal condition donated more money when the materials were clear (vs. blurry), replicating research on ease of processing. Finally, Experiment 3 used a chronic measure of goal to replicate this effect. It also established that instrumentality of the target object as a means to fulfilling the accessible goal mediates the effect, and the effect is attenuated when people are unable to misattribute effort to effectiveness of the target in fulfilling the accessible goal. The effects were not because of perceived scarcity of the target and people liking what is scarce. As a set these studies thus demonstrated that the effect of metacognitive ease or difficulty of processing a target object on evaluation of the target object will depend on whether metacognitive difficulty is information to the motivational system regarding effectiveness of the target object toward fulfilling an accessible goal.

The Mere Luxury Effect

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Research indicates that products that are processed more easily also feel more familiar (Schwarz 2004), and because people prefer familiar products (Zajonc 1968), ease of processing results in enhanced liking of the target product. However, we propose that when people view products as rewards for special occasions, metacognitive feelings of difficulty might increase liking. This is because metacognitive difficulty is associated with a perception of lower frequency or limited availability of a product. Thus, difficulty of processing of special-occasion products will make them feel more special and positively affect judgments. As a result, consumers might prefer a special-occasion product more when processing difficulty is high.

Consistent with our proposition, we find, across three studies, that consumers prefer products that are viewed as rewards for special occasions more when processing difficulty is high. In Study 1 we show that consumers are willing to pay more for gourmet cheese that a specialty online retailer is introducing when its description is printed in a hard-to read vs. easy-to-read font. However, the effect of font on evaluation reverses for regular cheese that a regular online retailer is introducing, which is consistent with the existing literature. In Study 2 we replicate our findings with a different special-occasion product, and provide evidence in support of the proposed underlying mechanism. We find that consumers prefer chocolate truffles more when the information about them is presented in a difficult font. Interestingly, this effect of difficulty of processing holds only for people who have a belief that chocolate is for special occasions. We also show that when participants correctly attribute the difficulty of processing to the font, they correct (reduce) their evaluation. Study 3 provides further evidence of the underlying process. We use a priming technique (word scramble task, e.g., Labroo, Dhar, & Schwarz 2008) to frame an ambiguous product as either “special” or “everyday.” We find that ease (vs. difficulty) of processing increases evaluation of the product when participants are previously primed with “everyday,” but difficulty (vs. ease) of processing increases liking of the product when participants are primed with “special.” Observed effects are not accounted for by differences in involvement or mood across conditions. A final experiment replicates these effects in the context of a special occasion versus everyday restaurant.

Our findings contribute to the growing literature on metacognitive effects on judgments. We posit that the effect of difficulty of processing on judgments is context dependent and show that contrary to previous findings high processing difficulty can lead to an increase in liking. Merely framing a product as special occasion or simply priming people with the construct of special occasion prior to the evaluation task can reverse the effects that have previously been observed in the ease of processing literature. Since luxury products might frequently be seen by consumers as something special, decreased perceptual fluency might positively affect preferences and sales.

Contrast and Assimilation Effects of Processing Fluency

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Rashmi Adaval, Hong Kong University of Science and Technology

Consumers often encounter information sequentially when browsing through magazines. For example, they might encounter articles that are perceptually easy or difficult-to-read because of the font used. These articles might be followed by ads for products. How does the subjective experience of reading an article that is easy or difficult-to-read influence readers' reactions to a product ad that is encountered subsequently?

Some streams of research suggest that the product that is encountered subsequently will be evaluated more unfavorably if it is preceded by difficult-to-read information than if it is preceded by easy-to-read information (an assimilation effect).

For example, work by Winkielman and Cacioppo (2001) suggests that positive affect is elicited if there is high processing fluency and negative affect if there is low processing fluency. If this is the case, then several theories would predict that the affect elicited by the first task might transfer to the second task, leading to assimilation. However, other streams of research suggest that the second product will be evaluated more favorably if the processing of previously encountered material is difficult than if it is easy (a contrast effect). This could occur through three mechanisms. The first, a perceptual process, suggests that people adapt to the level of past stimuli and judge new stimuli in relation to an adaptation level (Helson 1964). Thus, difficult reading experiences could lead people to adapt to that low level of processing fluency and subsequently encountered ads could be contrasted with this adaptation level and might seem easier to process leading to more favorable evaluations. The second mechanism that predicts such effects (Adaval and Monroe 2002) suggests that participants might make a deliberative judgment of the ease or difficulty of processing information about the first product that is encountered (e.g., "This is so hard to read.") and then use this as a standard for judging the processing difficulty of information about the second product ("This is much easier"). Finally, contrast effects could occur because people might form unfavorable evaluations of the object described by the difficult to read information that is encountered first and use these evaluations as a basis for judging the second product.

Experiment 1 demonstrates how perceptual fluency elicited in one situation can lead to contrast effects in a second situation and whether this effect occurs without participants' awareness (as we predict) or is the result of deliberative cognitive activity. Participants were presented with a movie review (in either a difficult- or easy-to-read font) on a webpage and were told to either form an impression of the movie review or the webpage on which it was presented. Next, they were asked to evaluate a product described in an ad that used an easy-to-read font. We assumed that participants would experience low fluency when they read the review presented in difficult font (Novemsky et al. 2007). If an easy-to-read ad is encountered later, the experienced change in fluency might be attributed to the product described in the ad and might lead participants to evaluate it more favorably than they would if the ad was preceded by an easy-to-read movie review (a contrast effect). If the above effect occurs without awareness, it should be evident only when participants focus on forming an impression of the movie review because other participants (asked to form an impression of the webpage) are more likely to evaluate aspects of its layout (such as the font, white space etc.). This process should increase sensitivity to the fonts used in the ad. The increased awareness and deliberative comparison of these fonts with those seen earlier might reduce the effect. Results were consistent with these assumptions.

In experiment 2, participants were presented with the product ad after they had read a movie review in an easy- or difficult-to-read font. However, after they evaluated the product, they also evaluated the font of the ad and movie review. Then, they were presented with a second movie review (in a font similar to the first one) and a second ad. We assumed that evaluation of the fonts in the preceding task would draw participants' attention to fonts and should lead them to attribute processing ease or difficulty to the fonts used. Consequently, they should stop using feelings to evaluate the product in the second ad. Results were consistent with this assumption.

Experiment 3 investigated the conditions in which assimilation effects might occur by manipulating both the fluency of the first stimuli and the relatedness between the first and second stimuli. Participants were asked to read a movie review that was presented in either difficult or easy-to-read fonts. After they had read the review, they were exposed to an ad for popcorn presented in easy-to-read font. However, in one condition the relationship between the movie and the popcorn ad

was made explicit. In the other condition, this relationship was not obvious. After, reading the ad, participants were asked to evaluate the popcorn. The results of experiment 3 showed that assimilation effects occur when the two experiences are categorized together. Thus, when participants read that they could enjoy popcorn while watching the movie (high related condition), they categorized the popcorn and the movie as part of the same experience. Consequently, the difficulty of processing the movie review as a result of the fonts was transferred to the popcorn leading to an assimilation effect. In contrast, when the relatedness between the popcorn and the movie was not emphasized, the evaluation of the popcorn increased (a contrast effect) because of the processes demonstrated in previous experiments.

Use of Experienced Retrieval Ease in Self and Social Judgments

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Subjective experiences provide people with a wealth of knowledge. People get useful information not only from the declarative information they recall from memory, but also from the ease or difficulty they experience in bringing that information to mind (e.g., Schwarz, 1994). An array of previous studies on the availability heuristic and ease-of-retrieval effects suggests that people rely on the subjective ease of recall when making judgments about the self when they view such metacognitive information as diagnostic for the judgment at hand. The current research suggests that this particular form of subjective experience may be uniquely informative about the self, and not necessarily informative about others. Because people presume to be more familiar with their own behavior than with the behavior of others, the experienced ease or difficulty of recalling such behavior is more diagnostic when making inferences about the self than when making inferences about others. Four studies demonstrate that the relative reliance on retrieval ease compared to recalled content is different depending on the target of judgment.

In Studies 1 and 2, participants were asked to generate either 2 or 8 examples of assertive behavior that either they or another person had performed. Replicating previous findings (Schwarz et al., 1991), participants rated themselves as less assertive after recalling 8 rather than 2 examples of assertive behavior because of the relative difficulty they experienced in generating more instances of assertiveness. Those who retrieved examples about the average college student (Study 1) or a specific acquaintance (Study 2) showed the opposite pattern, rating the other as more assertive the more behaviors they listed. In essence, their judgments reflected the content of the information called to mind. In addition, subjective retrieval ease was less informative when people were relatively less familiar with the specific other person.

In Study 3, some participants were provided with an alternative explanation for their experienced difficulty of recall. Because people should presume to know more about themselves than they do about others, I predicted that people would view subjective ease of recall as more diagnostic for self-judgments than for most other-judgments. If subjective ease not particularly diagnostic when recalling the behavior of others, specific instructions that render ease nondiagnostic should have little effect on the ensuing judgments of other people. Consistent with this hypothesis, the results of Study 3 found that attributing difficulty to an external cause affected self, but not social, assessments.

In the first three studies, participants showed a self-other difference by making actual judgments about themselves or about another person. As such, they were answering slightly different questions. It is conceivable that, independent of any of the experimental manipulations, people adopted a different strategy for answering questions about the self and questions about other people. Study 4 explored whether the self-other difference generalized to risk judgments about a state of the world (the safety of the town where they live), rather than a state of an individual person (one's personal safety). To do so, female participants were asked to think about either 2 or 6 times that either they or another female felt unsafe in their neighborhood, and then to rate how safe their town was in general. Consistent with results from the previous studies, women with the easy task of generating 2 times they were personally afraid judged their town as relatively less safe than women with the difficult task of generating 6 examples; however, when generating examples about another student, the opposite pattern was found. In all of these studies, correlational analyses supported the hypothesis that experienced difficulty was related to the resulting difference in self and social judgments.

Taken together, these studies demonstrate that the target of judgment can affect how people process and use different sources of information in forming judgments, and shed new light on the underlying mechanisms and boundary conditions for the ease-of-retrieval heuristic. A deeper awareness of when and why people rely on different facets of available

information when making self and social judgments should increase our understanding of the form and function of judgmental shortcuts, and may shed further light on how the process of understanding oneself differs from the process of understanding another.

- Kivetz R. & Simonson, I. (2002), "Earning the Right to Indulge: Effort as a Determinant of Customer Preferences toward Frequency Program Rewards," *Journal of Marketing Research*, 39: 155-170.
- Novemsky, N, Dhar, R., Schwarz, N., & Simonson, I. (forthcoming), "Preference Fluency in Consumer Choice," *Journal of Marketing Research*.
- Schwarz, N. (2004), "Metacognitive Experiences in Consumer Judgment and Decision Making," *Journal of Consumer Psychology*, 14(4), 332-348.
- Schwarz, N., & Clore, G. L. (2007), "Feelings and phenomenal experiences," in A. Kruglanski & E. T. Higgins (eds.), *Social psychology. Handbook of basic principles* (2nd ed.; pp. 385-407). New York: Guilford.
- Schwarz, N., Song, H., & Xu, J. (in press), "When thinking is difficult: Metacognitive experiences as information," in M. Wänke (Ed.), *The Social Psychology of Consumer Behavior*. New York, NY. Psychology Press.
- Slovic, P. (1987), "Perception of risk," *Science*, 236, 280-285.
- Winkielman, P. & Cacioppo, J.T. (2001). "Mind at Ease Puts a Smile on the Face: Psychophysiological Evidence that Processing Facilitation Elicits Positive Affect," *Journal of Personality & Social Psychology*, 81: 989-1013.
- Zajonc, R.B. (1980), "Feeling and Thinking: Preferences Need no Inferences," *American Psychologist*, 35: 151-175.

Finding Your Way Out of Sticky Situations: The Role of Self-Regulation and Motivation

Chair: Raj Raghunathan, University of Texas, Austin

Discussion Leader: Jaideep Sengupta, Hong Kong University of Science and Technology, China

Symposium Overview

Why is so much effort required to convince ourselves to engage in activities which we know will eventually make us the happiest? We know how good we will feel after exercising and the multitude of benefits we will reap from developing a regular exercise program, and yet it often takes all of our will and some serious self-deliberation to muster up the motivation to put on those running shoes and hit the gym. Research has traditionally pointed fingers at the immediate hedonic experience afforded by indulging in the short-term temptation and putting off the long-term goal (turning on the TV and relaxing on the couch instead of putting on those running shoes) as being the reason why motivation for self regulation often eludes us (Hoch & Loewenstein, 1991). Recent research, however, has dug deeper and uncovered other underlying mechanisms, besides self-control failure identified in previous research.

This special session presents streams of research which suggest that there exists a certain “stickiness” inherent in mind states: once a certain mental focus is adopted, there is an inertia to stay in that state. This stickiness can either be a force against which individuals must struggle in order to exert control over themselves, a force that may aid in maintaining productivity, or a force that compels individuals to stay a given course even if the course loses its initial appeal. Three papers demonstrate the stickiness of various situations: the first with regard to attentional biases toward temptations, the second with regard to the inertia of the experience of motion, and the third with regard to the pursuit of a goal despite the existence of negative affect associated with the pursuit.

Ramanathan and Lu present evidence that the salience of incentives of indulgence and the difficulty of averting attention away from the temptation drives impulsive behavior and overindulgence. In the first study, the results of a visual probe task found that it was the inability of individuals to avert attention away from a tempting target that drove subsequent indulgent behavior. The second study also used a visual probe task to demonstrate that strong attentional biases drive fixation on a temptation which results in stronger approach reactions toward the temptation, recurrence of states of desire over time, and stickiness to such states once activated.

Stickiness of states may also be used to one’s advantage if the state facilitates task engagement. **Chugani, Raghunathan, and Zhang** illustrate that individuals who perceive themselves to be “in motion” (e.g. engaged in a task) exhibit a propensity to maintain that motion. The first study found that individuals in a motion state exhibit a higher propensity to choose to engage in a subsequent task and proceed through that task at a faster rate than individuals at rest. The second study showed that taking away the experience of motion mitigates the propensity of those in a motion state to maintain their motion, thus breaking through the stickiness of the motion state.

The stickiness of a situation may be strong enough to cause behavior that goes against one’s affective experience. Shiv, Litt, and Khan show that the stickiness of goal pursuit enables it to endure and even intensify in the face of negative affect caused by frustrated goal pursuit, and that the negative affect leads to decreased evaluations of the goal target. In the first study, subjects who initially failed to win a prize reported a higher willingness to pay for the prize (increased willingness to pursue goal target) but were subsequently more likely to abandon it for another prize (decreased liking of goal target). The second study illustrated that these effects of frustrated goal pursuit generalize to different products of the same brand as the target product.

All papers in this special session contain collected data from at least two studies and are in the final stages of completion. Together, they uncover the “stickiness” of various states and the role it plays in motivation and self-regulation, thus promoting a productive dialogue in further uncovering the dynamics of these constructs.

Why One Can't Stop Looking at that Temptation: Dynamics of Attentional Biases in Self-Control Dilemmas

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Jun Lu, University of Chicago

Why do people over-indulge? What prompts a person not just to act on impulse but to do so repeatedly in a manner counter to one's self-interest? A variety of theories have been ventured in the literature. One view, held by behavioral economists, is that such acts of excessive impulsivity may be attributed to extreme hyperbolic discounting. While this may describe the extent to which people may value the rewarding aspect of indulgence, it does not tell us much about the underlying psychological process. Two views have emerged in the literature in this regard. An affect-based explanation is that such indulgences may cause spontaneous activation of lower-order affective reactions that then guide behavior (e.g., Shiv and Fedorikhin 1999, 2002). On the other hand, a motivation-based explanation is that rewards carry high incentive value and activate hedonic goals that strengthen over time, leading to over-indulgence (e.g., Ramanathan and Menon 2006). In this paper, we provide additional support for an incentive-salience argument, showing that impulsive behavior and overindulgence are driven by two different forms of attentional bias towards temptations, despite having healthier options that are rated as equally liked and are equally vivid and attractive.

In the first study, participants first completed a scrambled sentence task that was either neutral or designed to activate the need for something sweet. Stimuli consisted of 18 color photographs of tempting desserts (e.g., ice-cream, lemon meringue, chocolate cake), each paired with a photograph of a sweet but healthy option (fruit salads, cut fruits). Each picture pair was chosen on the basis of matched liking, vividness and attractiveness as well as size. Pictures were also matched as far as possible on colors. There were an additional 18 pairs of pictures of flowers and vacation spots that were rated as equally pleasant and likeable but had no immediate incentive salience. Eight pairs of neutral objects (e.g., shoes, ties) were used on practice rounds. Picture pairs were displayed side by side. A small black dot probe appeared in either the left or right positions on every trial. The task consisted of 16 practice trials, followed by 64 experimental trials in two blocks of trials, presented in a new random order in every session. Each picture pair was presented four times, so that pictures and probes appeared equally often on the left and right sides. Picture pairs were presented for either 100 ms or 1250 ms on the screen after a fixation cross that appeared for 500, 750 or 1250 ms at random. They were followed by the dot probe that appeared in one of the two positions and remained on screen until the respondent's response. Attentional bias scores were computed for each participant by subtracting mean RTs to probes replacing pictures of desserts from the mean RTs to probes replacing the pictures of fruits. Positive values indicate greater vigilance for temptations. Positive values at the 100 ms exposure level indicate automatic visual orientation towards temptations, while those at the 1250 ms level indicate maintenance of attention and an inability to divert attention from desserts when the probe appeared in the position of the fruit. Next, participants completed a series of filler questions, followed by questions relating to their felt emotions and an assessment of their impulsivity on the CIS scale (Puri 1996). They were then dismissed and ushered one at a time into an adjacent room where they were left alone for 3 minutes (while waiting to complete an unrelated study) with a tray filled with chocolate cookies that the experimenter suggested were from a departmental meeting. The experimenter subsequently counted the number of cookies consumed. Results showed that impulsive people showed a strong automatic visual orientation towards the desserts despite being presented with an equally vivid and attractive healthy option. There was no such bias towards either flowers or vacation spots, both of which were rated as equally liked and attractive. This bias did not, however, affect the number of cookies taken. Rather, it was the inability to avert attention at the more conscious level from the temptation that influenced the number of cookies taken, more so when impulsive were primed with the hedonic goal.

In a second study, a similar visual probe task was followed by a task requiring participants to continuously move a mouse on a two-dimensional grid for one minute while looking at a tray filled with desserts, indicating the strength of their desires and avoidance motivations respectively. Data were sampled every 100 ms. The dynamic data were subjected to a novel analytical technique called Recurrence Analysis (Zbilut and Webber 1992), which is used to determine whether the trajectory of a dynamic process visits the same regions over time, indicating a stable goal state. Results indicated that impulsive people who were primed with a hedonic goal exhibited a strong attentional bias at the conscious level that prevented them from averting their attention from temptations, and that this bias resulted in a) more intense approach

reactions toward the dessert relative to those without the bias while there were no differences in the avoidance reactions, b) greater recurrence of approach reactions over time and c) greater time spent in the same region of phase space, indicative of stickiness in approach reactions.

Together, these results provide some evidence that over-indulgence is likely due to a goal-driven attentional bias that causes people to remain fixated on temptations despite having equally liked and vivid alternatives. They suggest that the decision to indulge may well be based on pure incentive salience (Robinson and Berridge 1998) rather than spontaneous affective reactions.

The Inertia of Motion

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We posit that Newton's first law – an object at rest (motion) stays at rest (motion) unless acted on by an outside force – has parallels in the human realm. Specifically, individuals in a state of psychological motion (e.g. who perceive that they have begun a task) will exhibit a greater propensity to maintain the motion state (e.g. by engaging in a subsequent task) than those in a state of rest. This "Inertia of Motion Hypothesis" predicts that an individual in a state of motion will (1) exhibit a greater propensity to engage in a subsequent task and, due to the greater readiness for motion, (2) exhibit a faster rate of progress through a given task. Two studies test these predictions.

In Study 1, participants were seated at separate computers and were asked to answer some simple demographic questions. Upon completion, half were told that they had completed the first section of the study (motion state condition), and the other half were told that the demographic questions were merely preliminary and that they had not yet started the study (rest state condition). Both groups were then informed that they would be required to wait for about five minutes until all participants were ready to proceed. In addition, participants were told that, if they wished, they could engage in an optional task while waiting by clicking on an icon at the bottom of the screen. The optional task consisted of word puzzles in which participants had to create as many words as possible from a string of letters presented to them. The amount of time it took for participants to click on the optional task icon served as a measure for their propensity to engage in a subsequent task. The rate at which participants generated the words in the task was taken as their rate of progress through the task. Results showed that those in the motion condition clicked on the icon for the optional task sooner (after $M=61.48$ seconds) than participants in the rest condition (after $M=104.60$ seconds), $t(117) = 3.38, p < .01$. Further, those in the motion condition generated each word at a faster rate ($M=12.08$ seconds per word) than those in the rest condition ($M=17.28$ seconds per word), $t(113) = 3.18, p < .01$. Thus, those in the motion condition exhibited a greater propensity to maintain their motion by choosing to engage in an optional task sooner than those in the rest condition, and, because of their greater readiness for further motion, proceeded through the optional task at a faster rate than those in the rest condition.

Study 2 was designed to provide triangulating evidence for the inertia of motion hypothesis by exploring the effect of taking away the experience of psychological motion. After the same state manipulation used in Study 1 (state: rest vs. motion), half of the participants simply proceeded to the next part of the study (no interrupt condition). The other half were interrupted by learning that they had to wait for "about two minutes" to make sure all participants were ready to proceed to the next part of the study (interrupt condition). For those in the motion condition, the period of disengagement imposed by the interruption was expected to take away their experience of psychological motion and thus mitigate their propensity to maintain that motion. For those in the rest condition, the interruption should simply extend their period of rest and was not expected to alter their state. Next, all participants then encountered an impression formation task; they were presented with one piece of information at a time about a target person and were instructed to stop requesting more information when they felt confident enough to form an impression of the target. The average time spent on each piece of information was recorded as a measure of speed of progress through the task. Analysis of this data revealed an interaction between the state and interrupt variables, $F(3, 39)=3.73, p=.06$. As expected, without an interruption, individuals in motion spent significantly less time on average examining each piece of information ($M=3.05$ seconds per piece) than

those at rest ($M=4.34$ seconds per piece), $F(1, 19)=3.55$, $p < .05$. This was a replication of the rate of progress findings from Study 1. In the interrupt condition, there was no significant difference between those in the motion condition ($M=3.91$ seconds per piece) and those in the rest condition ($M=3.36$ seconds per piece), $F(1,20)=0.43$, $p > .50$. So, taking away the experience of psychological motion mitigated the propensity of those in the motion condition to maintain their motion, causing them to behave no differently from those in the rest condition. A simple contrast illustrates the overall effect more clearly: the motion, no interrupt condition (the only condition in which participants experienced unmitigated motion) proceeded through the pieces of information at a faster rate ($M=3.05$ seconds) than those in the other three conditions combined ($M=3.90$ seconds per piece), $F(1,41)=3.92$, $p=.05$. So, these results triangulate the results from Study 1 by showing that taking away psychological motion results in a mitigation of the propensity to maintain motion. These studies provide evidence that once an individual perceives himself to be “moving”, the experience of psychological motion activates a motion state, resulting in a propensity to maintain motion. This exhibits itself behaviorally through (1) an increase in the propensity to engage in a subsequent task, and (2) a faster rate of progress through a given task. The relationship between psychological motion and the propensity to maintain that motion was reinforced by showing that when psychological motion is absent, so too is the propensity to maintain motion.

Parallel Counter-Driving and Decoupling of Wanting and Liking States

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Individuals must constantly deal with failures to achieve goals and obtain desired outcomes. How they respond to such unpleasant “jilting” of effort has significant implications for their persistence in continuing to pursue failed objectives. Stock-outs and strategic undersupply are two such common situations faced by consumers, and reactions to them have important effects on decision making and future patterns of store patronage and product demand.

A key issue deserving clarification, however, is the degree to which goal denial affects not only continued pursuit of goals, but also how people feel about the goals themselves. In particular, the specific case of jilted desire presents a direct counterposing of forces acting on engagement and hedonics, and may thus reveal much about their dissociability. We propose that failure to achieve a desired end-state can simultaneously increase desire to obtain the outcome, and decrease the affective appeal of the outcome, due to the unpleasantness of failing to achieve it. This creates the perverse situation of a goal becoming more desired at the same time as becomes less desirable. Correspondingly, if a jilted outcome state is ultimately achieved, removal of the pursuit motivation may leave unameliorated the negative affect generated by the earlier goal-pursuit failures. The result: reduced satisfaction for the very outcome that the individual had become more driven to obtain. Thus, when efforts to obtain an objective are stymied, people can come to both want it more and like it less.

Primary-Effect Study

Experiment. Sixty subjects were provided an allotment of ‘virtual tokens’, and told they would be used to purchase or play games for real prizes. They then made a series of willingness-to-pay (WTP, in tokens) judgments for some potential prize products. For half of the subjects (the “non-jilted” group), this initial series included a prize, P, that they subsequently won in a rigged game. The other half (the “jilted” group) were instead told that they lost this same game with the same possible prize P, and only then were presented with a WTP query regarding P. These WTP judgments were our dependent measures of “wanting” for prize P.

All subjects then played a second rigged game, in which the jilted group finally won prize P (and non-jilted subjects won tokens). All were then given the chance to trade P for an alternative, Q, with switching propensity taken to conceptualize “liking” for prize P, in terms of satisfaction. Subjects finally completed a version of the Affect Intensity Measure (AIM) of individual differences in strength of emotional experience and responsiveness (Larsen & Diener, 1987), to explore the centrality of affective reactions to our hypothesized effects.

Results. Jilted subjects indeed reported significantly amplified WTP for prize P, both compared to non-jilted subjects (mean 7.56 vs. 5.29 tokens; $t(53)=2.289$, $p=.026$), and in within-subject comparison to a highly similar prize, P’ (paired

$t(26)=3.276, p=.003$), which non-jilted subjects conversely valued as equivalent to P. Interestingly, this effect seemed largely driven by individuals scoring low in affect-intensity, using a median split on AIM responses. High-AIM jilted subjects did not show significant mean difference in WTP for P from non-jilted subjects, primarily due to a sizeable block “spurning” P with zero/near-zero WTPs.

Jilted subjects were additionally significantly more likely to give up prize P in favor of prize Q (21/27) than were non-jilted subjects (12/28; $p = .013$, Fisher’s exact test). Moreover, WTP values for P did not significantly differ between subjects keeping versus trading P, for either condition, further supporting wanting-liking dissociability.

In a second study, we employed alternative wanting and liking operationalizations, to provide converging evidence for the observed effect; tested robustness to changing product-denial attribution from a subject’s own failure to a stock-out; explored effect generalizability mere brand-overlap; and further explored the importance of affect intensity as a moderator of wanting-liking decoupling.

Generalized-Effect Study

Experiment. A between-subjects design ($n=159$) was used to help rule out “bleed-over” between wanting and liking as an objection to the first study. In Part 1, half of subjects faced an “out of stock” denial of effort putatively expended to obtain a pair of Guess-branded sunglasses. The other half performed the same effort and were exposed to the same sunglasses, but did not expect to receive them (or anything else).

Part 2 measured wanting and liking between subjects across the Part 1 conditions. Rather than the Guess sunglasses, a pair of his-and-her Guess-branded watches (the “jilt-proxy”) was introduced. For wanting measurement, subjects chose one of two prize packages for a lottery draw-entry, either the Guess watches or similar Calvin Klein-branded watches. In contrast, the liking measure queried attractiveness evaluations, detached from wanting-influenced choice inclinations. We adapted the distortion paradigm (e.g., Russo et al., 1996), in which favoring/disfavoring of alternatives is measured by the degree to which individuals evolve to judge serially presented equivocal information as increasingly favoring one alternative over another. In particular, we measured subjects’ distortions between the Guess and CK watches in evaluating equivocal attribute information (movement, watch-band, etc.). Finally, subjects completed the reduced-AIM used in the first study.

Results. For wanting, the AIM-moderation from the first study was completely dominant here: whereas jilted low-AIM subjects significantly over-chose the jilt-proxy (20/24), high-AIM subjects actually under-chose the jilt-proxy (7/23) in favor of the alternative ($p < 0.0005$, Fisher’s exact test). This may be attributable to a weakened counter-effect on ‘spurning’ tendencies of high-AIM individuals, caused by the use of a jilt-proxy and/or a lottery being less engaging than actual prizes at stake.

For liking, distortion computed across nine attributes as per Russo et al. yielded near-zero distortion in favor of either Guess (jilt-proxy) or CK by non-jilted subjects, versus +0.40 units against the Guess item by jilted subjects ($t(582) = 2.7592$, one-sided $p < 0.005$). Paneling by AIM yielded higher anti-Guess liking-distortion by high-AIM (+0.52) versus low-AIM subjects (+0.28), but this difference was not significant ($t(286) = 1.1637, p = 0.2455$).

Implications

These findings support the notion that wanting and liking can be counter-driven by goal-failure analogous to common consumer experiences. This may relate centrally to relationships between stock-outs, return rates, and repeat-purchase tendencies. Moreover, the AIM interaction results suggest tighter coupling of wanting and liking sub-systems as characteristic of high-AIM individuals. Despite the hot-headed illogicality of spurning products (or even brands) because of past negative experiences, such behavior is actually “hedonically normative”, in the sense of exhibiting greater inter-regulation between wanting and liking, and thus being more consistent with the evaluative feelings that will ultimately determine post-choice happiness.

Perceptual Influence and Cognition

Chair: Huifang Mao, University of Central Florida

Blue or Red? Exploring the Effect of Color on Cognitive Task Performances

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Color is a basic aspect of human perception and has intrigued many researchers to study its impact on cognition and behavior. For example, color has been shown to affect test performance (Soldat et al. 1997) and well being of hospital patients (Verhoeven et al. 2006). Research in marketing has shown that cool colors (e.g., blue) are often associated with more favourable product evaluations, higher purchase intentions, and a stronger inclination to shop (Babin et al. 2003). While the above findings are intriguing, they often lack rigorous theoretical understanding of why those effects occur. In addition, inconsistent results have been reported in the color literature. For example, conflicting results have been found as to whether warm versus cool colors enhance cognitive task performance. While some researchers have found that cool color (e.g., blue) led to better performance than warm color (e.g., red; Elliot et al. 2007; Soldat et al. 1997), others have observed the opposite (e.g., Hatta et al. 2002; Kwallek and Lewis 1990).

This paper intends to reconcile the above discrepancy and advance theoretical understanding of how and why color affects human cognition. We suggest that different colors can activate alternative types of regulatory focus, and consequently affect performances on different types of cognitive tasks. People also develop shared associations with colors (Elliot et al. 2007). While red is often associated with dangers and mistakes (Elliot et al. 2007), blue is frequently associated with openness and freedom (e.g., sky and ocean; Kaya and Epps 2004). Such color-induced associations have the potential to activate alternative types of regulatory focus. Regulatory focus theory suggests that people can achieve their goals in two different ways, either with a promotion or a prevention regulatory focus (Higgins 1987). Individuals who adopt a promotion focus perceive their goals as hopes and aspiration, and *eagerly* approach matches to their goals. In contrast, those who adopt a prevention focus perceive their goals as duties and obligations, and *vigilantly* avoid mismatches to their goals. We propose that red, due to its associations to danger and failures, is likely to activate a prevention focus because it cautions people to guard against such negative outcomes. Blue, however, is expected to activate a promotion focus, due to its associations to openness and freedom and thus its focus on achieving positive outcomes. Further, empirical studies involving regulatory focus theory have revealed that while a promotion focus increases performance speed and creativity, a prevention focus enhances performance accuracy (Friedman and Forster 2001; Forster et al. 2003). Following this line of research, we hypothesize that red, if activating a prevention focus, should enhance performance on detail-oriented cognitive tasks, whereas blue, if activating a promotion focus, should lead to better performance on creative tasks. A series of experiments provide systematic support to our theorizing.

All studies were run on computers and color was manipulated via background screen color. The first study employed two tasks to test the basic hypothesis that red/blue can induce primarily a prevention/promotion focus. First task involved indicating a preference for a prevention or a promotion focused brand from the same product category (Zhou and Pham 2004). The second task asked participants to solve a set of anagrams containing prevention, promotion or control target words. Results supported our hypothesis that red (blue) activates primarily a prevention (promotion) focus. Individuals in the red (blue) condition showed higher preference for brands featuring prevention (promotion) benefits and took significantly less time to solve prevention (promotion) focused anagram words. An auxiliary study demonstrated that our color manipulation did not affect mood.

Study 2 examined whether red (blue), due to activated prevention (promotion) focus, can enhance performance on detail-oriented (creative) cognitive tasks. A detailed-oriented task (a memory task) and a creative task (generating creative uses of a brick) were employed. As anticipated, better performance (i.e., accuracy) was observed in the red versus blue or control condition for the memory task, while those in the blue condition produced more creative responses in the creative task.

Study 3 replicated study 2 results using a different set of tasks, namely a proofreading task (detail-oriented) and a Remote Associates Test (creative task; Mednick 1962). More importantly, it offered insights on the underlying mechanism. We

found that red can activate a prevention focus and thus enhance performance on a task requiring attention to detail, whereas blue can activate a promotion focus and therefore enhance performance on the creative task. In the final study, we tested an important marketing implication from our theorizing. If red leads to prevention focus, it should enhance persuasion when paired with an ad that features images that are unambiguously related to the target product (e.g., specific product details). This is so because such clearly unambiguous, product-related images ensure these prevention-focused individuals that everything is in order and the ad involves no ambiguity. In contrast, blue, due to its activation of promotion focus, should enhance persuasion when paired with an ad that features images that are remotely related to each other and to the product. As such a setup provides opportunities for these promotion-focused individuals to engage in creative processing. An ad featuring either unambiguously or remotely related images was adopted from Zhu and Meyers-Levy (2007). As expected, those in the red condition were more persuaded when the ad featured unambiguously related images than remotely related ones, whereas the opposite was true for those in the blue condition. In sum, findings from this paper contribute to our knowledge in two ways. First, it reconciles a conflicting set of results observed in the color literature (i.e., whether red or blue enhances cognitive performance?). We demonstrate that while red leads to a prevention focus and thus better performance on detail-oriented tasks, blue leads to a promotion focus and thus better performance on creative tasks. Second, findings from this research offer important marketing insights. While prior research has demonstrated that blue generally leads to more favorable consumer responses, our theory and data suggest conditions where red can enhance persuasion.

- Babin, Barry J., David M. Hardesty and Tracy A. Suter (2003), "Color And Shopping Intentions: The Intervening Effect Of Price Fairness And Perceived Affect," *Journal of Business Research*, 56, 541– 551.
- Elliot, Andrew J., Markus A. Maier, Arlen C. Moller, Ron Friedman and Jorg Meinhardt (2007), "Color and Psychological Functioning: The Effect of Red on Performance Attainment," *Journal of Experimental Psychology: General*, 136(1), 154–168.
- Forster, Jens, Tory E. Higgins, and Amy Taylor Bianco (2003), "Speed/accuracy decisions in task performance: Built-in trade-off or separate strategic concerns?," *Organizational Behavior and Human Decision Processes*, 90, 148 - 164.
- Friedman, Ronald S., and Jens Forster (2001), "The Effects of Promotion and Prevention Cues on Creativity," *Journal of Personality and Social Psychology*, 81 (6), 1001-1013.
- Hatta, Takeshi, Hirotaka Yoshida, Ayako Kawakami, Masahiko Okamoto (2002), "Color Of Computer Display Frame In Work Performance, Mood, And Physiological Response," *Perceptual Motor Skills*, 94, 39-46.
- Higgins, E. Tory (1987), "Self-Discrepancy: A Theory Relating Self and Affect," *Psychological Review*, 94 (July), 319–40.
- Kaya, Naz and Helen H. Epps (2004), "Relationship Between Color And Emotion: A Study of College Students," *College Student Journal*, 38 (3), 396-405.
- Kwallek, Nancy and Carol M. Lewis (1990), "Effects of environmental colour on males and females: A red or white or green office," *Applied Ergonomics*, December, 275-278.
- Mednick, Sarnoff A. (1962), "The Associative Basis Of The Creative Process," *Psychological Review*, 69 (3), 220-232.
- Soldat Alexander S., Robert C. Sinclair and Melvin M. Mark (1997), "Color as an Environmental Processing Cue: External Affective Cues Can Directly Affect Processing Strategy without Affecting Mood," *Social Cognition*, 15(1), 55-71.
- Verhoeven, Joost W. M., Marcel E. Pieterse and Ad Th. H. Pruyn (2006), "Effects of Interior Color on Healthcare Consumers: A 360 degree Photo Simulation Experiment," *Advances in Consumer Research*, 33, 292-293.
- Zhou, Rongrong and Michel T. Pham (2004), "Promotion and Prevention across Mental Accounts: When Financial Products Dictate Consumers' Investment Goals," *Journal of Consumer Research*, 31 (June), 125-135.
- Zhu, Rui (Juliet) and Joan Meyers-Levy (2007), "Exploring the Cognitive Mechanism that Underlies Regulatory Focus Effects," *Journal of Consumer Research*, 34 (June), 89-96.

The Tortoise and the Hare: Exploring Consumers' Preference for Progress Representation in Terms of Velocity or Distance

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The tortoise and the hare is a classic story of a slow-moving tortoise who challenged a hare to a race after being mocked for his leisurely pace. When the race began, the hare quickly overtook the tortoise and decided to take a nap midway through the course, presumably from noticing his superior velocity. Meanwhile, the tortoise completed the remaining distance, overtaking the hare, and thus winning the race. Beyond the well-know proverb, "slow but steady wins the race", this fable also suggests that relying on a sense of velocity or focusing on the distance towards goal completion might generate unique affective, behavioral, and motivational consequences on how one pursues a goal.

Past research efforts have independently examined the role of velocity and distance as progress indicators for goal pursuit. Work on velocity has examined how the degree of velocity in approaching a goal impacts peoples' affect towards this goal (Hsee and Abelson 1991). In contrast, work on distance has examined how people's motivation is affected by the distance toward goal completion (Kivetz et al. 2006), or by distinct distance foci (Koo and Fishbach 2008). However, no research has yet contrasted velocity and distance or examined when they generate distinct consequences for goal progress. We reasoned that construing progress as velocity is primarily intended to reflect people's immediate internal state and thus constitutes an "online", "here and now" representation of progress, involving concrete and immediate aspects of goal pursuit. In contrast, elaborating on distance involves thinking about goal endpoints and may thus trigger higher order representational features of this goal, directing people to think about goal pursuit in an integrative, holistic way. This distinction led us to hypothesize that the consideration of velocity vs. distance might be related to how people represent their goals. In particular, one important dimension on which people have been shown to represent a single goal in multiple ways is construal level. Construing a goal at a low level of construal involves integrating subordinate features and entails more practical aspects of this goal; construing a goal at a high level of construal requires capturing its superordinate features.

Based on this reasoning, we propose that there exists a natural compatibility between a consideration of distance vs. velocity and construal level (experiment 1). As a result, consumers should naturally be attentive to information pertaining to velocity (vs. distance) when in a low (vs. high) construal level. We further demonstrate that consumers' affect and motivation to complete a goal are higher when consumers' construal level matches the progress representation encountered (high construal and distance, low construal and velocity) than when it doesn't, and we investigate the mechanism underlying the matching effect (experiment 2). Last, we offer insights on the nature of the motivational force derived from the matching experience (experiment 3).

Experiment 1 tested our hypothesis of a natural relationship between distance/velocity and high/low construal. Participants first completed a construal level priming manipulation (Freitas et al., 2004). Then, they completed an eighteen word crossword puzzle, containing an equal number of distance, velocity, and neutral words, and were asked to stop after they had found ten words. Based on the accessibility literature (Srull and Wyer 1979) we expected that distance (velocity) words would be more accessible for high (low) construal. Indeed, supporting our proposed relationship, participants thinking at a high (low) level of construal found a significantly greater number of distance (velocity) words than velocity (distance) words.

Experiment two examined the consequences of the proposed matching between progress representation and construal level on attitudes and behavior. Participants were asked to imagine planning to take the GMAT in either a high or low level of construal (Leboeuf 2007). Then, participants were exposed to an ad for a GMAT preparation, in which progress representation was manipulated by emphasizing the rate at which performance would increase (velocity) or the overall increase in performance (distance). Participants reported more favorable attitudes toward the GMAT preparation, and greater motivation to take the GMAT, when the progress representation encountered matched their construal level matched than when it didn't. Moreover, we found evidence that participants' feeling of rightness (Cesario et al., 2004) mediated their attitudes, suggesting that the matching mechanism presented is a meta-cognitive experience.

A final experiment tested whether matching construal level to distance or velocity had unique motivational consequences. Participants were asked to imagine being a sales manager. They were presented with a brief history of the company, and of its relations with one of its supplier. Construal level was manipulated by either describing the relationship with the company and supplier as long-term (high construal) or short term (low construal; c.f. Trope and Liberman, 2003). Then, participants were told that they needed to buy 1100 units of a component, and were presented with a discount pricing offer from the supplier framed in terms of velocity (“The supplier offers 10 units for free for every 100 units you order”) or distance (“The supplier offers 100 units for free if you order 1000”). Replicating experiment 2, participants reported more favorable attitudes toward the supplier when they experienced a match between progress representation and construal level. In addition, participants who experienced a velocity fit reported greater motivation, but only when the framing of the question emphasized the velocity at which they would work (“How fast do you think you can work with this supplier?”). Conversely, participants experienced a distance fit reported greater motivation, but only when the framing of the question emphasized the distance they would cover (“How many tires do you think you can produce with this supplier?”).

Conclusion and Contributions. The present work extends current thinking and theorizing by demonstrating unique effects of representing progress in terms of distance or velocity as a function of construal level. In addition, by demonstrating that this matching mechanism is consequential for consumers’ attitudes and motivation, we suggest that progress is not only a mere function of one’s motivation, but can also be used and seen as a tool to leverage consumers’ motivation.

Supersize in 1D, Downsize in 3D: Effects of Spatial Dimensionality on Size Perceptions and Preferences

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Supersizing is one of the most important trends in food marketing (Nielsen and Popkin 2003). Because larger package and portion sizes lead consumers to eat more, the supersizing trend is frequently held as one of the primary drivers of the obesity epidemic and has attracted considerable scrutiny by policy makers and consumers. To reduce the threat of litigation and environmental costs of packaging waste, some marketers have started offering downsized packages (e.g., Kraft’s 100-calorie packs). In these circumstances, it has become crucial for marketers, consumers, and policy makers to understand consumer response to changes in package and portion size.

In this research, we examine how the dimensionality of changes in portion and package size influences consumers’ estimations of product volume, preferences for buying supersized or downsized packages and portions, size of product doses produced for consumption, and price discounts expected and offered for buying larger package sizes.

Research in psychophysics (Stevens 1986) has established that the subjective experience of physical intensities is an inelastic power function of their true magnitude (i.e., $PERCEPTION = a(Truth)^b$, where the exponent $b < 1$). This leads people to underestimate the magnitude of size changes. Research also showed that size estimations are even less elastic when estimating changes in volume (3D change) than when estimating changes in areas (2D change) or lengths (1D change) (Frayman and Dawson 1981). Drawing on these findings, we make the following hypotheses. First, size estimations are more elastic when packages change in one dimension in space (e.g., height) than when they change in two or more dimensions (length, width, height). Second, consumers’ willingness to pay for larger package sizes—and hence their quantity discount expectations—are influenced by their biased size estimations and follow an inelastic function of actual size. Third, providing size information reduces but does not eliminate the effect of resizing dimensionality. This effect of dimensionality leads consumers to prefer packages supersized in 1D and those downsized in 3D, and to pour more product into and out of containers when supersizing and downsizing a dose in 3D (vs. 1D). Five studies provide support for our hypotheses.

Study 1 examined consumers’ perceptions of package size when it changes in 1D vs. 3D. Participants saw the pictures of 6 sizes of a candle (50g, 100g, 200g, 400g, 800g, 1600g), which increased either in 1D (height) or in 3D (height and diameter). Given the size of the smallest candle (50 g), the participants had to estimate the remaining 5 candle sizes. We found that size estimations followed an inelastic power function (with $b < 1$) and that estimations were even less elastic

when size changed in 3D ($b = .63$) than when it changed in 1D ($b = .87$).

Study 2 examined the effect of size change dimensionality on willingness to pay for size increases and the effect of providing size information. The study involved 6 (package size, within-subjects) \times 2 (dimensionality: 1D vs. 3D) \times 2 (availability of size information: available vs. unavailable) mixed design with a control condition. The participants saw 6 sizes of two actual products (wool and dishwashing detergent), which increased in 1D or in 3D. Participants in the unavailable-information condition saw the products and provided both size estimations and WTP for each size of each product. Participants in the available-information condition knew the actual product sizes and only provided their WTP. Participants in the control condition did not see the products but knew their actual sizes and provided their WTP. We found that, as in Study 1, size estimations were inelastic, especially when size increased in 3D ($b = .68$) vs. 1D ($b = .93$). Partly due to size estimations, WTP also followed an inelastic power function, with lower elasticity in 3D ($b = .56$) than in 1D ($b = .72$), even when the actual package sizes were available ($b = .69$ in 3D vs. $b = .83$ in 1D).

Study 3 examined the effect of the dimensionality of size change on consumption dosage. The participants increased or decreased the doses of three products provided in containers (a vodka glass, a cocktail glass, and an infant syrup cup). Participants used either cylindrical containers (1D condition, volume changes in height alone) or conical containers (3D condition, volume changes in height and diameter). Because the participants were less sensitive to size changes in 3D vs. 1D, they poured more of each product into and out of conical vs. cylindrical containers.

Study 4 consisted of two field experiments examining how the dimensionality of size change in real product packages affects people's supersizing (Study 4a) and downsizing (Study 4b) decisions. In Study 4a, participants made a choice between a control beverage brand (beer or cider) in a 22 Cl mug and a target brand which was either in a similar 22 Cl mug (control condition) or in a 33 Cl mug, supersized in 1D (height) or in 3D (height and diameter). The choice share of the target brand was significantly higher in the 1D condition (100%) than in the 3D (68%) or the control (55%) condition. In Study 4b, consumers chose between regular-size packages of regular Coke (50 Cl) and popcorn (94 Cl) and smaller packages of diet Coke (33 Cl) and popcorn (63 Cl) downsized in 1D or in 3D. The choice share of the downsized option was higher in the 3D condition (69%) than in the 1D condition (48%).

The final study was a field survey of the prices of regular and large product packages supersized in 1D or in 3D. Across 70 pairs of regular and supersized packages in 4 product categories (cosmetics, sandwiches, beverages and snacks), we found that the elasticity of price to size change was lower for packages supersized in 3D (.55) than for packages supersized in 1D (.88).

In sum, we found that people underestimate the magnitude of product size changes, especially when they occur in 3D. Providing size information helps consumers improve their price expectations and make better resizing decisions, even if it doesn't eliminate dimensionality effects. These effects also explain why supersizing is more effective in 1D and downsizing is more effective in 3D.

Frayman, Bruce J. and William E. Dawson (1981), "The Effect of Object Shape and Mode of Presentation on Judgments of Apparent Volume," *Perception and Psychophysics*, 29 (1), 56-62.

Nielsen, Samara Joy and Barry M. Popkin (2003), "Patterns and Trends in Food Portion Sizes, 1977-1998," *Journal of American Medical Association*, 289 (4), 450-53.

Stevens, Stanley Smith (1986), *Psychophysics: Introduction to its Perceptual, Neural, and Social Prospects*, Oxford, UK: Transaction Books.

Social Influence and Social Goals

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Dinner Out with Independent Self-Construal Consumers: Wow This is Bad Wine

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Imagine that you are asked to select a restaurant for dinner with a group of friends. Which restaurant do you choose? We usually know what to choose for ourselves, but what happens when there are others involved? More specifically, how do you choose when you must consider not just your own preferences but the predilections of those around you?

As consumers we are often required to choose collectively, on behalf of ourselves and others. We decide on behalf of others when we select the restaurant for a dinner outing, pick the toppings for a shared pizza or choose the movie for a group jaunt to the theater. Despite the frequency of such decisions, existing research has focused primarily on choices made for and by individual consumers (Bettman, Luce and Payne 1998). Decisions in a group context have been addressed mainly in research on family decision-making (Corfman and Lehmann 1987) and in the negotiations literature in terms of collective decisions made for and by the group (Oetzel 1998). In this research, we attempt to understand some of the factors which influence consumption choices on behalf of others.

We focus on self-construal and expertise, both factors which have a substantial impact on consumer behavior (West, Brown and Hoch 1996; Aaker and Schmidt 2001). Self-construal theory proposes that individuals differ fundamentally in how they define the self; independents see themselves as unique and autonomous while interdependents define themselves in the context of their social relationships, roles and duties (Markus and Kitayama 1991). Research on expertise suggests that consumers may also differ in their levels of knowledge concerning particular consumption decisions (Alba and Hutchinson 1987). In two studies, we examine the influence of these factors on a common decision made on behalf of others: choice of wine for the table at a restaurant.

The wine choice situation requires individuals to balance their own preferences with those of the group—but unlike past research that investigates how individuals' self-choices are influenced by others' choices (Ariely and Levav 2000), we put individual and group preferences in conflict by asking individuals to make a choice for the entire group and not just themselves. We expect that independents will choose better (more expensive) wines of the type of wine they prefer (e.g., red versus white), sacrificing the group's welfare to maximize their own utility. Interdependents should make more balanced choices and choose bottles that are equally expensive; they may even self-sacrifice by choosing more expensive bottles of the type they prefer less.

We conducted the studies online, using a national sample of participants who self-identified as wine drinkers. Participants read that they went out to dinner with a group of friends, and that they had been elected to choose the wine for the evening – one bottle of red and one bottle of white – and that they were not to exceed a total budget of \$110. Individuals then viewed a real wine list and selected one red and one white wine; we asked them to indicate the prices of the wines and to rate the quality of the two wines. We measured preferences for red and white wine by asking how often participants drank red versus white wine, and we measured self-construal (Singelis 1994). In Study 2, we also asked a number of wine-related questions to ascertain individuals' expertise.

As an anecdotal illustration of our predicted effects, in Study 1, one strongly independent individual, a white-wine drinker, disregarded our instructions and selected two bottles of white wine, ignoring the group and satisfying his own preferences (he was excluded from our analysis). Our major dependent variables were the prices of the two bottles of wine individuals selected. We conducted a repeated measures analysis on the prices of red and white wine, using self-construal, wine preference, and expertise as independent variables. In both studies 1 and 2, we found similar results. First, we found an interaction between self-construal and wine preference. As predicted, independents' wine choices were influenced strongly by their preferences: the more they preferred red (white) wine, the more expensive a bottle of red (white) wine they chose. Interdependents chose more equally priced wines regardless of their preferences—in fact, they chose slightly more expensive bottles of the wine they did not prefer.

In Study 2, we measured expertise and found a three-way interaction between self-construal, wine preference, and expertise, such that expertise influenced certain individuals' wine choices but not others. Independent novices were the most self-interested, choosing red and white wines that were as expensive as possible, depending on their wine preferences. Independent experts also significantly increased the prices of red and white wines they chose according to their own preferences, but did so to a lesser degree than novices. Interdependent experts, on the other hand, chose wines of equal prices regardless of their own preferences, while interdependent novices actually sacrificed their own interests and chose a more expensive wine of the color they did not prefer.

Importantly, these results are not driven by individuals' assumptions about others' preferences—independents who liked red wine did not choose more expensive red wines because they assumed everyone at the table would be drinking red wine, just like them. Most participants thought the break down of red versus white wine drinkers at the table would be about 50/50, and these predictions did not differ according to self-construal.

Our studies suggest that independents sacrifice others' interests for their own and behave selfishly even when making decisions for a group. These findings raise a number of interesting questions for future research. What motivated independent experts in our study to make less biased choices for the group? What might encourage independent individuals to make better group choices? One could manipulate group characteristics to answer some of these questions: for example, what if the group is comprised of wine experts vs. novices, or red vs. white wine drinkers? Manipulating these characteristics will uncover the dynamics that underlie individuals' choices on behalf of others.

In conclusion, when selecting someone to make a decision for other people, choose individuals with interdependent self-construals—or you might end up drinking house wine while they enjoy an award winning blend.

You Are Great but I Am Fussy Because I've Got Company: The Role of Social Goals in Consumers' Service Experience

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Introduction. This research examines a service context where personalized services can produce a backlash effect amongst consumers and suggests strategies for managing the negative fallout of such transactions. Most research suggests that tailoring services to individual customers enhances the overall service experience and raises service quality perceptions (e.g., Mittal and Lassar 1996; Parasuraman, Zeithaml and Berry 1994). In contrast, we are interested in potential negative influences of these types of experiences. In particular, we suspect that remembering and reminding customers of their previous ordering information may have negative consequences, although such efforts are meant to establish bonding or form a connection between a service provider and customers (Price and Arnould 1999; Price, Arnould and Tierney 1995).

Conceptual Framework. Drawing from literature on impression management (Leary 1995), as well as research on embarrassment and goal activation theory (Bargh 1982; 2002), we propose that a relationship-oriented approach can be appreciated and rewarded by customers only when such efforts (e.g., reminding customers of their past purchase patterns and using this information for making recommendations) do not jeopardize their social goals (e.g., impression management in social settings). Impression management refers to people's fundamental need for portraying a positive image to others (Edelmann 1981; Leary 1995). Once activated within social contexts, impression management goals persistently dictate consumers' information processing, evaluation, and decision making (Bargh 1982; 2002), thus sensitizing them to aspects of service encounters that fulfill or interfere with goal pursuit. This other-focus can engender negative emotions such as embarrassment when impression management goals (e.g., of portraying a health conscious image to a dinner companion) are hampered by the public disclosure of personal information (e.g., a past pattern of consuming unhealthy foods). These negative effects are only expected to occur when impression management goals are triggered (e.g., in the company of a romantic partner), but not otherwise (e.g., in the company of an old friend). A self-focus in the latter case is expected to lead to an appreciation of service provider efforts and enhanced service evaluations. These propositions are tested in the first experiment. Strategies for managing negative fallouts from the public disclosure of potentially embarrassing information are addressed in a second experiment.

Studies. In Study 1, we tested the above propositions with a 2 (server connectedness: reminder of previous order, no reminder) by 3 (impression management goal: dining with a friend, with a date, with a date who is a fitness instructor) between-subjects experimental design. One hundred and fifty nine undergraduate students from a major mid-western university participated in the study in exchange for course credit. Participants were asked to read a hypothetical paper-based scenario about a service encounter within a restaurant setting, followed by a short survey measuring the subjects' evaluation of the service encounter and the level of embarrassment they experienced. In the experiment, *Server connectedness* was manipulated via the extent of personalized interactions between the server and customer. In the *low server connectedness* condition, the server recommended a dish as one of the specials of the day. In the *high server connectedness* condition, the server was said to remind the participants of a dish ordered several times in the past. A hypothetical dish named "Meat Lovers' Deep Fried Jumbo Platter" was used based on results of a pretest within an independent sample of 27 respondents which indicated that such a dish would be perceived as greasy and unhealthy. *Impression management goal* was manipulated by depicting a dinner companion as being either an old friend (in whose company impression management goals should remain dormant) or a date (in whose company impression management goals should be activated; e.g., Bobra and Pandy 1984). A third condition where a specific impression management goal is examined was also added—i.e., an impression management goal of appearing health conscious in the company of a dinner date who is a fitness instructor.

As proposed, ANOVA results showed that when social goals were dormant (i.e., dining with an old friend), server connectedness did not impact felt embarrassment ($F < 1$). However, when the impression management goals were triggered (in the date condition), rising server connectedness increased feelings of embarrassment ($M_{low\ connectedness} = 1.93$, $M_{high\ connectedness} = 3.31$, $F(1,153) = 9.02$, $p < .01$). When the specific impression management goal of appearing health conscious was activated (in the fitness instructor date condition), participants displayed even greater sensitivity to the disclosure of past unhealthy choices ($M_{low\ connectedness} = 2.61$, $M_{high\ connectedness} = 4.43$, $F(1,153) = 19.48$, $p < .001$). These results were further confirmed on testing the impact on service evaluations. When impression management goals were dormant, greater server connectedness enhanced service evaluations despite the disclosure of socially undesirable information ($M_{low\ connectedness} = 5.10$, $M_{high\ connectedness} = 5.89$; $F(1,153) = 3.39$, $p = .06$). In this case, consumers are more self-driven and less sensitive to information that may affect their image in the minds of others. When the impression management goal of appearing health conscious was activated, disclosure of information that impeded this goal mitigated service evaluations ($M_{low\ connectedness} = 5.39$, $M_{high\ connectedness} = 4.28$, $F(1,153) = 1.41$, $p < .001$). For general impression management goal activation, however, no influence of server connectedness on service evaluations was found ($F(1,153) = 1.31$, $p > .10$).

A post-hoc ANCOVA with embarrassment as the covariate indicated that embarrassment significantly mediated the relationship between the independent variables and service evaluations. While embarrassment had a significant direct effect on evaluations ($F(2,153) = 19.22$, $p < .001$), the addition of embarrassment as a covariate within the overall analysis eliminated the significance of the two-way interaction effect of server connectedness and goal activation (from $F(2,153) = 6.63$, $p < .001$, to $F(2,153) = 3.03$, $p > .10$). In addition, a double-mediation analysis was conducted (Preacher and Hayes 2008) where measures of impression management and health consciousness were tested as mediators of the relationship between the independent and dependent variables. This allowed us to gauge the independent effects of these measures (please see table 1). Results indicated that managing an impression of being health conscious (triggered within the fitness instructor date condition) was more instrumental in service evaluation formation than a general impression management goal (triggered within the general date condition).

In Study 2, we examined the impact of context-driven versus provider-driven service failure attributions on service recovery. According to Leary (1995) and Leary et al. (1996), both self-initiated and other-initiated strategies are capable of easing people's feelings of embarrassment. We expected that when social goals are activated, other-initiated strategies would be more effective than self-initiated strategies in diverting attention from the consumer (that engages in socially undesirable actions) to the context (a service provider that may have made a mistake). The resultant change in attributions should make the focal person appear less culpable. This hypothesis was tested within a 2 (server vs. consumer initiated strategy) by 2 (remedy strategy: aggressive vs. less aggressive) between-subjects experimental design. One hundred and nineteen undergraduate students participated in this study. The same scenario using the high server connectedness and

fitness instructor date was adopted. The *aggressive remedy strategy* was manipulated by depicting the server as admitting to mistaking the customer for someone else, or by having the focal consumer pointing out that the server has mistaken them for someone else. The *less aggressive remedy strategy* was manipulated by having the server (consumer) talk about the availability of a healthy option after the reminder of a previously unhealthy choice via the statements: “Oh, well. You (I) might have very different cravings today. You (I) might want to try the salad specials. They are very good.” The results supported our hypotheses that server-initiated actions, compared to consumer-initiated actions, were more effective in making subjects feel better ($M_{server-initiated} = 4.52, M_{self-initiated} = 3.81, F(1,115) = 4.13, p < .05$); feel that they can avoid losing face in front of their date ($M_{server-initiated} = 4.56, M_{self-initiated} = 3.88, F(1,115) = 3.30, p < .10$), and evaluate the service experience more positively ($M_{server-initiated} = 4.79, M_{self-initiated} = 3.54, F(1,115) = 17.40, p < .001$). In particular, significant interaction effects revealed that the server-initiated aggressive remedy was most effective, and the consumer-initiated aggressive remedy was least effective in restoring a positive self-image ($F(1,115) = 7.17, p < .01$; server-initiated remedy: $M_{aggressive} = 4.89, M_{less\ aggressive} = 4.15, p < .05$; consumer-initiated remedy: $M_{aggressive} = 3.48, M_{less\ aggressive} = 4.42, p < .10$).

Discussion. Our research investigates service failure and recovery in a unique service context within which we can integrate theories and constructs in goal activation theory and impression management theory into an experimental exploration of service interactions. This approach enriches our understanding of the complex influences that can determine the outcome of a service experience.

Table 1. Double mediation analysis of general impression management goals and health consciousness

DV	Mediators	IV to mediators		Mediators to DV		Indirect effect of IV on DV through proposed mediators		Direct effect of IV on DV		Total effect of IV on DV	
		Coeff.	p	Coeff.	p	Coeff.	p	Coeff.	p	Coeff.	p
Embarrassment	TOTAL					.15	.01	.31	.00	.46	.00
	Impression management	.38	.00	.16	.16	.06	.16				
	Health consciousness	.29	.01	.32	.00	.09	.02				
Service evaluation	TOTAL					-.04	.44	-.20	.04	-.24	.01
	Impression management	.38	.00	.08	.44	.03	.44				
	Health consciousness	.29	.01	-.25	.00	-.07	.03				

Bargh, J. A. (1982). Attention and automaticity in the processing of self-relevant information. *Journal of Personality and Social Psychology*, 43, 425-436.

Bargh, J. A. (2002). Losing consciousness: Automatic influences on consumer judgment, behavior and motivation. *Journal of Consumer Research*, 29, 280-285.

Bohra, K. A. & Pandey, J. (1984). Ingratiation toward different target persons: A Stranger, a friend and a boss. *Journal of Social Psychology*, 122, 217-222.

Edelmann, R. J. (1981). Embarrassment: The state of research. *Current Psychological Reviews*, 1, 125-138.

Leary, M. R. (1995). *Self-Presentation: Impression Management and Interpersonal Behavior*, Dubuque, IA: Brown Communications.

Leary, M. R., Julie, L. L. & Patton, K. M. (1996). The motivated expression of embarrassment following a self-presentational predicament. *Journal of Personality*, 64, 619-636.

Mittal, B., & Lassar, A. M. (1996). The role of personalization in service encounters. *Journal of Retailing*, 72, 95-109.

Parasuraman, A., Zeithaml, V. A. & Berry, L. (1994). Alternative scales for measuring service quality: A comparative

- assessment based on psychometric and diagnostic criteria. *Journal of Retailing*, 70, 201-230.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40, 879-891.
- Price, Linda L. & Arnould, Eric J. (1999). Commercial Friendship: Service Provider-Client Relationships in Context. *Journal of Marketing*, 63, 38-56.
- Price, Linda L. & Arnould, Eric J. and Tierney, Patrick (1995). Gong to Extremes: Managing Service Encounters and Assessing Provider Performance. *Journal of Marketing*, 59, 83-97.

How Negative In-Group Stereotypes Affect Consumers' Judgment Processes: The Role of Trust in Out-group Service Providers

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Many social groups of people are often associated with negative traits, such as incompetence or weaknesses. Society has tried to debunk stereotypes associated with different social groups through education, public discourses, and media. Undeniably, however, evidence from both academic research and everyday stories suggests that negative stereotypes unduly influence people's judgments toward a target, be it a person or a product (Duncan, 1976; Hong & Wyer, 1989; Park & Rothbart, 1982). Specifically, stereotypes figure in the mind of the perceivers and bias their evaluations when generating evaluative judgments toward a target associated with certain negative stereotypes. Although negative stereotypes likely and unduly influence people's judgments, research on the influence of negative in-group stereotypes on consumers has been limited. To fill this gap, this research examines the possibility that consumers, who are aware of negative stereotypes associated with their social groups, may generate judgments mainly based on defensive reactions toward the in-group stereotype. Specifically, we aim to investigate whether negative stereotypes bias the processing of making decisions and why such a biasing effect occurs among stigmatized consumers in the stereotype-relevant consumption context. To examine this issue, we focused on female consumers in the decision making of financial service and the stereotype that females are less competent in mathematics. Thus, we examined how differently female consumers generate judgments when the negative math skill stereotype was salient, compared to other females with no such stereotype activated or males who the stereotype was not related to.

In study 1, in order to activate the negative in-group stereotype, we varied the background of an advertisement regarding financial advisors. In the salient negative stereotype condition only, we embedded math-related signs and equations as a part of the background of the ad. Also, we varied the gender of a financial advisor featured in the advertisement. A 2(Participant Gender: Male vs. Female) × 2(Negative In-group Stereotype: Salient vs. Control) × 2(Gender of Financial Advisor: Male vs. Female) design run on consumers' liking ratings generated a significant three-way interaction ($F(1, 126) = 4.13; p < .05$). Specifically, we found that when the negative in-group stereotype was made salient, female (male) participants preferred female (male) financial counselor to male (female) one ($F(1, 126) = 5.64; p < .05$). However, when the negative in-group stereotype was not salient, no significant effects or no stereotype-based judgments were found.

In Study 2, we further examined whether the pattern obtained in study 1 was indeed due to the salience of negative in-group stereotype and consumers' defensive reactions to it. In this study, using only female participants, we measured females' chronic salience of negative in-group stereotypes. A median split (median = 3) was used to identify two levels of the degree to which females endorsed the math related gender stereotype. Using a 2(Gender of Financial Counselor: Male vs. Female) × 2(Stereotype Belief: Strong vs. Weak) design, we found that females who strongly believed that females are less competent in mathematics ironically preferred female versus male financial counselors, as expected. This tendency was not found among females who do not hold such stereotypic belief. In addition, a separate regression analysis performed with stereotype belief as a continuous variable confirmed these results ($\beta = -.513; p < .05$). Taken together, the results suggest that female consumers prefer female financial counselor, when the negative stereotype that females are less competent in mathematics is salient – both situationally and chronically. It is worthy to note that choosing female financial counselor would be quite irrational if someone strongly believes that that the females are less competent in mathematics, particularly for a task for which math-related skills are deemed important, as confirmed in our pretest.

This ironical pattern of judgment may be due to the decreased level in trust toward male versus female financial advisor, following that his superior skills over females can grant him an opportunity to take advantage of them who have limited information and skills (Rousseau, Sitkin, Burt, & Camerer, 1998; Vohs, Baumeister, & Chin, 2007). Thus, presumably, based on this lack of trust in a male counselor as a fair partner, female consumers could prefer the fellow female financial counselor.

In Study 3, we tested this hypothesis (i.e., the role of trust), using a 2(Participant Gender: Male vs. Female) × 2(Gender of Financial Advisor: Male vs. Female) × 2(Self Esteem: High vs. Low) design. The findings from Study 3 further confirmed the previous findings and offered additional insights. Specifically, the females' tendency of preferring female counselors was much stronger among low versus high self-esteem consumers. More importantly, it was found that the level of trust mediates the influence of gender and stereotype onto judgments toward female versus male counselor. In other words, the severity of negative in-group stereotype among females lower the perceived trust granted to a male counselor, which then leads to the reduced preference toward the male financial counselor. Given that we did not find any evidence for other alternative mechanisms, such as attribute weight changes (von Hippel, 2005; Stoutemyer & Steele, 1996) and sub-typing (Biernat & Manis, 1994; Kunda & Oleson, 1995), trust appears to be the most viable explanation in the context of financial decision making.

Taken together, the results provide converging evidence that when a negative in-group stereotype is activated, either chronically (Study 2) or contextually (Studies 1 and 3), stereotyped consumers engage in defensive reaction which influences their trust in out-group service providers in a relevant domain. Such a motive appears to result in a unique (and presumably irrational) judgment which would not otherwise occur. Furthermore, this tendency is more pronounced among those who hold low self-esteem.

Theoretically, this research can shed light on why stereotyped consumers may make suboptimal decisions, by suggesting that trust in out-group members is one of the key factors affecting the stereotyped consumers' judgment. Additionally, the results of this proposed research have potential implications for public policy officials, inasmuch as decision making under the influence of stereotypes is subject to inherent biases. As such, regulators may be interested in protecting vulnerable consumers from being manipulated by dishonest merchants.

- Biernat, M., & Manis, M. (1994). shifting standards and stereotype-based judgments. *Journal of Personality and Social Psychology*, 66(1), 5-20.
- Duncan, B. L. (1976). differential social perception and attribution of intergroup violence: testing the lower limits of stereotyping of blacks. *Journal of Personality and Social Psychology*, 34(4), 590-598.
- Hong, S.-T., & Wyer, R. S., Jr. (1989). effects of country-of-origin and product-attribute information on product evaluation: an information processing perspective. *Journal of Consumer Research*, 16(September), 175-187.
- Kunda, Z., & Oleson, K. C. (1995). maintaining stereotypes in the face of disconfirmation: constructing grounds for subtyping deviants. *Journal of Personality and Social Psychology*, 68(4), 565-579.
- Park, B., & Rothbart, M. (1982). perception of out-group homogeneity and levels of social categorization: memory for the subordinate attributes of in-group and out-group members. *Journal of Personality and Social Psychology*, 42(6), 1051-1068.
- Rousseau, D. M., Sitkin, S. B., Burt, R. S., & Camerer, C. (1998). not so different after all: a cross-discipline view of trust. *Academy of Management Review*, 23, 393-404.
- Vohs, K. D., Baumeister, R., & Chin, J. (2007). feeling duped: emotional, motivational, and cognitive aspects of being exploited by others. *Review of General Psychology*, 11(2), 127-141.
- von Hippel, W., von Hippel, C., Conway, L., Preacher, K. J., Schooler, J. W., & Radvansky, G. A. (2005). coping with stereotype threat: denial as an impression management strategy. *Journal of Personality and Social Psychology*, 89(1), 22-35.

Environmental and Economic Influence on Consumer Spending

Chair: Kyle Murray, University of Alberta, Canada

Sweatshop Labor is Wrong unless the Shoes are Really Cute: Motivated Moral Disengagement

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Though many people would say they care about ethical issues, most consumers in America, at one point of another, have purchased products made with sweatshop labor, or that have contributed to harm in other ways. Though corporations who make these products are usually the subject of scrutiny, very little attention has been focused on the role that consumers play in propagating a system that implicates harm (Devinney et al. 2007). Given that consumer demand (to a large extent) drives market offerings, it's curious that little effort has been directed towards understanding what drives consumers' demand for products that are not produced in socially responsible ways.

Studies in this area suggest that self-reported measures of caring often don't mirror behavior (Devinney et al. 2007), and possessing "consumer sophistication" in thinking is no guarantee that consumers actually participate in ethical buying practices (Titus and Bradford, 1996). Evidence of such discrepancies can be found by looking at the market. If there was a greater demand for ethical products the market would reflect this. However, ethical products including fair trade, organic food, products free from child labor, and legally logged wood have market shares of less than 2-3% (Ryle 2004, Coughlan 2003). In the case of sweatshop labor, companies may find the savings they gain to be higher than any amount of negative publicity or consumer backlash (Adams 2002, Iwanow, et al. 2005).

Why do people profess not to like sweatshop labor but tacitly approve of it through their consumption choices? Despite our best intentions to care, we may be engaging in processes of moral justification (Haidt 2001), and moral disengagement (Bandura et al. 1996) in order to accept harms that result from our consumption choices. Our desires and wants are informed by biases and often occur at an unconscious level (Zajonc 1980). Furthermore we can only infer why we make judgments and decisions leading to actions. Scholars suggest that people make post hoc (after-the-fact) inferences about the causes of their feelings and responses (Nisbett & Wilson 1977). Along these lines our moral intuition are often immediate affective reaction and we may engage in post-hoc moral rationalization to justify our initial feelings (Haidt 2001). As Haidt suggests "Moral reasoning is not left free to search for truth but is likely to be hired out like a lawyer by various motives, employed only to see confirmation of preordained conclusions." We may offer justifications for why our desires are morally correct rather than being based on any objective moral reality. These justifications enable people to consciously continue to think of themselves as good people despite engaging in unethical consumption behavior (Devinney et al. 2007) and are used to reduce cognitive dissonance (Bandura 1996, Festinger 1957, Festinger and Carlsmith 1959) between one's actions and one's self-concept (Aronson 1969).

In the context of moral judgments, Bandura and his colleagues (1996) have devised a framework to understand how moral disengagement mechanisms (including moral justifications) work in the context of violence and war (Bandura 1999, Bandura et al. 1996) as a dispositional attribute. While moral disengagement has been explored in the context of violence, little empirical work has been done in consumer contexts. Consumers also may encounter cognitive dissonance between their self-concept (I am a good person), and their purchase behavior (I buy products that cause harm), and may engage in moral disengagement strategies so they can continue behavior that is not congruent with their self-concept.

In two studies, we look at how moral disengagement strategies are employed in the context consumer behavior specifically looking at sweatshop labor. Four measures of moral disengagement were adapted from Bandura's scale to apply to sweatshop labor, and collapsed into one measure to be used as a dependent variable (Cronbach's alpha of .935) rather than a dispositional trait. In study 1, we explored attitudes towards a hypothetical pair of jeans that were either produced with a high amount of sweatshop labor, or with no sweatshop labor. Participants were further dividing into high liking and low liking groups based on their indicated liking for the product. As predicted, there was a significant interaction between the sweatshop labor factor and the desirability factor ($F=15.93$, $p<.001$). In the high sweatshop labor condition those indicating a high liking for the product morally disengaged significantly more than those who indicated a low liking for the product (3.91 vs. 2.12, $t=5.98$, $p<.001$) where in the no sweatshop labor condition there was no

significant difference between the two (2.29 vs. 2.5, $t=.542$, ns.).

While in study 1 we measured liking in study 2 we manipulated it. In a 2 (high sweatshop labor versus no sweatshop labor) * 2 (high desirability versus low desirability) between subjects design, participants were randomly assigned to one of four conditions. Participants were confronted with a hypothetical pair of Nike shoes that were either framed as being low in desirability or high in desirability, and then told whether or not sweatshop labor was used to make them. There was a significant overall main effect where participants morally disengaged significantly more in the high desirability condition than in the low desirability condition (2.95 vs. 2.35, $t=3.0$, $p<.005$). When adding sweatshop labor as a factor in the analysis, there was a significant difference between high and low desirability in the high sweatshop labor condition (3.07 vs. 2.22, $t=3.21$, $p<.005$) while there was no significant effect in the no sweatshop labor condition (2.77 vs. 2.49, $t=.96$, ns.).

Two studies confirm that while we may think that morality is a stable trait in consumer contexts, it is not – it's motivated by the presence of harm and our own desires. When sweatshop labor is present, moral disengagement is higher when liking/desirability for a product is higher. However, when sweatshop labor is not present, desirability does not appear to matter. These studies show that mechanisms of moral disengagement can be recruited to reduce dissonance between one's self-concept (I am an ethical person), and one's actions (but I desire products made with sweatshop labor), thus informing why demand for ethical products remains low.

The Effect of Weather on Consumer Spending

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The influence of weather on behavior has been explored in fields such as finance and psychology. For instance, research in finance attributes the strong seasonal anomaly present in stock returns to the effect of weather on mood (Kamstra et al 2003, Cao and Wei 2005). Furthermore, substantial research in psychology shows that weather can influence an individual's mood. However, the influence of weather on behavior has largely been ignored in the marketing literature. In our research, we employ a mixture of methods and types of data to investigate this issue. We begin with a review of the relevant literature.

Influence of Weather on Mood. Substantial research in psychology has confirmed that weather can influence an individual's mood. For instance, Sanders & Brizzolara (1982) showed that low levels of humidity are associated with positive mood, while Cunningham (1979) and Schwarz & Clore (1983) show that high levels of sunlight are associated with positive mood. Meanwhile, laboratory research – Kripke (1998), Stain-Malgreem et al (1998), Leppamaki et al (2002, 2003) has shown that artificial sunlight improves mood.

Influence of Mood on Consumer Spending. Research examining this issue has produced mixed results (Luomala and Laaksonen 2000). However, one fairly consistent theme is that people in a negative mood tend to self-reward through consumption and purchasing more than controls. For instance, Thayer, Newman, and McClain (1994) found that drinking caffeinated beverages and eating were two short-term activities that participants engaged in to change a bad mood. Similarly, Garg, Wansink and Inman (2007) show that, in order to manage their negative feelings, people eat larger amounts of hedonic foods (e.g. candy).

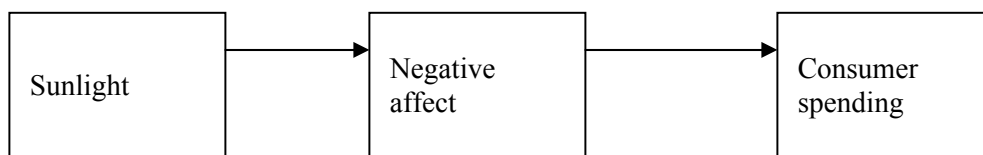
It should be noted that contradictory evidence exists. Underwood et al (1973) found that sad participants self-rewarded less than happy participants. Also, in a field experiment, Spies, Hesse and Loesch (1997) found that consumers whose mood became more negative spent less time and money on spontaneous purchases than consumers whose mood became more positive. The results of the literature reviewed above provides evidence that mood, and in particular, negative affect, influences consumer spending.

Influence of Weather on Consumer Spending. The most direct evidence for the impact of weather on consumer behavior comes from more micro level studies. In an early study, Steele (1951) regresses daily sales of a department store on weather variables, and finds negative effects of snow on the ground, precipitation, and cooling power. Interestingly, the

author finds a positive effect of percentage of sunshine hours on daily sales early in the spring but a negative effect later in the spring. Parsons (2001) examined the impact of weather on daily shopping behavior and found that weather does indeed influence consumers' behavior. However, he didn't report sales data and utilized the number of shoppers as the DV. More importantly, Parsons' (2001) data doesn't address the psychological mechanisms underlying the effects of weather on sales.

The Mediating Effect of Mood. The literature reviewed above suggests that weather influences mood, that mood influences consumer spending, and that weather influences consumer spending. However, further analyses of these relationships indicates that sunlight is key in improving mood. Specifically, laboratory research reviewed previously suggests that sunlight improves mood by reducing negative affect. Furthermore, research examining the impact of mood on consumer spending indicates that peoples' level of negative affect is key to this relationship. Also, the little research examining the relationship between weather and consumer spending suggests that sunlight seems to have an important impact on consumer spending.

On the basis of this analysis, we propose the following relationship: negative affect mediates the relationship between sunlight and consumer spending.



Next, we review the studies we have conducted.

Study 1. Here, the purpose was to establish a relationship between weather and consumer spending. We examine daily sales data from one small independent retail store that sells tea and related accessories.

We ran a random effects model, with the log of sales as the DV. We found main effects for average temperature, snow fall, and humidity, as well as an interaction between average temperature and sunlight. The interaction was such that the effect of sunlight on sales is positive for lower temperatures, but negative for higher temperatures.

Study 2. In this study, participants recorded their daily consumption behavior for a variety of regularly purchased products over a 4 week period. Participants reported their mood at the end of each day using the PANAS scale.

We found that sunlight has a negative influence on negative affect – as sunlight increases, negative affect decreases. However, sunlight does not have a significant effect on positive affect. We also find that as negative affect decreases, tea consumption increases. However, positive affect does not impact tea consumption.

Study 3. In this study, we examined the effect of sunlight on consumers' mood and willingness to pay for a variety of products (green tea, orange juice, gym membership, airline ticket, newspaper subscription) in a laboratory setting. Sunlight was manipulated with a sun lamp, which was a desk lamp that produced light very similar in wave length to natural sunlight. Our results show that participants in the sunlight condition were willing to pay significantly more than those in the no sunlight condition. We also find that negative affect fully mediates the relationship between sunlight and willingness to pay. We find strong support for the mediating effect of negative affect.

Overall, this research makes an important contribution to our understanding of consumer behavior by demonstrating the mechanisms that underlie the effect of weather on consumer spending. Our results also provide an alternative to prior theories of the effects of in-store lighting. Specifically, the dominant theoretical model, the Mehrabian-Russell (1974) (M-R) model of approach-avoidance behavior, posits that brighter lighting increases arousal, and that the combination of pleasantness and arousal will positively influence consumers' shopping behaviors. However, our results suggest that it is not so much arousal or pleasure, but the mitigation of negative affect, which explains the positive effect of high levels of illumination on consumer spending.

Successfully Ignoring Retracted Information in the Marketplace: Evidence from a Consumer Reports' Oops

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Can people voluntarily ignore information they possess? Rational models assume the answer to this question is yes, but an overwhelming amount of experimental research suggests, instead, that the answer is no. Probably the best known finding in such literature is the hindsight bias, where participants told of the occurrence of an outcome overestimate how predictable that outcome would seem to people not privy to such information (Fischhoff, 1975; for a review see Hawkins & Hastie, 1990). Other research has shown that people: respond to 'feedback' they know to have been randomly generated and hence non-diagnostic (Anderson, Lepper, & Ross, 1980; Ross, Lepper, & Hubbard, 1975), are influenced by numerical anchors even when these are judged by them to be irrelevant (Ariely, Loewenstein, & Prelec, 2003; Northcraft & Neale, 1987; Tversky & Kahneman, 1974), and overweight their own behavior when making inferences about others' (Krueger & Clement, 1994; Ross, Greene, & House, 1977).

Despite the rich experimental literature on the issue of voluntarily ignoring information, it has not been investigated outside the laboratory; its prevalence in real-life situations has hence not been assessed. Considering that most new information consists of revisions to existing knowledge, the question of whether consumers in the real-world are able to voluntarily ignore information is of great relevance to our understanding of consumer behavior.

This paper provides the first examination of the 'curse of knowledge' outside the laboratory. It does so exploiting an involuntary natural experiment performed by Consumer Reports®, the leading publication providing guidance to consumers in their purchase of goods and services. On January 4th 2007 they released a new report on "infant safety seats" (carseats). The reported safety of carseats changed dramatically with respect to their own previous assessment published two years earlier (the rank correlation of safety between reports was $-.08$). Exactly two weeks after their new ratings were made public, however, Consumer Reports® retracted the story because the crash simulations behind them were flawed. This paper examines the ability of people to ignore information in their possession by studying how a market for carseats responded first to the release of the new safety ratings and then to their retraction. In particular, it analyzes the outcomes of 2016 online auctions for carseats taking place during a 12 week period. Auctions are particularly appropriate for assessing how markets respond to information because auction prices (unlike those set by retailers) are determined on a nearly continuous basis, providing a rich source of data to follow market dynamics. Furthermore, by analyzing bids, one can obtain richer information regarding people's valuations than by looking at yes/no decisions responding to a fixed retailer price.

The main findings from this paper are that (i) following the release of the new safety-rating, prices responded virtually immediately: for every position lost in the ranking, a carseat's price dropped around 3 percentage points (the average model moved 4.13 slots between the 2005 & 2007 rankings) and (ii) most importantly, prices returned to baseline levels also virtually immediately after the retraction. Both patterns are documented not only for final prices, but also for non-winning bid amounts across the full spectrum of valuations.

I interpret these results as evidence that carseat buyers were able to willfully ignore information once it was retracted. I explore three alternative explanations in some detail. The first is that the impact of information on behavior may depreciate through time (due to decreasing attention or memory for example), and that the timing of the retraction may have, by chance, coincided with the full depreciation of the impact the new ratings had. Contrary to this explanation, however, there is no trend in prices in the days between the release and retraction; they start returning to baseline only after the retraction.

The second is that consumers buying a carseat after the retraction may have never learnt of the retracted rankings in the first place. Weakening the plausibility of this explanation I document that both the original story and its retraction received ample media coverage. In addition, one carseat model failed a test which was not retracted, i.e. its information shock remained valid after the retraction. The negative information for this carseat, however, became just as inaccessible as that of the other models because it was jointly removed from Consumer Reports' website. At odds with the unawareness story, prices for this carseat remained stable following the retraction.

The third alternative explanation I consider is that it is sellers' responses to the new information that drive the market changes, not those of buyers. Contrary to this explanation I find no systematic change in the number of auctions of

different carseat models offered before and after the information shocks, nor on the share of such auctions which offer a new vs. used item, nor on the starting price sellers set for their auctions.

- Anderson, C. A., Lepper, M. R., & Ross, L. (1980). Perseverance of Social Theories - the Role of Explanation in the Persistence of Discredited Information. *Journal of Personality and Social Psychology*, 39(6), 1037-1049.
- Ariely, D., Loewenstein, G., & Prelec, D. (2003). Coherent Arbitrariness: Stable Demand Curves without Stable Preferences. *The Quarterly Journal of Economics*, 118(1), 73-105.
- Fischhoff, B. (1975). Hindsight Not Equal to Foresight - Effect of Outcome Knowledge on Judgment under Uncertainty. *Journal of Experimental Psychology-Human Perception and Performance*, 1(3), 288-299.
- Hawkins, S. A., & Hastie, R. (1990). Hindsight - Biased Judgments of Past Events after the Outcomes Are Known. *Psychological Bulletin*, 107(3), 311-327.
- Krueger, J., & Clement, R. W. (1994). The Truly False Consensus Effect - an Ineradicable and Egocentric Bias in Social-Perception. *Journal of Personality and Social Psychology*, 67(4), 596-610.
- Northcraft, G. B., & Neale, M. A. (1987). Experts, Amateurs, and Real-Estate - an Anchoring-and-Adjustment Perspective on Property Pricing Decisions. *Organizational Behavior and Human Decision Processes*, 39(1), 84-97.
- Ross, L., Greene, D., & House, P. (1977). False Consensus Effect - Egocentric Bias in Social-Perception and Attribution Processes. *Journal of Experimental Social Psychology*, 13(3), 279-301.
- Ross, L., Lepper, M. R., & Hubbard, M. (1975). Perseverance in Self-Perception and Social Perception - Biased Attributional Processes in Debriefing Paradigm. *Journal of Personality and Social Psychology*, 32(5), 880-892.
- Tversky, A., & Kahneman, D. (1974). Judgment under Uncertainty - Heuristics and Biases. *Science*, 185(4157), 1124-1131.

Shaken to the Core: Consumer Response When Beliefs are Threatened

Chairs: Keisha Cutright, Duke University

Eugenia Wu, Duke University

Discussion Leader: Naomi Mandel, Arizona State University

Coping with Guilt and Shame: The Effects on Persuasion and Information Processing

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Nidhi Agrawal, Northwestern University

Consumer research in recent years has explored how emotional experiences impact consumer attitudes and behaviors. This research has documented ways in which emotions might affect information processing and persuasion (Agrawal, Menon, and Aaker, 2007; Tiedens and Linton, 2001). For instance, individuals experiencing specific emotional states that are negative in valence such as anxiety, sadness, or anger might process information differently as a function of these unique negative emotions. One way emotions impact behavior, particularly negative emotions, is through threatening the self and provoking change directed at resolving the negative emotions and alleviating the threat. Such concerns of threat to the self are even greater for emotions such as guilt and shame that are intensely negative and implicate the self as the cause of negative social and moral transgressions.

One theoretical perspective useful for understanding how consumers respond to such threats is found in the literature on coping (Duhachek 2005). Recent research has shown consumers use different processes for coping with various negative emotions such as anger and fear (Duhachek 2005). Agrawal et al. (2007) found a similar tendency where individuals were motivated to reduce or repair their specific emotions of sadness or agitation (e.g., sad individuals ignored stimuli that increased sadness). Taken together, this research suggests that individuals are motivated to cope with or reduce specific negative emotions resulting from threats to the self, and that the means of coping with these emotions varies systematically as a function of the type of threat. Past research has suggested that shame and guilt are distinguished by differences in coping tendencies. Shame is associated with a tendency towards avoidance, whereas guilt produces approach-oriented coping.

Given the differences in coping activated by guilt and shame, it is important to identify when and how such coping strategies interact with the threats contained in guilt and shame appeals to influence the effectiveness of such appeals. In three studies, we try to understand the interaction of threatening emotional appeals and coping strategies related to shame and guilt in the context of anti-drinking advertising appeals. The anti-drinking advertising context is directly related to nature of shame and guilt. These two emotions may be particularly powerful persuasive tools in the context of reducing harmful behaviors, such as binge and underage drinking, because these emotions activate a desire to uphold a moral standard (guilt) or uphold ideals about one's desired self (shame) by threatening one's self perceptions.

In study 1, we test the proposition that exposure to shame-inducing versus guilt-inducing threatening advertising appeals differentially activates the use of either approach or avoidance coping strategies. Priming guilt versus shame activated approach versus avoidance coping respectively.

In study 2, we examined the conditions under which such coping would affect message processing and how such coping strategies would manifest in the processing of threatening appeals. Using a 2 (primed guilt vs. shame) * 2 (threatening vs. threat-alleviating appeal) between subjects design, we demonstrate that coping tendencies affect the degree to which individuals process the ad. We hypothesize that these coping differences will impact persuasion such that engaging in avoidance coping in response to threat will increase persuasion (i.e., lead to lower intentions to binge-drink), despite reduced processing of the ad whereas engaging in approach coping in response to threat will decrease persuasion while increasing message processing. We further predict that these coping tendencies also impact the degree to which individuals are likely to expose themselves to subsequent anti-drinking information. Consistent with this theorizing, shameful individuals' processing and persuasion reflected avoidance coping whereas guilty individuals' response reflected approach coping. Threats to shame seemed more effective in reducing drinking intentions whereas threats to guilt led to greater receptivity to anti-drinking information. These coping driven processing differences only emerged in response to threatening appeals that further exacerbated guilt or shame. When the appeals assuaged the prior emotion instead of

threatening it, coping tendencies did not affect responses.

Study 3 more focally examined the processes by which coping tendencies affect consumer responses to threatening guilt and shame inducing PSA ads. Our differential coping predictions posit that shame will be effectively reduced through avoidance coping. Therefore, consumers' negative thoughts about alcohol should be negatively correlated with a reduction in shame after exposure to a shame-inducing PSA ad. Stated another way, the more negative alcohol-related thoughts shame-laden consumers evoke, the lower the reduction in shame that will result. In contrast, we posit that guilt will be effectively reduced through approach coping. Therefore, consumers' negative thoughts about alcohol should be positively correlated with a reduction in guilt after exposure to a guilt-inducing PSA ad. By demonstrating that specific patterns of cognitive response to anti-drinking advertising produce systematic reductions in shame and guilt, we offer direct evidence of how threats in response to threatening messages are resolved.

This research makes several contributions. First, we identify a key moderator in the activation of coping tendencies used by consumers to resolve these dissatisfying emotions. We find that high threat conditions embedded within PSA ads are necessary to activate these natural coping tendencies. Second, we show that these coping tendencies affect the persuasiveness of anti-drinking appeals in accordance with coping theory. Thus, depending on the context, coping can lead to greater or lower message effectiveness. In doing so, we identify when threatening appeals might lead consumers to perform behaviors that are beneficial or harmful to them. Finally, we show that using coping tendencies results in reduction of self-threatening emotions. Implications for the literatures on specific emotions, coping, and message persuasion will be discussed.

Responding to System Threat through Consumption

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In this age of unceasing social, political and economic turmoil, individuals are increasingly likely to be faced with threatening information about the legitimacy of their socio-political systems. How do they deal with such information? System justification theory (Jost and Banaji, 1994) suggests that individuals are generally motivated to maintain the view that the external system that they interact with (i.e. overarching institutions, organizations and social norms) is fair, legitimate, and justifiable (Kay & Zanna, in press). This tendency has been shown to have a variety of important consequences including support for inequality (Laurin & Kay 2008) and decreased interest in social change (Kay et al. 2008). The present research is designed to explore how this tendency to defend the status quo against threat might also have important consequences for consumption-related behavior. Additionally, this research aims to further enhance system justification theory by introducing important individual difference moderators.

The system justification motive is assumed to help people avoid the psychological threat of perceiving that the system in which they live is illegitimate, unfair, and undesirable (Jost & Hunyady 2002). Consequently, the system justification motive is especially active in contexts which exacerbate this threat (Kay & Zanna, in press). Such contexts include situations where one feels that the legitimacy of the system is being directly attacked ("system threat"; Jost & Hunyady 2002; Kay, Jost & Young 2005), when one feels a high sense of dependence on the system ("system dependence"; Laurin & Kay 2008) and when one seeks a sense of control in the system to compensate for a lack of personal control ("personal control"; Kay et al. 2008).

We leverage these three contexts across a series of four studies to demonstrate the effects of the system justification motive on consumption-related choices. We predict that the enhanced need for system justification will lead participants to prefer consumption alternatives that represent traditional and well-accepted norms in society over those that do not. Importantly, we also suggest that there are key individual difference factors that will more precisely determine when the system justification motive will have the greatest impact on consumption preferences. We propose that one's chronic level of confidence in the legitimacy of the system will be especially important. Perhaps counterintuitively, we expect to see the greatest effects of threat on people who have low levels of confidence in the system ("low system endorsers"). We reason

that low system endorsers experience a significant gap between their current state and the need for system justification that is aroused as a result of certain threatening contexts. In other words, their fragile sense of confidence in the justness of the system should be highly salient and threatening when the system justification motive is activated. Thus, they are especially motivated to justify the system through means that provide immediate and concrete symbols of system endorsement such as consumption. By contrast, consumers that are highly confident in the system (“high system endorsers”) maintain a strong sense that the system is just, regardless of threat, and therefore have no need to rely on consumption for justification.

In the first study, we examine the impact of system threat and chronic levels of system endorsement (as measured by Kay & Jost’s 2003 System Justification Scale) on preferences among pairs of national versus international brands. Participants are asked to read an article which describes a writer’s negative opinion of America or a neutral article. We find that low system endorsers prefer fewer international brands when threatened than when not threatened, while high system endorsers do not differ in their choices across conditions.

In study 2, we use a system dependence manipulation and examine its effects on attitudes towards sales people who represent traditional vs. nontraditional values. Participants are asked to read about the U.S. government having a significant impact on their future outcomes in life vs. a neutral paragraph. They are then asked to rate a series of print ads. Half of the ads reflect traditional American values, while the others reflect nontraditional values. We find that low system endorsers rate the nontraditional salespersons as significantly lower in attractiveness and likeability when threatened than when not threatened. As predicted, high system endorsers do not differ in their ratings across conditions.

In study 3, we again use a system dependence manipulation. Participants are then asked to rate a series of ads which we predicted would be more threatening and salient to men than women. Thus, we expected to see a pattern similar to studies 1 and 2, but only among men. Indeed, among men, we find that low system endorsers rate nontraditional ads lower in the high system dependence condition than the control. High system endorsers show no differences across conditions.

In study 4, we activate the system justification motive by manipulating participants’ sense of personal control, thereby generalizing our findings beyond contexts that involve direct threats to one’s system. Participants are asked to write about something positive that happened to them that was out of their control (threatening condition) versus something positive that happened which was in their control (neutral condition). After the writing exercise, participants are asked to review a list of movies and choose 10 that they would like to watch. Our results indicate that low system endorsers choose fewer movies with a negative tone towards the United States when their sense of personal control is threatened versus the control condition.

In sum, we find that when the threatening consequences of living in an unjust system are made salient, individuals who are generally the least confident in the legitimacy of the system are the most likely to justify it through consumption (by embracing traditional versus nontraditional consumption options). Conversely, individuals who are highly confident in the system are able to withstand threats and do not turn to consumption to justify the system.

Coping with Existential Threat: Afterlife Belief Strength's Effect on Durability Focus in Creative Consumption

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Consumers participate in various types of creative consumption. Some types of creative consumption leave long-lasting products (e.g., photography) whereas others do not (e.g., cooking and karaoke improvisation). When do consumers place more emphasis on producing tangible, durable creative outcomes and when are they content with short-lived creative experiences? In this research, we conceptualize creative consumption as a way of coping with threats to the self’s very existence and identify afterlife belief strength as a driver of the durability focus placed on creative outcomes.

Terror Management Theory (for a review, see Pyszczynski et al. 2004) posits that unconscious anxiety over one’s mortality is a basic driver of human behavior. To manage such anxiety, humans have developed a number of coping strategies including belief in an afterlife (Dechesne et al. 2003) and engagement in creative pursuits for self-esteem enhancement. Rank (1932) argues that creative pursuit is essentially the externalization and preservation of personality and soul. By lending concrete, presumably indestructible existence to the abstract ideas of the soul, creative work imbues

the creator with a sense of immortality. To render the creator's ideas truly immortal, however, the creative product must also be durable. Thus, individuals who are existentially threatened prefer creative activities that leave durable outcomes. To the extent that afterlife belief and creative activities both relieve existential anxiety, they may be negatively related. Rank (1932) states that "Art was at first, and for a long time to come, the handmaid of religion" and observes that art rises in the wane of religious faith.

We explore the link between durability focus in creative consumption and afterlife belief in four experimental studies. We hypothesize that experimentally weakened afterlife belief should increase durability focus in creative consumption while experimentally strengthened afterlife belief should reduce it.

In study 1, we induced mortality salience in all respondents. Afterwards respondents read either an article that argued for the validity of afterlife (i.e., the "stronger" condition) or an article that argued against it (i.e., the "weaker" condition). From a list of pre-tested durable creative activities, respondents selected an activity and indicated their current interest in engaging in it. Respondents also rated their interest in participating in a non-durable creative activity: ice sculpting. We found that while weakened afterlife belief increased interest in the chosen durable creative activity, it had no effect on interest in the non-durable creative activity. Using the difference between interest in the durable and non-durable activities as a measure of durability focus, we found a marginally higher level of durability focus in the weakened belief condition. Interestingly, the afterlife belief manipulation had no effect on intention to attend a workshop to improve creative skills for (and presumably the outcome quality of) the chosen creative activity. The effect of mood as an alternative mechanism (as gauged with the PANAS) was ruled out in study 1 and the following 3 studies.

Study 2 used a 2 (mortality salience vs. control) x 2 (weaker vs. stronger afterlife belief manipulation) between-subjects design. We employed a different measure of durability focus in this study. Prior to the manipulations, respondents selected an activity from each of 3 categories: durable creative activities (e.g., photography), non-durable creative activities (e.g., cooking), and non-creative activities (e.g., watching TV). After the two manipulations, respondents allocated 100 points among the three activities based on their current levels of interest. Durability focus was operationalized as the ratio of points allocated to the durable creative activity relative to the total points allocated to both durable and non-durable creative activities combined. Study results showed that strengthened afterlife belief reduced durability focus and that this effect was not moderated by mortality salience – that is, the baseline level of existential anxiety was sufficient for the hypothesized effect to hold. Again, the afterlife belief manipulation had no effect on interest in improving creative skills. The first two studies were conducted in the U.S. where a large population strongly believes in an afterlife and where an individualistic culture promotes leaving a personal mark. We ran study 3 in China to test whether the effects are particular to certain cultures or reflect a more pervasive motive. We chose China because it is a largely secular, collectivist society. The 2 x 2 between-subjects design and dependent measure of study 3 are similar to that of study 2. Again, our hypothesis was supported and the effect was not moderated by mortality salience. Interestingly, whereas the U.S. respondents in the previous two studies reacted to a weaker afterlife belief by beefing up interest in durable creative consumption, the Chinese respondents coped by curbing interest in non-durable creative consumption.

Research has suggested that individuals in collective cultures tend to be more prevention-focused whereas individuals in more individualistic cultures tend to be more promotion-focused. To explore whether the cross-cultural differences observed in study 3 arose from differences in self-regulatory focus, study 4, conducted in the U.S., used a 2 (weaker vs. stronger afterlife belief manipulation) x 2 (promotion vs. prevention regulatory focus manipulation) between-subjects design. When prevention focus was primed, we found a greater loss of interest in non-durable creativity as affected by a weaker afterlife belief relative to when promotion focus was primed. As in the previous studies, strengthened afterlife belief again reduced durability focus and the belief manipulation did not have an effect on interest in improving creative skills. In addition to using the points allocation measure, study 4 also gauged durability focus directly by having respondents rank 3-D printing materials of varying durability (e.g., corn starch, paper pulp, plastic and copper powder) for the same creative task. We found that weaker afterlife belief increased preference for more durable printing materials. Overall, our research identifies a hydraulic relation between creative consumption and a basic belief system component – afterlife belief – in coping with existential threat. Apart from its business implications, our findings more importantly point out one particular attribute of creative consumption that can render this seemingly ordinary activity more potent at ameliorating a fundamental source of anxiety: a threat to the self's very existence.

Cognitive-Affective Matching in Consumer Attitudes and Choice

Chair: Zakary Tormala, Stanford University

Discussion Leader: Aimee Drolet, University of California, Los Angeles

“Think” versus “Feel” Framing Effects in Persuasion

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Considerable research attention has been paid to the notion that attitudes can vary in their underlying cognitive or affective bases, and this distinction has important implications for persuasion. In general, messages rich with affective information tend to be more successful at changing affective than cognitive attitudes, whereas messages rich with cognitive information tend to be more successful at changing cognitive than affective attitudes (e.g., Drolet & Aaker, 2002; Fabrigar & Petty, 1999; Haddock, Maio, Arnold, & Huskinson, 2008). The current research seeks to expand existing models of cognitive-affective matching effects in persuasion.

We take a metacognitive perspective in this domain and propose that even when one receives the same arguments from a persuasive message, believing those arguments reflect the source’s thoughts versus feelings can interact with one’s own cognitive/affective orientation to determine persuasion. Consider an example in which a pro-life voter receives a message from a politician advocating abortion rights. If the voter’s attitude is based primarily on affect, we posit that the message will be more persuasive if it appears to reflect the politician’s feelings (e.g., “I feel that freedom of choice is a woman’s inalienable right”) rather than thoughts (e.g., “I think freedom of choice is a woman’s inalienable right”). If, on the other hand, the voter’s attitude is based primarily on cognition, we posit that the message will be more persuasive if it appears to reflect the politician’s thoughts rather than feelings.

Thus, our primary hypothesis is that messages that appear to reflect their source’s feelings versus thoughts will be more persuasive when the message recipient’s attitude is based primarily on affect versus cognition, respectively. Moreover, building on past research linking matching, or fit, effects with processing fluency (e.g., Lee & Aaker, 2004), we propose that this effect will be mediated by ease of processing. That is, matched messages (affective attitude / “feel” message or cognitive attitude / “think” message) will be experienced as easier to process than mismatched messages, and this ease will translate into greater persuasion.

In Study 1, we introduced undergraduate participants to the topic of blood donation. Based on past research (e.g., Breckler & Wiggins, 1989), we assumed that participants would by default hold relatively affective, or emotional, attitudes toward this issue. To assess variations in attitude basis, however, we measured individual differences in need for cognition (NC; Cacioppo & Petty, 1982). NC refers to an individual’s tendency to enjoy and engage in effortful cognitive activity, and recent research suggests that high NC individuals tend to form attitudes that are primarily cognitive in orientation (Haddock et al., 2008). Thus, we expected low NC individuals, who generally do not engage in extensive cognitive activity, to hold relatively affective attitudes toward blood donation, whereas high NC individuals, who generally do engage in extensive cognitive activity, would hold more cognitive attitudes.

After introducing both high and low NC participants to the topic, we presented them with a persuasive message ostensibly written by a student advocating frequent blood donation as a way to contribute to society. This message contained numerous arguments in favor of blood donation, and these arguments were framed in terms of the student’s thoughts or feelings. For instance, in the “feel” (“think”) condition, the message opened with the line: “I feel (think) that donating blood is one of the most important contributions I can make to society.” Aside from the use of the word “feel” or “think” throughout the message, the content of the arguments was identical. Immediately after reading the message, participants reported their willingness to donate blood in the future. As hypothesized, we obtained a significant interaction between NC and message frame. High NCs reported greater willingness to donate blood following the “think” message than the “feel” message, whereas low NCs reported greater willingness to donate blood following the “feel” message than the “think” message.

Study 2 had several aims: to manipulate attitude basis, to directly measure attitudes following the persuasive message, and to test the processing fluency mechanism. This study essentially replicated Study 1, but we manipulated initial attitude

basis by giving participants an initial message, negative toward blood donation, that was relatively affective (e.g., “The nurse gripped my arm with one hand and slid the large spike of the needle into my skin.”) or cognitive (e.g., “I learned some surprising facts about human biology that make me think blood donation would be unwise.”) in orientation. Following this message, participants received the “think” or “feel” advocacy from Study 1, reported attitudes, and indicated how easy it was to process and comprehend the second (positive) message. Results indicated a significant interaction on both attitudes and ease of processing. When participants were originally given affective attitudes, they reported more favorable attitudes toward blood donation, and greater processing ease, in response to the “feel” message than the “think” message. When participants were originally given cognitive attitudes, these effects were reversed. Furthermore, perceived ease of processing mediated the attitude effect. Finally, Study 3 tested a practical application of these findings by presenting male and female consumers with an advertisement containing think- or feel-framed arguments. Past research suggests that women self-identify as experiencing and expressing more intense emotions than do men (see Hall & Schmid Mast, 2008). As hypothesized, then, female (male) consumers were more (less) persuaded by the “feel” than “think” message. In summary, using both measured and manipulated approaches, we found that attitudes and message recipients with cognitive (affective) orientations were more susceptible to persuasion by arguments framed in terms of their source’s thoughts (feelings), even though the substantive content of the arguments was exactly the same across conditions. Moreover, this effect was mediated by processing fluency. Participants found it easier to process the matched rather than mismatched message, and they attributed this feeling of ease to the message’s persuasiveness. Taken together, these findings suggest that people’s responses to persuasive messages are driven not only by their own attitude basis, but also by the perceived attitude basis of the message source. Implications for attitude structure and consumer behavior are discussed.

Rational vs. Emotional Ad Appeals: The Moderating Roles of Expertise and Product Type

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Consumer research has long drawn distinctions between different forms of advertising appeals (Williams & Drolet, 2005; Deighton, Romer & McQueen, 1989). The level of emotionality contained in the advertised message is one means of distinguishing among ad appeals. Perhaps some impulse purchases and hedonically consumed products lend themselves to the use of emotionally-based ad appeals. In such situations, it could be that the desirability of the emotions connected to consumption of the product and the experience of those emotions by consumers processing advertising produces a synergy that drives ad evaluation and product purchase (Ruth, 2001). For more deliberative purchases and utilitarian consumed products, a reliance on such emotional appeals may not be as effective. For purchases of this type, perhaps consumers are more effectively persuaded by a reliance on objective product claims and rational appeals. However, despite widespread use of both rational and emotional appeals by advertisers, relatively little is known about the various antecedents to persuasion in both contexts, as well as how these appeals are perceived by consumers varying in expertise and across product categories. The current research seeks to clarify the factors that undergird persuasion in both instances.

Two Processing Systems

It has long been proposed that distinct modes of processing exist (Jung, 1964). More recently, Epstein (1994) has elucidated cognitive-experiential self-theory (CEST) to explain the nature of these distinct modes and how they relate to information processing. CEST proposes that individuals process information using two parallel, interactive systems: a rational system and an experiential system. The rational system is described as intentional, analytic, logical, affect free, and it is slower in processing. In contrast, the experiential system is described as being automatic, affective and holistic (Epstein et al., 1996). A primary finding explained by CEST theory is that in situations where cognitive resources are impaired, the experiential system predominates, whereas in situations where individuals have more resources available, the rational system is granted primacy over the experiential system.

The basic premise at the heart of the current research is that emotional and rational appeals promote the use of either the experiential or rational processing systems. Rational appeals speak to the rational system and encourage a reliance on

factual information and objective brand claims, whereas emotional appeals speak to the experiential system and encourage an emphasis on feelings and greater attention to emotional information. We now examine two additional factors that further moderate the impact of appeal type on the processing system used to drive evaluation.

Consumer Expertise & Product Type: Two Moderating Factors

Previous research has identified a number of characteristics of consumer expertise (Alba & Hutchinson, 1987). We hypothesize key differences in how both rational and emotional appeals are processed as a function of expertise. For experts, the rational system houses technical information and knowledge of how products work, whereas the experiential system houses emotional memories associated with past product consumption. Because experts possess diagnostic tools for evaluating product claims in both systems, other contextual factors determine which particular system will be used in generating an evaluation. One such factor is product type. Hedonic products are normally consumed for their positive emotion inducing properties, whereas utilitarian products are consumed to achieve some functional goal. Thus, we predict that experts' preference for emotional versus rational ad appeal will depend upon product category type.

We posit that experts will evaluate emotional appeals more positively due to their relatively greater ability to identify with the emotional appeals contained in the ad appeal when evaluating a hedonic product. Compared to novices, experts are likely to favor ad appeals that are emotional in nature because these appeals will engender greater emotional expressiveness. However, when evaluating a utilitarian product, we posit that experts are likely to favor rational ad appeals that emphasize functional aspects of consuming the product, consistent with their greater category knowledge. Thus, H1 and H2:

H1: Emotional ad appeals in hedonic product categories will be evaluated more positively by expert consumers as compared to novices.

H2: Rational ad appeals in utilitarian product categories will be evaluated more positively by expert consumers as compared to novices.

Empirical Findings

We investigate the proposed hypotheses in two empirical studies. Study 1 investigates H1 using a hedonic product category (coffee), whereas study 2 investigates a utilitarian product (pain relievers). The findings support the theorized effects on ad evaluation. We conclude with a discussion of other factors relevant to expertise and their relationship to evaluation of rational and emotional ad appeals.

Do You “Work to Live” or “Live to Work”? The Role of Mood and Confidence in Causal Agency

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Nidhi Agrawal, Northwestern University

Take a trip to the Workaholics Anonymous website (<http://www.workaholics-anonymous.org/knowing.html>) and take their test on whether you are a workaholic. You will probably discover that you are a workaholic. Are people working harder because this will provide material well-being that will allow them to indulge in the moment, or might engaging in activities usually associated with immediate effort and negative feelings actually provide happiness to some people?

In this paper, we propose that people's choices reflect a match between their ambient mood and their confidence in beliefs about the self versus the environment as the agency responsible for well-being. Our basic proposition is that there are two modes of happiness—internal happiness which results from feelings of personal development, including things that are in our long-term interests, and external happiness which results from the consumption of material goods that immediately make us feel better—and one is the default of the other. People's choice of internal rather than external modes of happiness depends on their confidence in the self as the agency responsible for their happiness. In contrast, the choice of external rather than internal modes of happiness depends on their confidence in the environment as the agency causing their happiness.

High confidence in the self as an agent of happiness increases actions that result in personal development and investing effort in things in one's long-term interest. This is because seeing the self as responsible for happiness leads people to believe that unless they invest in their self growth and work they cannot be happy. In contrast, high confidence in the environment as an agent of happiness increases indulgent actions because happiness is seen to result only from external

sources such as the consumption of hedonic or material goods. As a consequence, happy people are more likely to engage in activities that lead to long-term personal development rather than external happiness from indulgent actions when they are confident that the self (vs. environment) causes happiness. On the other hand, people feeling unhappy who are confident that the self (vs. environment) is the cause of unhappiness look externally for happiness and reduce long-term actions over indulgent ones. Additionally, confidence in the environment as agent of unhappiness would imply a need to work to resolve the problems caused by the environment. When confidence in agency is low and people doubt that the self (vs. environment) is the agency of ones happiness, their reliance on the environment as the cause of their happiness increases and they engage in increased hedonic consumption consonant with seeking external sources of happiness. The reverse is true when people doubt that the self (vs. environment) is the agency of ones unhappiness. These predictions are tested in a series of experiments.

Experiment 1 employed a 2 (mood) \times 2 (high confidence in internal vs. external agency) between-subjects design to see the effects of these factors on self-control in choice. We find that that happy participants making attributions to internal (vs. external) agency are more likely to make choices that are consonant with their long-term personal development (i.e., dieters choose an apple) rather than seek external happiness (i.e., choose a chocolate). The reverse is true for unhappy participants making attributions to internal (vs. external) agency.

Experiments 2a and 2b employ a 2(mood) \times 2 (low confidence in internal vs. external agency) between-subjects design to test our predictions but use different manipulation of confidence in agency. It is demonstrated that that when participants in a positive mood make attributions to internal (vs. external) agency but are low in confidence in agency, they are less likely to make choices endorsing personal development and long-term benefits (e.g., say they will get tested for herpes even though they think they are less likely to have the disease). The reverse is true for negative participants who have low confidence in an internal (vs. external) agency as responsible for feelings.

Experiment 3 employs a 2 (attribution of happiness to internal vs. external agency) \times 2 (confidence in agency) between-subjects design to demonstrate that happy participants with a high confidence in an internal (vs. external) agency are more likely to endorse activities that result in long-term personal development even if they involve short-term effort. In contrast, happy participants with a low confidence in an internal (vs. external) agency are less likely to endorse activities that result in long-term benefits and more likely to endorse indulgent activities that conflict with long-term personal development.

Experiment 4 studied these effects while focusing on an external agency. In a 2 (mood) \times 2 (high vs. low confidence in external agency) between-subjects design, it demonstrates that happy participants who are high (vs. low) in confidence in external agency are more likely to make material choices that reflect seeking external modes of happiness. Unhappy participants who are high (vs. low) in confidence in external agency show reversed effects. Across these experiments, attribution to agency is manipulated through a priming task or is measured, and confidence in agency is manipulated in a variety of ways, by instructions, by ease of attribution manipulations such as generating one versus seven instances implicating the agency and using dominant versus non dominant hand writing about agency, and by employing emotions that naturally vary in confidence (e.g., happiness vs. hope).

In summary, the literature has suggested that wanting to feel good leads to short-term oriented indulgent choices. We suggest that attributing happiness to the self moves individuals from focusing on external sources of happiness (e.g., chocolates) to internal sources of happiness (e.g., personal development). Thus, agency attributions determine whether an external or internal mode of happiness governs behavior. Implications for the literatures on emotions, self-regulation, and consumer welfare will be discussed.

Consuming Risk and Uncertainty: Gambling, Promotions, and Risky Decisions

Chair: On Amir, University of California, San Diego

Discussion Leader: Uri Simonsohn, University of California, San Diego

Symposium Overview

The study of decision making under risk and uncertainty has been central to much of social science in for many years, and recent developments in the psychological processes underlying decision making allow a finer more nuanced investigation of the important topic. The papers in this session represent the such attempts to better understand the psychology of decision making under risk in consumer setting, and together improve our understanding of consumers when they gamble, invest, or respond to certain promotion schemes.

The first paper in this session imposes important boundary conditions on the well known phenomenon of loss aversion and is thus able to explain the ubiquity of gambling behavior. Simmons and Novemsky demonstrate two important points: first they establish that people are not loss averse over small amounts of money, and then they demonstrate that the perceived magnitude of the gamble is subject to preannounced contextual manipulations. Finally, they demonstrate that gambling situations are particularly suitable for such reduced magnitude framing of the gamble. This insight allows the reconciliation of the theoretical accounts of decision making under risk with the observed frequency of consumer gambling.

The second paper in the session delves deeper into the psychology underlying a single gamble or risky decision. Amir, Vohs, and Dhar suggest that the preference for risk can be conceptualized as an initial temptation that may be overridden by executive control processes. They argue that when executive override is compromised, preferences for greater risk should emerge. They support this latter prediction with experimental evidence that varies across decision context and depletion manipulations and provide initial evidence that this effect may be driven by temptation for the upside of the risky option that may be moderated by executive control processes if those are available. This latter notion opens an initial window into the psychology underlying risk preferences.

The third paper in the session builds on the latter notion to investigate consumer response to risky promotions – promotions that involve some chance of receiving a reward. In a series of lab and field experiments Goldsmith and Amir demonstrate that consumers behave as if they are somewhat risk seeking when it comes to such promotions. That is, the risky promotion effectiveness in driving consumer interest and sales is on par with offering the reward at certainty. They conjecture that this effect may be driven by an intuitive almost reflexive optimistic response to these promotions and draw important boundary conditions to their effectiveness.

Together the work in this session suggests that the psychology of many low stakes consumer situations that involve decisions over risky prospects may be lead to behavior that differs from current theoretical models. Moreover, each of the papers in the sessions attempts to shed light on the theoretical underpinnings of such deviations. The session should attract people who study judgment and decision making , as well as those who study consumer promotions and psychological depletion.

From Loss Aversion to Loss Acceptance: How Casino Contexts Can Undermine Loss Aversion

Joseph P. Simmons, Yale University

Nathan Novemsky, Yale University*

This research attempts to inform an empirical paradox. On the one hand, we know that most research participants are unwilling to accept 50/50 gambles to win or lose the same amount (e.g., a 50% chance to win or lose \$20), presumably because they are loss averse: People expect losing \$x to be more painful than they expect gaining \$x to be pleasurable (Kahneman and Tversky 1979). On the other hand, we know that millions of people gamble in casinos and on sporting events, thereby accepting odds that are even less favorable than the ones that most research participants find unacceptable. Indeed, in the United States alone, gross casino gaming revenues exceeded \$34 billion in 2007, and this industry is growing steadily (American Gaming Association 2008).

To partially reconcile these empirical realities, we start with the notion that people's gambling decisions are more

sensitive to the expected pain of a loss rather than to the expected pleasure of a gain. As a result, people faced with a gambling decision should be more sensitive to loss magnitudes than to gain magnitudes. If this is true, then people should be more willing to accept gambles that offer an even chance to win or lose the same amount when losses seem small than when losses seem large (because small losses are better than large losses). This explanation predicts that loss aversion will decrease as the subjective magnitude of the loss decreases (cf., Harinck, Van Dijk, Van Beest, and Mersmann 2007).

In a series of studies, we show that people are more willing to accept 50/50 gambles to win or lose the same amount when the gambling context makes the wager amount seem small. In Study 1, participants were more likely to accept a \$5 gamble after we first asked them to consider gambling for a larger amount (\$25). In Study 2, participants were more likely to accept a \$10 gamble after merely being exposed to a larger gamble (\$50) than after being exposed to a smaller gamble (\$1). Consistent with our theorizing, Study 2 also found that exposure to the \$50 gamble decreased the expected pain of a \$10 loss, and this decrease partially mediated the effect of context on the willingness to accept the \$10 gamble.

In Study 3, participants were more likely to wager \$5 when we asked them to set a wager amount than when we simply presented them with the option to play a \$5 gamble, because participants asked to generate a wager amount considered bigger bet values, which made a \$5 wager seem small. In Study 4, participants were more likely to play a \$5 gamble when \$5 was described as the minimum bet amount, presumably because so doing made \$5 seem like a small amount. Finally, in Study 5, participants were more likely to accept a \$20 gamble when they believed that the maximum allowable bet was high (\$100) rather than low (\$25). Consistent with a moderated loss aversion account, increasing the maximum allowable bet decreased the pain participants associated with losing \$20, but did not affect the pleasure participants associated with winning \$20.

Thus, five studies demonstrated five ways in which casino contexts may undermine loss aversion, and increase gambling, by making potential loss magnitudes seem small. These include (1) asking people to consider gambling for a large then small amount, (2) exposing people to large gambles, (3) asking people to generate wager amounts, (4) designating some amount as the minimum, and (5) designating a large amount as the maximum wager amount. Each of the five studies showed that any one of these manipulations can increase people's willingness to gamble for relatively small amounts. On this basis we would expect casinos, which almost constantly employ *all* of these manipulations, to encourage many typically loss averse people to gamble at least some amount of money.

Beyond (partially) explaining why loss averse gamblers might gamble at casinos, this research may potentially explain other effects that are difficult to reconcile with loss aversion. Contrary to loss aversion, Kahneman and Tversky (1979) discovered that most people are willing to accept a sure loss of \$5 in order to avoid accepting a .001 chance at a loss of \$5,000. To explain this result, Kahneman and Tversky proposed that people overweight small probabilities, and that the subjective value of a .001 chance to lose \$5,000 is therefore greater than -\$5. Our research suggests a simpler explanation for the effect: In the context of a potential \$5,000 loss, a loss of \$5 may seem very small, and people may consequently expect the \$5 loss to be relatively painless.

Self-Regulatory Resource Depletion and Risk Aversion

Kathleen D. Vohs, University of Minnesota*

On Amir, University of California, San Diego

Ravi Dhar, Yale University

In self-control dilemmas, one tries to override the temptation inherent in the situation and choose the option with the long-term benefit. Risky choice also contains temptation – that of the positive outcome. People use executive resources to overcome temptation and hence we hypothesized that executive resources aid in risk aversion. We tested this hypothesis in five experiments.

Experiment 1 formed a habit within all participants, and then half of the participants (i.e., self-regulatory resource depleted participants) learned a new, more difficult habit, whereas no-regulation participants continued with the overlearned task. The measure of risk was preference for two lotteries with different odds of winning money but the same negative outcome —listening to nails scratching down a chalkboard. As predicted, participants preferred the risky option when they had been self-regulatory resource depleted as opposed to when they had not.

Experiment 2 asked participants to write a story without using the letters A or N (self-regulatory resource depleted) or without using the letters X and Z (non-depleted). Then participants considered their preferences for putting money in a risky stock or a savings account. As expected, participants who were self-regulatory resource depleted favored the risky stock more than the savings account and more than non-depleted participants.

In Experiment 3, participants in the attention control condition had to ignore irrelevant words that popped up on the bottom of a video screen. Participants in the no-attention control condition watched the same video without specific instructions. Then participants made decisions regarding 10 pairs of lotteries that differed in outcome variance, with more variance representing riskier lotteries. We measured two forms of risk aversion and found that, consistent with predictions, participants who controlled their attention earlier were significantly less risk averse than their counterparts in the control condition, on both assessments of risk preference.

In Experiment 4, we tested optimism about the outcomes of events as a likely candidate for why the previous effects occurred. Participants first wrote out their thoughts while either suppressing thoughts of a white bear or without suppression instructions. Then participants completed Weinstein's (1980) measure of optimism. In accordance with the hypothesis, participants who had suppressed their thoughts believed they had a higher likelihood of experiencing positive events and a lower likelihood of experiencing negative events, relative to participants who had not suppressed their thoughts.

Experiment 4 suggests that when the upside of the choice is tempting, depleted participants will be drawn to that option. But if the upside is less tempting, then self-regulatory resource depletion may have less effect. We asked participants again to write an essay while omitting As or Ns (self-regulatory resource depletion) as opposed to Zs or Xs (non-depletion). Then participants imagined that they had just won \$20 in a game and then were offered a gamble. The gamble was described either in low-variance terms or high-variance terms (between-subjects). Participants could either choose the lottery or take their \$20. Consistent with predictions, self-regulatory resource depleted participants were more likely to select the lottery in the high variance condition but there was no effect of depletion on risk aversion when in the low-variance condition.

In sum, this work conceptualizes risky choice as a temptation (the upside) that is overcome with self-regulatory resources. When people are devoid of these executive resources, they are less able to overcome the lure of the best possible outcome.

Reflexive Positivity: How Uncertainty Can Improve Promotions

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On Amir, University of California, San Diego*

Consumer promotions often involve some chance of winning a reward, that is, they involve uncertainty. Most research on uncertainty, however, would question the effectiveness of such promotions whenever the probabilities are not miniscule. In a series of lab experiments and a field study we demonstrate that there are conditions in which such promotions may be as effective as and therefore more efficient than offering the reward with certainty.

In the Experiment 1 we demonstrate this main effect by offering three randomly assigned groups one of three different promotions with a purchase of a soft drink: one group was offered a free iTunes download, another group was offered a point to be accumulated towards some future reward, and a third group was told they would get either the free iTunes download or a point as a function of what was under the cap. While the first promotion was undoubtedly the best and the second undoubtedly the worst, the main research question pertained to the effectiveness of the third "lottery" promotion. On both intention to purchase and promotion attractiveness we find that the "lottery" promotion to be no different than the first free iTunes offer, and significantly better than the second "point" promotion. This experiment substantiates the main effect in this paper and a follow-up experiment that was conceptually identical but controlled for potential perceptual contrast effects replicated these findings.

In Experiment 3 we test whether the large response to the "lottery" promotion was driven by a high perceived expected value, this time using very attractive (Godiva) and less attractive (Hershey Kisses) chocolates as rewards for a purchase of a soft-drink six-pack. In this experiment, after participants made their choices we follow with a series of measures meant to tap their perceived expected value of the promotion. The results suggest that participants behaved in a manner that is

not consistent with their expected value – instead, they behaved as if the “lottery” promotion offered a much higher value than the value they later explicitly assign to it. We thus are able to conjecture that participants in our experiment did not calculate the expected value of the promotion before acting.

Experiments 4 and 5 follow by outlining some boundary conditions of what might happen to the consumer reaction of the consumer does consider this promotion more carefully. We find that both a large gap between rewards and asking people for their guess of the probability of winning the better reward before observing their behavior greatly diminish the effectiveness of the lottery promotion. Experiment 6 then rules out an alternative account of focusing on the extreme, thus increasing the likelihood that the underlying mechanism has to do with elaboration.

Finally, a field study confirmed that even though the effect probably depends on consumers not elaborating about the promotion they indeed do not. We offered consumers in a public cafeteria a reward of a soft drink (better) or an unopened bag of microwavable popcorn (lesser good) if they purchase a health bar, in the usual three conditions (better, lesser, lottery) between participants and observed actual purchase rates. The results supported all the lab findings that the “lottery” promotion was as effective thus more efficient than offering the better reward with certainty. Put together these results not only teach us about the value of risky promotions in the market and the boundaries to their effectiveness, but also hint to an important mechanism underlying risky decision making and the role of reflexive vs. reflective processing.

Face Processing in Consumption Contexts: Inferences and Outcomes

Chair: JoAndrea Hoegg, University of British Columbia, Canada

Discussion Leader: Suresh Ramanathan, University of Chicago

Smiley Faces in Ads Can Lead to Frowns at the Cash Register: Investigation of the Impact of Facial Images on Consumption

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Darron Billeter, Brigham Young University

Jeff Inman, University of Pittsburgh

Marketers often use visual images in print advertisements, point-of-purchase promotions and product packaging with the hope and conviction that they will generate a positive impact on sales. Research suggests that visual images have a positive impact on consumers' preferences by enhancing consumer's recall of brand name (Lutz & Lutz, 1977; Childers & Houston, 1984), boosting retrieval of attribute information (Houston, Childers & Hechler, 1987; Unnava & Burnkrant, 1991), and forming favorable attitudes towards the brand and advertisement (Rossiter & Percy, 1978; Mitchell, 1986). However, rather than always resulting from deliberate thoughts and stable preferences, people's consumption behaviors are subject to influences of various subtle contextual factors that operate outside awareness, such as supply volume (e.g., Wansink, 1996), container shape (Wansink & Ittersum, 2003), and incidental affect (Garg, Wansink & Inman, 2007). For example, Wansink (1996) found that larger package sizes accelerated the consumption rate more than smaller package size. Wansink and Ittersum (2003) found that people poured more alcohol into a short wide glass compared to a tall slender glass. Garg et al. (2007) demonstrated that whereas people ate larger amounts of hedonic food (e.g., popcorn) while watching a sad movie; they ate larger amounts of less hedonic food (e.g., raisins) while watching a happy movie. Given the findings that consumption behaviors are largely determined by factors outside consciousness, will the positive impact of visual images on attitude formation translate into higher consumption rates?

The generalized motivational drive model of goal pursuit (Wadhwa, Shiv & Nowlis, 2008; Wadhwa, 2008) suggests that experience with incident hedonic cues (e.g., romantic rather than neutral images), activates a general motivational drive, which thereby enhances pursuit of a subsequently adopted goal (e.g., enhancing consumption of rewarding and desirable products). Similarly, research on visceral influence (Loewenstein, 1996) suggests that visual images that evoke strong arousal reactions and drive states may have a positive impact on consumption. Yet, both the generalized motivational drive model and the theory of visceral influence do not offer a systematic prediction about how facial images and other neutral images that are widely used in advertisements influence the consumption rate of everyday consumer goods. Whether common visual images used in advertisements (in particular facial images) lead to higher consumption rates and more frequent purchases remains an intriguing, uninvestigated question with theoretical and practical implications. Our main research question is, under what conditions does the addition of visual images in advertisements lead to an increase or decrease in consumption. In a series of experiments, we found that adding the image of a smiling face decreased individuals' consumption rate of the featured teeth whitening rinse. We show that the negative impact of facial images on consumption occurs outside of consumer's awareness and is attenuated by cognitive deliberation. Importantly, we demonstrate that the impact of visual image on consumption is mediated by perceived effectiveness of the advertised products.

Study 1 was designed to explore the main effect of facial image on estimated consumption. In particular, we examined the impact of adding the image of a smiling face to an otherwise text-only advertisement on the estimated consumption rate of a new teeth whitening rinse. A one-factor, two-level between-subjects (visual image: picture vs. no-picture) design was used. First, subjects were shown an advertisement, either containing six product descriptions, or both the image of a smiling face and the six product descriptions. Next, all subjects were asked to estimate how much all-natural teeth whitening rinse they would use at one time. We found that adding the image of a smiling face to the text-only advertisement reduced the estimated consumption rate of a new all-natural teeth whitening rinse by 42.35%.

In study 2, we investigated whether the impact of visual image on consumption occurred outside of consumer's awareness and whether the impact would be moderated by cognitive deliberation. In doing so, we added a two-level factor,

rationalization (rating vs. no-rating) to the one-factor (image vs. no-image) design used in Study 1. We manipulated rationalization by asking subjects to rate the importance of each piece of information presented in the advertisement before estimating the consumption rate for a single usage condition (Wilson & Schooler, 1991). We found a significant interaction between rationalization and visual image. Consistent with the results of Study 1, in the no-rating conditions, subjects in the picture condition indicated less rinse needed for a single consumption occasion than subjects in the no-picture condition. Interestingly, we found that in the rating conditions, the negative impact of visual image on consumption disappeared: under the rationalization manipulation, subjects in the picture condition in fact indicated more rinse than subjects in the no-picture condition.

Study 3 demonstrated the main effect in an actual consumption scenario. Besides ruling out the alternative explanation of differences in mood and arousal, the results of Study 3 showed that facial images mainly influenced the consumption rate of individuals whose chronic need for deliberative cognitive thinking was low, rather than individuals whose need for cognition was high. In study 4, we extended the stimuli of facial images to general visual images and tested the underlying mechanism and boundary condition. We found that the impact of a visual image on consumption was mediated by perceived effectiveness of the advertised products. In particular, our results suggest that visual images that lead to higher perceived effectiveness of the featured product resulted in less consumption and this effect mainly occurs for concentrated products where being more effective would lead to less usage.

The present research offers rich implications for practitioners. Marketers often use visual images in advertisements with the hope and conviction that they produce a positive impact on sales. Contrary to this popular belief, our results suggest that face images, especially those images that increase perceived effectiveness of the advertised concentrated products, may inadvertently decrease sales volume due to a reduced consumption rate and lengthened repurchase cycle. We show the negative impact of a visual image may be attenuated or reversed under certain circumstances, such as asking consumers to rate the importance of different product attributes.

Childers, T. & Houston, M. (1984). Conditions for a picture-superiority effect on consumer memory. *Journal of Consumer Research*, 11 (September), 643- 654.

Garg N., Wansink, B., & Inman, J. J. (2007). The influence of incidental affect on consumers' food intake. *Journal of Marketing*, 71 (1), 194-206.

Houston, M. J., Childers, T. L., & Heckler, S. E. (1987). Picture-word consistency and the elaborative processing of advertisements. *Journal of Marketing Research*, 24 (November), 359-369.

Loewenstein, G. (1996). Out of control: Visceral influences on behavior. *Organizational Behavior and Human Decision Processes*, 65 (March), 272-292.

Lutz, K. & Lutz, R. (1977). Effects of interactive imagery on learning: Applications to advertising. *Journal of Applied Psychology*, 62 (4), 493-498.

Mitchell, A. (1986). The effect of verbal and visual components of advertisements on brand attitudes and attitude toward the advertisement. *Journal of Consumer Research*, 13 (1), 12-24.

Rossiter J. & Percy, L. (1978). Visual imaging ability as a mediator of advertising response. in *Advances in Consumer Research*, Vol 5, Ed. Keith Hunt, Provo, UT: Association for Consumer Research, 621-629.

Unnava, R. & Burnkrant, R. (1991). An imagery-processing view of the role of picture in print advertisements. *Journal of Marketing Research*, Vol. 28 (May), 226-231.

Wadhwa, M. Kindling the motivation system: Impact of incident hedonic cues on subsequent goal pursuit. *working paper*, Stanford University.

Wadhwa, M., Shiv, B., & Nowlis, S. M. (2008). A bite to whet the reward appetite: Influence of sampling on reward-seeking behaviors. *Journal of Marketing Research*, 45 (August), 403-413

Wansink, B. (1996). Can package size accelerate usage volume? *Journal of Marketing*, Vol. 60 (3), 1-14.

Wansink, B. & van Ittersum, K. (2003). Bottoms up! The influence of elongation and pouring on consumption volume. *Journal of Consumer Research*, 30 (December), 455-463.

Wilson, T. D. & Schooler, J. W. (1991). Thinking too much: Introspection can reduce the quality of preferences and decisions. *Journal of Personality and Social Psychology*, 60 (2), 181-192.

Reading the Seller's Facial Expressions: Moderating Effects on How Seller Concession Patterns Influence Buyer Price Expectations

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A majority of marketing negotiations occur in face-to-face settings where the negotiating parties must evaluate the received offers (counteroffers) to reach agreement. In such negotiations sellers use a variety of tactics to induce advantageous inferences regarding the seller's willingness to transact in order to arrive at an attractive final transaction price (Kwon & Weingart, 2004). One such tactic that sellers often use involves changing the size and sequence of price concessions. For instance, sellers might offer a smaller initial concession followed by a larger later one (i.e., a concave concession pattern) or a larger initial concession followed by a smaller later one (i.e., a convex concession). However, these concession patterns are ambiguous and buyers may interpret these concession patterns based on other cues available in the negotiation context.

One powerful interpretive cue that is available to buyers in face-to-face negotiations is the seller's facial expressions. The recently emerging social neuroscience literature suggests that "reading" (i.e., perceiving, identifying and comprehending) faces of interaction partners is fundamental to social interaction (e.g., Todorov et al., 2006). Also, the negotiations literature emphasizes the importance of expressions and suggests that sellers should maintain a smiling demeanor as it signals friendliness and honesty and can enhance trust perceptions (Thompson 2001, p. 316; Zebrowitz, 1997). However, in competitive negotiation environments, a smile on the seller's face may lead to other inferences. If buyers believe that the seller's facial expressions reflect their true emotions, then a smile may signal that the seller is happy indicating that the seller may have come out ahead in the negotiation. We find support for this inference using the "inverse affect" theory which posits that evaluation of negotiation performance is "inversely related to the reaction displayed by one's opponent" (Thompson et al., 1995). This theory suggests that a buyer is likely to interpret a seller's happiness to indicate that the seller has done well. In contrast, buyers may infer that they have done well if the seller is perceived to be unhappy. Such beliefs have been shown to persist even in negotiations with a potential for mutual gain (Thompson et al., 1995). While negotiators learned about their opponent's reactions (happy or unhappy) through written descriptions in the above studies, we posit that seller's facial expressions may also signal such emotions which might influence buyers' perceptions of negotiation performance.

In this research we formally examine how a smile on a seller's face influences buyer's perception of the seller and that of the seller's concession patterns. Specifically, we investigate how expressions and expression changes on the seller's face influence buyer's price expectations in the presence of seller's concession patterns (concave vs. convex). We report findings from three studies. Study 1 investigates whether or not static expressions on the seller's face influence buyer's price expectations in the presence of different seller concession patterns. Specifically, we compare an impassive seller face with a smiling one. We also include a no face condition as a benchmark.

In study 2 we investigate how expression changes on the seller's face (positive change (impassive to smile) vs. negative change (smile to impassive)) influences buyer's price expectations in the presence of the seller's concession patterns. To provide support for the inverse affect hypothesis and to dispel other alternative explanations, we also manipulate buyer's uncertainty regarding product quality to be low or high. We posit that buyers with higher (relative to lower) uncertainty will use the seller's facial expressions to infer the seller's mind state and thus these expression changes will influence both price expectations as well as product quality judgments.

Study 3 provides further support for the inverse affect hypothesis by demonstrating how buyers interpret expression changes on the seller's face. In this study we use a more direct approach by specifically asking buyers to judge their negotiation performance vis-à-vis the seller based on the seller's expression changes.

Thus, across a series of studies we show that although buyers make inferences based on the seller's facial expressions, the interpretation contradicts the popularly held beliefs. These findings underscore the importance of expression management in face-to-face negotiations and provide important theoretical and managerial insights.

Connecting with Others through Shared Experiences: Differing Effects for Friends and Strangers

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Suresh Ramanathan, University of Chicago*

Friendships and romances play out through shared experiences. Movies, dinners, plays, even lectures offer benefits in their own right, but these experiences are also instruments in our emerging and continuing affiliations. Verbal and nonverbal expressions during these experiences reinforce our connection and bind our feelings over time. So, what about strangers? Do strangers grow more connected to each other also as they glance at each other's facial expressions and postures and share the occasional look of amusement, boredom, or horror? The present research is intended to examine differences in the effect of sharing an experience for friends and strangers both in the evaluation of that experience and in the downstream effects on feelings of rapport.

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, who were either strangers or best friends watched a popular comedy show on 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 data points 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.

In order to understand the processes underlying these effects, we also surreptitiously videotaped pairs of participants while they were evaluating the video clip. Images from the videotaping were routed to a digital video recorder that recorded a split screen image for both participants that was subsequently analyzed moment by moment by independent raters. The raters coded for glances initiated by either participant, and the emotional expressions on each face.

Our results show that strangers who could see each other glanced in the direction of each other, sometimes sharing a look, sometimes looking on their own, and so became entwined in their moment-to-moment evaluations of the experience. Further, the greater the extent of this synchrony, the more positive was their retrospective evaluations of the experience. We also recorded how close participants sat after the experience was over as a measure of post-experience rapport. We found that seating distance for strangers was affected by end affect but not by synchrony. Strangers therefore appeared to attribute the good feelings associated with synchrony to the quality of the short movie and not to the connection that had developed between them.

Our results for friends suggest important differences in how they share an experience. Friends looked at each other more than strangers and achieved a higher level of synchrony. Additional results support the view that this greater synchrony developed between friends through mimicry and emotional contagion, not shared tastes. Specifically, friends in the mere presence (full partition) condition, who could not see each other because of a partition between them, did not achieve a higher level of synchrony than strangers in the same condition, and their synchrony was less than friends who could see each other. Friends also differed from strangers in how they interpreted the entwinement. Whereas strangers appeared to attribute the good feeling of being entwined to the experience itself, friends did not base their retrospective evaluations on the degree of synchrony. Instead, friends sat closer to each other, the more they were entwined in their online assessments, suggesting that they attached the good feeling of being entwined to their underlying friendship.

Friends and strangers also appeared to interpret their experiences in the mere presence condition differently. As noted above, friends and strangers did not differ in the degree of synchrony in this condition. However, retrospective evaluations of the experience were lower in this condition for friends compared to strangers. Combining this result with the findings for the full presence (short partition) condition suggests that friends expected to grow closer by sharing an experience,

attributed good feelings of being able to do so (i.e., when they could see each other) to each other, but attributed bad feelings of not being able to do so to the experience. Hence, friends and strangers both evince asymmetric reactions to viewing conditions, albeit of different types. Friends do not like an experience more when they are able to bond but they dislike the experience when conditions get in the way of their interaction. For strangers, we find the opposite; they like the experience more if conditions let them connect but do not judge the experience poorly if they cannot.

But What if You're Not Hot? Investigating Impression Formation in Online Dating

Miranda Goode, University of Western Ontario, Canada*

JoAndrea Hoegg, University of British Columbia, Canada

Internet dating firms earned \$500 million in 2005 in the US, and the industry continues to grow rapidly. Understanding the psychological mechanisms that underlie the internet dating process is important for individuals marketing themselves and managers seeking to attract and retain customers. The research that is publicly available suggests that “click throughs” happen for those who have a picture posted and who are slim and attractive. However, if physical appearance is not one’s strength, how can the disclosure of profile information be managed to enhance dateability? On most websites, customers can choose to display a picture for immediate viewing or to withhold a picture until after their profile has been read. The current research considers the conditions under which “holding back” may be a useful strategy. We examine differences in outcomes as a function of evaluating positive profile information before or after an unfavorable facial image. In addition we show how such outcomes differ as a function of deliberative processing and gender.

Prior research in face processing has examined situations where a facial image is used as a lens to interpret written personality information (Hassin & Trope, 2000) but such research has primarily focused on situations in which the verbal information is ambiguous and both sources of information are presented simultaneously. The sequential presentation of conflicting information has been well studied in the impression formation literature (e.g., Hogarth & Einhorn, 1992; Richter & Kruglanski, 1998), but this research tends to focus on written information only. Based on prior research in visual processing we predict and show that order effects in impression formation are altered when the modality of the information is inconsistent.

Study 1 examined how the order of conflicting visual and verbal information influences evaluations. Participants viewed and evaluated profiles of two dating candidates. The profiles were pretested so that the candidate pictures appeared unintelligent and the written bios appeared intelligent, thus creating conflicting information. Participants either viewed the picture first and then the bio or vice versa before rating the overall dateability of the candidate. Males rated females, and females rated males. A significant order effect for males rating females ($t(41) = -2.13, p < .05$) showed that females with less favorable pictures benefited from having their profile read first. Information order did not affect the dateability ratings of females rating males.

Study 2a identified why only evaluations made by males were susceptible to the order in which conflicting visual and verbal information was presented. Findings in the gender and information processing literature (e.g., Meyers-Levy & Sternthal, 1991) suggest that females engage in more detailed processing whereas males are less detailed and use processing short cuts to arrive at an evaluation. Therefore, in addition to the order manipulation, study 2 employed a manipulation that required participants to write or not write about each piece of information presented. This manipulation was designed to encourage careful processing of the visual and verbal information. Consistent with the gender processing literature, when men were made to elaborate, the effect was attenuated but elaboration had no effect on females’ ratings. To increase generalizability, study 2b was conducted to determine if a favorable bio (e.g., conveying intelligence) may overcome the negative effects of a physically unattractive picture (studies 1 and 2 used a picture and bio incongruent on intelligence, while physical attractiveness ratings were average). The pattern of results was replicated. Study 3 investigated how differences in expectations of facial appearance by men versus women mediates the effects. Together these studies address some of the complexities that underlie the internet dating process and reveal insights that contribute both to theory and practice.

Hassin, R. & Trope, Y. (2000). Facing faces: Studies on the cognitive aspects of physiognomy. *Journal of Personality and*

Social Psychology, 78 (5), 837-52.

- Hogarth, R. M. & Einhorn, H. J. (1992). Order effects in belief updating: The belief-adjustment model. *Cognitive Psychology*, 24 (1), 1-55.
- Meyers-Levy, J. & Sternthal, B. (1991). Gender differences in the use of message cues and judgments. *Journal of Marketing Research*, 28 (February), 84-96.
- Richter, L. & Kruglanski, A. W. (1998). Seizing on the latest: Motivationally driven recency effects in impression formation. *Journal of Experimental Social Psychology*, 34 (4), 313-29.

Emerging Directions in Affect: Affective Influences on Motivation

Chair: Nancy Puccinelli (Upton), Northeastern University

Discussion Leader: Dhruv Grewal, Babson College

Symposium Overview

The objective of this symposium is to highlight recent developments in work on affect. In particular, the collection of papers in the symposium will illustrate an important trend toward research into the role of affect in motivation. Building on earlier work that emphasizes the informative function of affect (Schwarz & Clore, 1988), recent research has focused on how affect can motivate consumer decision making and behavior (e.g., Cohen & Andrade, 2004). The session will conclude with a meta-analytic review of research on mood that will highlight the important moderators of affect's effect on consumer behavior. As evidenced by each abstract, the research presented in this symposium will contribute a great deal to our understanding of consumer affective experience and is expected to appeal to a wide range of scholars in consumer research. To maximize audience engagement, each presenter will focus on their hypotheses and the key studies of each paper. This will also ensure sufficient time for remarks by the co-chairs and questions from the audience.

The first paper [Pham and Raghunathan], points to past research that has documented disconnects between actual emotional influences and people's predictions about emotional influences. It tests another disconnect—the tendency to underestimate the specific direction in which distinct emotions push us. It argues that people who actually feel anxiety and sadness (as opposed to merely imagining them, or mimicking the cognitions that typically accompany them) will more strongly exhibit the motivational tendencies known to be associated with anxiety and sadness (Raghunathan & Pham, 1999). Results across two studies confirm their predictions.

The second paper [Adaval, Wansink, and Fong] asks: How does affect influence one's desire to seek options that are "different"? Research on variety seeking suggests that people seek something different when they are happy. However, they might also seek something different in order to distract themselves when they are unhappy. The authors examine how perceptions of agency (i.e., who was responsible for the affect eliciting event) and valence of affect help provide a clearer understanding of this issue. Four studies show a) the interactive effects of agency and valence, b) how these effects are moderated by distraction, and c) the robustness of the effects in a realistic context.

The third paper [Puccinelli, Andrzejewski and Grewal] presents a quantitative review of 91 published articles examining various aspects of affect's influence on consumer behavior. The results are broken down into five theoretically relevant categories of consumer behavior (self-reported affect, product/service evaluation, advertising evaluation, processing, and behavioral intention/behavior). Various moderators of these results are also examined and discussed. The authors used these results to develop a comprehensive model of mood's influence on consumer behavior.

On the Inability to Predict the Directional Influence of Distinct Emotional States

Michel Tuan Pham, Columbia University

Raj Raghunathan, University of Texas, Austin*

This paper points to past research that has documented disconnects between actual emotional influences and people's predictions about emotional influences. It tests another disconnect—the tendency to underestimate the specific direction in which distinct emotions push us. It argues that people who actually feel anxiety and sadness (as opposed to merely imagining them, or mimicking the cognitions that typically accompany them) will more strongly exhibit the motivational tendencies known to be associated with anxiety and sadness (Raghunathan & Pham, 1999). Results across two studies confirm their predictions.

Perceptions of Agency and Valence of Affect: How Do They Influence Your Motivation to Seek Something “Different”?

Rashmi Adaval, Hong Kong University of Science and Technology
Brian Wansink, Cornell University
Candy P. S. Fong, University of Macau, Macau*

How does affect influence one’s desire to seek options that are “different”? Research on variety seeking suggests that people seek something different when they are happy. However, they might also seek something different in order to distract themselves when they are unhappy. The authors examine how perceptions of agency (i.e., who was responsible for the affect eliciting event) and valence of affect help provide a clearer understanding of this issue. Four studies show a) the interactive effects of agency and valence, b) how these effects are moderated by distraction, and c) the robustness of the effects in a realistic context.

Affect and Consumer Behavior: A Meta-Analytic Review

Nancy Puccinelli (Upton), Northeastern University
Susan Andrzejewski, Northeastern University*
Dhruv Grewal, Babson College

This paper presents a quantitative review of 91 published articles examining various aspects of affect’s influence on consumer behavior. The results are broken down into five theoretically relevant categories of consumer behavior (self-reported affect, product/service evaluation, advertising evaluation, processing, and behavioral intention/behavior). Various moderators of these results are also examined and discussed. The authors used these results to develop a comprehensive model of mood’s influence on consumer behavior.

Issues of Fit: Consumer Self-Construal, Regulatory Focus

Chair: Michael Allen, University of Sydney, Australia

Disgust, Law of Contagion, and the Need for Product Image Congruity.

Michael Allen, University of Sydney, Australia*

There is little doubt that many consumers evaluate a product's image. Sirgy (1982) contends that consumers compare product image to their self-image, and the closer the correspondence, the more they like the product. Similarly, Allen and colleagues (Allen & Ng, 1999; Allen et al, 2008) suggest that individuals compare the human values contained in a product's symbolism to their own human value priorities, and value-symbol congruity results in a favorable attitude and purchase intention, whereas incongruity results in an unfavorable attitude and less intention.

The propositions of Allen and Sirgy are based on cognitive consistency theory, which suggests that individuals strive for consistency among their beliefs, attitudes, and behaviors (Festinger, 1957; Aronson, 1969). Festinger (1957) suggests that inconsistency among cognitions produces a state of psychological dissonance or unpleasant tension akin to hunger or thirst. However, Aronson (1969) maintained that the greatest dissonance occurs when a freely chosen behavior is inconsistent with an individual's self-concept. Thus, the models of Allen and Sirgy contend that individuals seek out and select a product with an image that is congruent with their self-concept because they want to avoid the cognitive dissonance that arises when using a product with an incongruent image.

However, I contend that there is a necessary qualifier of this viewpoint that has heretofore been overlooked: that product-image incongruity can only affect the cognitive dissonance (and thus product choice) of individuals who believe that a product's image can transfer to their self-concept when they use the product. That is, that these individuals must believe in magic, or more specifically, the "law of contagion", a primitive law of sympathetic magic (Frazer, 1922/1963; Mauss, 1950/2001; Tylor, 1871/1974; Nemeroff & Rozin, 2000; Rozin & Nemeroff, 1990).

The law of contagion (LOC) is the belief that two entities that make contact will permanently transfer some properties (or essence) from the source to target. Rozin and collaborators have carried out numerous studies of the LOC (for a review see, Rozin and Nemeroff, 2002). For instance, in one experiment, participants would not drink a glass of juice in which the experimenter briefly put a dead, sterilized cockroach into the glass. Likewise, surveys have shown that many people would not want to touch a dead body or sleep in a nice hotel room in which another person had died the night before. It has long been thought that, with the rise of rationality, science, and technology, belief in magic, superstition, the paranormal and even religion would fade away (Frazer, 1922/1963; Mauss, 1950/2001). Indeed, most present-day research considers such beliefs only in the context of children or primitive tribes (e.g., Frazer, 1922/1963; Lévy-Bruhl, 1949/1975). Nevertheless, magical beliefs are shared in both well-developed and less-developed nations. Rozin and Nemeroff (2002) contend that magical thinking is a cognitive heuristic that facilitates decision making.

Rozin and Fallon (1987) maintain that the belief in the LOC is often expressed as the disgust response. Disgust, a basic emotion, is characterized a facial expression including gape. In humans, the response stems from the withdrawal reaction to unpleasant tastes, which is observed in many mammals including human infants. However, according to Rozin and Fallon (1987), while the disgust response and belief in the LOC may have originated thusly, these phenomena spread via cultural evolution to other items that one's culture finds offensive (e.g., certain moral offenses).

Thus, the belief in the LOC manifests as the disgust response, for which previous research has identified certain elicitors. However, I contend that other necessary elicitor are cultural symbols and the association of objects, for which the disgust response and belief in LOC protect the integrity of the self-concept and reduce cognitive dissonance. A product's image/symbolism consists of abstract beliefs that refer to entities in the culturally constituted world (Levy, 1981; McCracken, 1988), such as, for instance, cultural categories (e.g., gender, ethnicity) or cultural principles (e.g., norms, values). In this way, image/symbolism is a product of cultural-level processes. Further, while Rozin and Fallon (1987) focused on a subset of cultural associations (e.g., moral offenses), I contend that all cultural-level associations of an object are in fact the essence of the object, and hence, can transfer to individuals at contact. Along similar lines, Mauss (1902/1972) suggested that essence comprises all of the important properties of the source.

In summary, Allen and colleagues (Allen & Ng, 1999; Allen et al, 2008) and Sirgy's (1982) proposals rest on the

assumption that cognitive dissonance reduction motivates consumers to choose a product whose image is congruent with their self-concept. However, in my view, this dissonance reduction can only be felt if one believes that the image (i.e., essence) of the product can be transferred to the self-concept at contact (i.e., believes in the LOC). Thus, I propose that believing in the LOC leads people to seek out products with image that is congruent with the self-concept, that is, items that symbolize the values that they personally support. Further, because belief in the LOC manifest as the disgust response, and individuals differ in response sensitivity (Rozin et al, 1999), individuals who are easily disgusted should most strongly strive for product-image congruity, and feel the most dissonant when using an incongruent product. Using a survey design, Study 1 found that participants who scored highly on Rozin et al's (1999) Disgust Scale (e.g. are easily disgusted by things such as dead bodies, etc) were more likely to report that they evaluate the image of a product during product choice, and a residual regression procedure showed that participants who are easily disgusted also had the closest congruency between product image (e.g., human values symbolized product) and self-concept and values across diverse product categories (e.g., cars, and food group choice). Using experimental designs, Study 2 showed that, compared to participants are not easily disgusted, participants who are easily disgusted felt more dissonant when they imagined using products with images that were incongruent with their self-concept and values, and Study 3 showed that they felt more dissonant when they consumed a product incongruent with their self-concept (even when the product consumed was not what the experimenter claimed).

- Allen, M.W. & Ng, S.H. (1999). The direct and indirect influences of human values on product ownership. *Journal of Economic Psychology*, 20(1), 5-39.
- Allen, M.W., Gupta, R., & Monnier, A. (2008). The interactive effect of cultural symbols and human values on taste evaluation. *Journal of Consumer Research*, 35 (2), 294-308.
- Aronson, E. (1969). The theory of cognitive dissonance: A current perspective. In L. Berkowitz (Ed.). *Advances in Experimental Social Psychology*, Volume 4, pp1-34. New York: Academic Press.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, Category: Stanford University Press.
- Frazer, J. G. (1922/1963). *The golden bough: A study in magic and religion*. New York: Maximillan.
- Levy, S. (1981). Interpreting consumer mythology: A structural approach to consumer behavior. *Journal of Marketing*, 45(3), 49-61.
- Lévy-Bruhl, L. (1949/1975). *The notebooks on primitive mentality*. Oxford: Blackwell.
- Mauss, M. (1950/2001). *A general theory of magic*. London and New York: Routledge.
- McCracken, G. D. (1988). *Culture and consumption: New approaches to the symbolic character of consumer goods and activities*. Bloomington, IN: Indiana University.
- Nemeroff, C., & Rozin, P. (2000). The makings of the magical mind: The nature and function of sympathetic magical thinking. In K. S. Rosengren, C. N. Johnson, & P. L. Harris (Ed.), *Imagining the impossible. Magical, scientific, and religious thinking in children* (pp. 1-34). New York: Cambridge University Press.
- Rozin P, Haidt, J., McCauley, C., Dunlop, L., & Ashmore M. (1999). Individual Differences in Disgust Sensitivity: Comparisons and Evaluations of Paper-and-Pencil versus Behavioral Measures. *Journal of Research in Personality*, 33, 330-351
- Rozin, P. & Nemeroff, C (2002). Sympathetic magical thinking: The contagion and similarity “heuristics”. In Gilovich *Heuristics and Bases*, New York: Cambridge University Press.
- Rozin, P., & Fallon, A. E. (1987). A perspective on disgust. *Psychological Review*, 94, 23–41.
- Rozin, P., & Nemeroff, C. (1990). The laws of sympathetic magic. A psychological analysis of similarity and contagion. In J. W. Stiegler, R. A. Shweder, & G. Herdt (Ed.), *Cultural psychology. Essays on comparative human development* (pp. 205-232). Cambridge, England: Cambridge University Press.
- Sirgy, M.J. (1982). Self-concept in consumer behavior: A critical review. *Journal of Consumer Research*, 9, 287-300.
- Tylor, E. B. (1871/1974). *Primitive culture: Research into the development of mythology, philosophy, religion, art, and custom*. New York: Gordon Press.

The Cinderella Effect: Can Using Brands Really Change Who We Are?

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Consumers are often motivated to own and use products by a desire to create a more positive self-image. Well-known brands with appealing personalities, such as Victoria's Secret (feminine, glamorous, good-looking), are particularly useful for consumers wanting to enhance a self-image in line with a brand's personality traits (Escalas and Bettman 2003; Sirgy 1982). The idea that possessions can change self-perceptions is well accepted among consumer researchers (Fournier 1999; McCracken 1989; Sirgy 1982; Solomon 1983).

But, can using a brand really change who we are? To address this question, we employ an experimental paradigm that allows us to measure a consumer's self-concept before and after they have used a brand associated with an appealing personality trait. Using this paradigm, we capture changes in the self-concept attributed to brand-related personality traits. Further, we identify the type of consumer most likely to experience self-concept changes, based on the implicit theories that individuals hold about their personalities. Entity theorists believe traits are fixed and engage in behaviors that maximize positive judgments about themselves, whereas incremental theorists believe traits are malleable and engage in behaviors that maximize learning opportunities to improve themselves (Dweck 2000; Molden and Dweck 2006). These profiles suggest that entity theorists rely on external means of self-enhancement, such as brands, because they do not believe that their direct efforts will lead to positive self-change; incremental theorists tend to rely on internal means of self-enhancement, because they believe that their efforts will be rewarded by self-improvement. Thus, we propose that using an appealing brand is more likely to lead to self-concept change for entity rather than incremental theorists.

Study 1: Does Victoria's Secret Make You Feel Good-Looking?

We tested our prediction in a field experiment with consumers at a local shopping mall, who were asked to use a Victoria's Secret shopping bag during their shopping trip. We selected Victoria's Secret as the target brand due to its strong and appealing brand personality, which is associated with traits such as good-looking, feminine, and glamorous. Self-concepts were measured by asking consumers whether a set of personality traits (including those associated with Victoria's Secret) described them, before and after using the shopping bag. Belief in entity versus incremental theories of personality was measured by using the Implicit Persons Theory Measure (Levy et al. 1998).

We found that, relative to incremental theorists, entity theorists perceived themselves to be better-looking, more feminine, and more glamorous after carrying the Victoria's Secret shopping bag. Differences between these groups were not evident for personality traits unconnected to the Victoria's Secret brand, which rules out response biases, general affective states, and contextual factors as possible alternative explanations.

Study 2: Does MIT Make You Feel Intelligent?

We replicate and extend our study 1 findings using a different brand (MIT), different product (ball point pen), different respondents (male and female MBA students), and different brand usage context (longer-term brand ownership). Also, the MIT brand is associated with different personality traits, such as intelligent, leader, and hard-working. We asked MBA students to use an MIT pen for six weeks. Our measures were similar to those of study 1. We found that after using the MIT pen, entity theorists perceived themselves to be more intelligent, more of a leader, and harder-working, relative to incremental theorists. Differences between groups were not found for personality traits unconnected to the MIT brand. Additionally, we found that after using the MIT pen, entity theorists formed stronger self-brand connections to MIT than did incremental theorists.

Thus, in the first two studies, we find that, relative to incremental theorists, entity theorists perceive themselves to be better-looking, more feminine, and more glamorous after using the Victoria's Secret shopping bag (study 1) and more intelligent, more of a leader, and harder-working after using an MIT pen (study 2). In the next two studies, we explore the reasons for these differences. We propose that entity theorists, who are more likely to rely on external means of self-enhancement, are more prone to forming strong self-brand connections with appealing brands, which leads to salient aspects of the brand being incorporated into the self. We tested this prediction in the following studies by subliminally priming self-brand connections to a brand (Under Armour), and comparing the responses of entity and incremental theorists in terms of self-concept change.

Studies 3 and 4: Underlying Mechanism of Self-Concept Change

We primed self-brand connections for the Under Armour brand, which is associated with the personality trait “athletic.” We embedded the prime in a lexical decision task. Before each letter string was presented, participants were shown a row of X’s placed in the center of the computer screen for 500ms. For the prime, the subliminal presentation of the word “I” (for 17 ms) was immediately followed by the subliminal presentation of “Under Armour” (for 17 ms). After the prime, a letter string was presented and participants made their choices.

In study 3, we used the same measure of self-concept as in our prior studies, and each participant’s self-concept was measured before and after completing the lexical decision task. As predicted, relative to incremental theorists, entity theorists perceived themselves to be more athletic after receiving the self-brand connection prime.

In study 4, we used a more indirect measure of self-concept by using response latencies (Markus and Kunda 1986). Participants were asked a set of personality traits described them (including athletic), and the time to respond “yes” or “no” was measured. Using the same self-brand connection prime, we found that relative to incremental theorists, entity theorists responded faster that a personality trait “athletic” described them after receiving a self-brand connection prime. Although researchers have long believed that brands can be used for self-enhancement purposes, we provide the first empirical evidence that self-concepts really do change when consumers choose and use appealing brands. We also find that not all consumers respond in this way, with entity theorists being more influenced by brands than are incremental theorists. We also find that self-brand connections play a key role in the process.

Dweck, Carol S. (2000), *Self-Theories: Their Role in Motivation, Personality and Development*, Philadelphia: Psychology Press.

Elliott, Elaine S. and Carol S. Dweck (1988), “Goals: An Approach to Motivation and Achievement,” *Journal of Personality and Social Psychology*, 54 (1), 5-12.

Escalas, Jennifer E. and James R. Bettman (2003), “You Are What They Eat: The Influence of Reference Groups on Consumers’ Connections to Brands,” *Journal of Consumer Psychology*, 13 (3), 339-348.

Fournier, Susan (1998), “Consumers and Their Brands: Developing Relationship Theory in Consumer Research,” *Journal of Consumer Research*, 24 (March), 343-373.

Markus, Hazel and Ziva Kunda (1986), “Stability and Malleability of the Self-Concept,” *Journal of Personality and Social Psychology*, 51 (4), 858-66.

McCracken, Grant (1989), “Who Is the Celebrity Endorser? Cultural Foundations of the Endorsement Process,” *Journal of Consumer Research*, 16 (December), 310-321.

Molden, Daniel C. and Carol S. Dweck (2006), “Finding ‘Meaning’ in Psychology: A Lay Theory Approach to Self-Regulation, Social Perception, and Social Development,” *American Psychologist*, 61 (3), 192-203.

Sirgy, M. Joseph (1982), “Self-Concept in Consumer Behavior: A Critical Review,” *Journal of Consumer Research*, 9 (December), 287-300.

Solomon, Michael R. (1983), “The Role of Products as Social Stimuli: A Symbolic Interactionism Perspective,” *Journal of Consumer Research*, 10 (December), 319-329.

The Persuasive Power of Regulatory Non-fit: The Moderating Role of Involvement in Regulatory Fit Effects

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Past research has shown that persuasive appeals that fit (vs. conflict) with a person’s regulatory focus tend to be more persuasive (e.g., Aaker & Lee, 2001). This effect is driven by the ease or fluency with which people are able to process fit information (Lee & Aaker, 2004) and is found primarily under low-involvement conditions when people use regulatory focus as a filter to selectively process information (Wang & Lee, 2006). What are the implications for the regulatory fit effect on persuasion, however, when people are motivated and able to process persuasive appeals thoroughly? It is our belief that whichever type of information is processed more deeply, assuming it is convincing, will be more persuasive.

Regulatory nonfit information should require more extensive processing to fully comprehend due to the fact that it is inconsistent with people's current motivational orientation or way of thinking. Indeed, when we look beyond the regulatory focus literature, we find evidence to suggest that people pay more attention to nonfit information when they are willing and able to devote the necessary processing resources. The stereotype literature, for instance, has shown that people exhibit better recall for stereotype-inconsistent information, but only under high-elaboration conditions; otherwise, stereotype-consistent information is better recalled (e.g., Stangor & Duan, 1991). Additionally, the schema congruity literature has shown that people elaborate more on and prefer stimuli that are moderately incongruent with an activated category schema, but only when they are sufficiently motivated to process incongruent information; otherwise, congruent stimuli are preferred (e.g., Meyers-Levy & Tybout, 1989).

Therefore, based on our theorizing and the supporting evidence, we predicted that people would be more persuaded by nonfit appeals under high-involvement conditions, but more persuaded by fit appeals under low-involvement conditions. We tested this hypothesis in Experiment 1, manipulating level of involvement (high vs. low), regulatory focus (promotion vs. prevention), and appeal type (promotion vs. prevention) in a between-subjects design ($N = 263$), collapsing regulatory focus and appeal type conditions into fit and nonfit cells for analysis. Participants in the promotion-prime condition were asked to list five current hopes or aspirations as well as three attributes they would ideally like to possess, whereas those in the prevention-prime condition were asked to list five current duties and obligations as well as three attributes they ought to possess (Higgins et al., 1994; Higgins, Shah, & Friedman, 1997). Next, they were exposed to a high- or low-involvement manipulation (Briley & Aaker, 2006). Participants then read one of two advertisements for Welch's grape juice, one emphasizing its promotion benefits and the other emphasizing its prevention benefits (Aaker & Lee, 2001). Finally, they evaluated the target product. As expected, a two-way interaction between involvement and regulatory fit emerged ($p = .001$), whereby nonfit (fit) appeals were more persuasive under high- (low-) involvement conditions. These results provide the first evidence that regulatory nonfit appeals may indeed be more persuasive than fit appeals, but only when people are motivated and able to process nonfit information.

Experiment 2 was designed to test the robustness of the nonfit effect under high involvement as well as to provide insight into the underlying process ($N = 117$). Specifically, we predicted that nonfit appeals would prompt greater processing motivation, resulting in greater persuasion. In order to test this prediction, all participants were first told that the study was very important and instructed to pay close attention. They were then given a promotion or prevention prime (see Experiment 1) and asked to read a promotion- or prevention-oriented Welch's appeal. Participants then evaluated the product and reported their processing motivation (i.e., how involved and interested they were while processing the appeal). The results revealed a main effect of regulatory fit on persuasion ($p = .01$), such that nonfit (vs. fit) appeals elicited more favorable brand attitudes under high-involvement conditions. The results also revealed the predicted main effect of regulatory fit on processing motivation ($p < .001$), such that participants were more motivated while reviewing the nonfit (vs. fit) appeal. Finally, we found that heightened processing motivation mediated the positive relationship between nonfit appeals and brand attitudes, thus providing support for the processing motivation mechanism.

Experiment 3 was designed to provide further evidence of the mechanism underlying the regulatory nonfit effect ($N = 223$). We reasoned that if highly involved people were more motivated while processing nonfit (vs. fit) information, then those exposed to nonfit (vs. fit) appeals should be more sensitive to differences in argument strength. Therefore, in addition to priming regulatory focus (asked to write an essay about their hopes and aspirations or duties and obligations; Higgins et al., 1994) and giving all participants a high-involvement manipulation (told that the advertised sun protection product, SunSkin, was targeted exclusively to college students and would be launched locally in just a few months; Wang & Lee, 2006), we also manipulated the strength of the message arguments. Specifically, participants were exposed to one of four appeals—strong promotion, weak promotion, strong prevention, or weak prevention—followed by a request to evaluate the product. Aside from a main effect of argument strength ($p < .001$), whereby strong appeals elicited more favorable attitudes, the results also revealed the expected two-way interaction between argument strength and regulatory fit ($p = .05$), such that participants exposed to nonfit appeals were more discerning between strong and weak arguments ($M = 5.27$ vs. 2.91 , *difference* = 2.36) than those exposed to fit appeals ($M = 4.83$ vs. 3.16 , *difference* = 1.67). Thus, these results provide further evidence of process underlying the regulatory nonfit effect on persuasion by conforming to the premise that if people exposed to nonfit (vs. fit) appeals are indeed more motivated, they should be more sensitive to

differences in argument strength.

In summary, the results across the three experiments provide convergent evidence for the hypothesized moderating role of involvement in regulatory focus-based persuasion. Whereas fit appeals are more persuasive under low-involvement conditions, nonfit appeals are more persuasive under high-involvement conditions. Furthermore, we find that the nonfit effect on persuasion is the result of heightened processing motivation, whereby people are more discerning of argument strength. These results provide the first evidence that regulatory nonfit appeals may be more persuasive than fit appeals, but only when people are motivated and able to process nonfit information.

- Aaker, J. L., & Lee, A. Y. (2001). I seek pleasures, we avoid pains: The role of self regulatory goals in information processing and persuasion. *Journal of Consumer Research*, 28, 33–49.
- Briley, D. A., & Aaker, J. L. (2006). When does culture matter? Effects of personal knowledge on the correction of culture-based judgments. *Journal of Marketing Research*, 43, 395–408.
- Higgins, E. T., Roney, C., Crowe, E., & Hymes, C. (1994). Ideal versus ought predilections for approach and avoidance: Distinct self-regulatory systems. *Journal of Personality and Social Psychology*, 66, 276–286.
- Higgins, E. T., Shah, J., & Friedman, R. (1997). Emotional responses to goal attainment: Strength of regulatory focus as moderator. *Journal of Personality and Social Psychology*, 72, 515–525.
- Lee, A. Y., & Aaker, J. L. (2004). Bringing the frame into focus: The influence of regulatory fit on processing fluency and persuasion. *Journal of Personality and Social Psychology*, 86, 205–218.
- Meyers-Levy, J., & Tybout, A. M. (1989). Schema congruity as a basis for product evaluation. *Journal of Consumer Research*, 16, 39–54.
- Stangor, C., & Duan, C. (1991). Effects of multiple task demands upon memory for information about social groups. *Journal of Experimental Social Psychology*, 27, 357–378.
- Wang, J., & Lee, A. Y. (2006). The role of regulatory focus in preference construction. *Journal of Marketing Research*, 43, 28–38.

How Message Processing Affects Perception

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A “Mere-Naming” Effect: The Dual Effects of Metacognitive Ease on Importance Judgments

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Think back to the last time you read about an interesting psychological effect or an economic principle. Did the authors name the finding, and if so, might their act of merely naming the finding (vs. not naming it) have affected your perceived importance of the finding? What about now—as you try to recall the finding, how has the fact that it had a name (vs. not) influenced your judged importance of the finding? Might the authors’ act of merely naming the finding have increased your perceived ease of understanding the effect then, and also the perceived ease with which you recall the effect now; and why should such feelings of ease have any impact on your perceived importance of the finding?

Existing research has established that subjective feelings of ease can arise while processing a target stimulus. For instance, prior exposures to a target stimulus or improved clarity of visual features of the stimulus can result in the perceptual features of the stimulus being processed more easily, and increased expectancy of seeing the stimulus can make processing of its meaning feel easy (Lee and Labroo 2004; Reber et al. 1998; Zajonc 1980). It has further been argued that because things that are personally relevant and important are processed more easily, once feelings of ease arise people mistakenly make a reverse inference that ease must equal personal relevance and importance. Thus, feelings of ease can increase perceived importance of a target stimulus, its perceived relevance, and liking towards the stimulus.

In the current research we argue that merely naming (vs. not naming) a finding also elicits subjective feelings of ease. But in contrast to existing studies, we further show that the impact of ease on perceived importance of the finding can depend on whether people are making inferences about how understandable or how memorable the finding is. In particular we suggest that feelings of ease that arise from merely naming a finding might be associated with how memorable or how understandable the presented information is. If people associate ease with how memorable the information is, the finding appears more important. This is because things that are important are usually recalled more easily, but people also mistakenly reverse this inference. Thus, information that feels easy-to-recall is also judged more important. However, if alternatively, ease is associated with understanding the information, the finding appears unduly simplistic, less novel, and unimportant. This is because usually people exert more effort to understand information they think is important, and they thus equate importance with effort-to-understand. But when trying to understand information, people also invert this relationship and infer that feelings-of-effort equal importance. In this case, subjective difficulty, not ease, increases the perceived importance, and naming a finding makes it feel easy-to-understand and trivial. We test these effects across five experiments.

Across five experiments, participants evaluate a popular research finding: a psychological effect, an economic principle, a math theorem, a jury decision, or funding of medical research. We manipulate ease of processing by either associating a name with the finding or not, and then attribute those feelings of ease either to recalling or understanding the information. Specifically, experiments 1a-b examined the presence of a name (vs. no name) atop the descriptions of a mathematical theorem or jury decision, and resulted in participants finding the information more important when making a memory-based evaluation in which participants were primed to focus on recall but less important when making a stimulus-based one in which they were primed to focus on understanding. A post-test revealed that including the name increased the perceived ease-of-processing. However, depending on whether ease was associated with recalling or understanding information, ease increased or reduced, respectively, the perceived importance of the findings. In experiment 1c, we further explored this interaction with an economic principle and found that ease of processing mediates the effect such that ease-of-recall is positively correlated with importance, while ease-of-understanding is negatively correlated with importance. Experiment 2 additionally included a control group which was not primed to strategy, but participants endorsed which strategy they had used after they evaluated the importance of the finding. We found that naming a finding always increased feelings of ease, but its effects on importance were driven by the extent to which

participants reported having judged the finding for memory or understanding.

Finally, in experiment 3 we extended these findings to judgments pertaining to the importance of funding research with regards to a medical condition. We additionally investigated who is more likely to fall prey to such reverse inference rules, people who pay more or less attention to information? We predicted that although low attention people usually fall prey to heuristics, in the case of these particular inference rules it will be people high in attention who will more likely fall prey to such rules. This is because people who pay more (vs. less) attention to information are also those people who are more likely to put effort to understand information that is important. Thus, it is likely that they will be more prone to associate effort-to-understand with importance. Also, ironically, it is these high attention people who will be more likely to recall important information more easily, because they probably attended to the important information more carefully when they came across it. Thus, for them, ease of recall is also more likely to be associated with perceived importance of information. We found that this is indeed the case.

As a set, these studies thus demonstrate that merely naming a finding always increases ease of processing the information, but ease can increase or decrease perceived importance of that finding depending on whether decision makers associate ease with memory or with understanding. Thus, the direction of impact of naming a finding on its perceived importance is moderated by the inference rule people use (memorable or understandable) and the extent of influence of naming a finding on its perceived importance is mediated by the feelings of ease that result from naming the finding.

The “Original=Better” Intuition. The Impact of Primacy Indicators on Preferences.

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We suggest in a series of studies that primacy indicators (i.e., labels that point to the “first-ness” of an object among similar objects) might influence consumer choices because they enhance perceived authenticity. This may explain why brands often communicate to consumers when they originated. For example, Heinz states that its tomato ketchup dates back from 1869. Heinz’ label “since 1869” might not only indicate that Heinz has been around for a long time, but also convey that it was the pioneer in the ketchup category. This induced perception of being first might positively affect the perceived authenticity of the brand. Several studies indicate the importance of authenticity in consumption decisions: consumers seek authenticity in brands (Holt, 2002), tourism (Cohen, 1988), personal possessions (Grayson & Shulman, 2000), and movie sequels (Leigh et al., 2006). According to Gilmore and Pine (2007), today’s consumers are “longing” for authenticity because they find so many fakes and phonies in their lives. We suggest that primacy indicators may increase the perceived authenticity of a stimulus and therefore enhance consumer preferences.

In study 1a, participants imagined travelling to India and drinking a typical Indian product (i.e., “Dahlicious Lassi”). In the experimental condition, a primacy indicator, “Since 1923”, was mentioned on the label of the bottle. In the control condition, the primacy indicator was absent. When a primacy indicator was present, Dahlicious Lassi was perceived as being higher in quality; this effect was mediated by perceived pioneership. Study 1b extended our findings beyond brands and typical consumer products and tested whether the observed primacy effect is limited to the very first item or whether it implies a preference for an earlier item – not necessarily the first – over subsequent items. Participants indicated their preference for one of two movies after seeing the two movie trailers. The movie trailers were labeled “Life on Earth I” and “Life on Earth II” (“first” condition) or “Life on Earth II” and “Life on Earth III” (“earlier” condition). Participants preferred “Life on Earth I” to “Life on Earth II” but did not prefer “Life on Earth II” to “Life on Earth III” (H1). We made use of nature documentaries to rule out the alternative explanation that one would need to watch the movies in proper order to understand ‘the plot’. Study 1c eliminates an interpretation in terms of preference for earlier stimuli entirely. Participants listened to two alternate versions of the same song, released in 1964 and 1967, but were told that another version existed. In the earlier condition, the third alternate version was presumably released in 1962 whereas in the control condition, this third version was presumably released in 1969. We predicted that the 1964 version would be preferred to the 1967 version in the “first” condition, as the 1964 version could be perceived as being first, but not in the ‘earlier’ condition, where the 1964 version was certainly not the first. This pattern of results was obtained. Thus, the effect did not

extend to stimuli that appeared “earlier” rather than “later” (study 1b&c).

Study 1 demonstrates that primacy indicators enhance the attractiveness of a stimulus. We propose that this effect is driven by the perceived authenticity of that stimulus. Perceived authenticity might explain why “earlier” stimuli – which are not the first – are not preferred to subsequent stimuli. After all, only the very first stimulus truly may be considered authentic. We test the effect of perceived authenticity on preferences in three studies. Study 2a shows that a CD (from a fictive music band Amil) labeled “Amil I” is perceived as being more authentic than “Amil III” (H2) and that perceived authenticity is related to relative preferences (H3). Study 2b shows that participants rate an ‘original’ picture more favorably than other participants who were led to believe that that same picture was photoshopped (digit alteration harms the perceived authenticity of a picture). Study 2c shows that perceived authenticity determines preferences (H3) even when implicit order is not important anymore. We presented abstract paintings in different rotations and found that seemingly authentic rotations (0° & 360°) were preferred over any other rotation (although 90° was actually the real original orientation). Summarized, study 2 demonstrates that perceived authenticity positively affects consumer evaluations.

Study 3 aimed to replicate all previous findings in a single study and examined the hypothesis that perceived authenticity mediates the effect of a primacy indicator on preferences (H4). In addition, we hypothesized that the effect of a primacy indicator might be reversed in some product categories. That is, in product categories where order of entry and quality are negatively correlated (e.g., later objects are ameliorated versions of earlier objects), recency indicators might be more important than primacy indicators. As a consequence, for technological products (a) perceived authenticity should not determine consumer preferences (H5a) and (b) the last, rather than the first, product should be preferred (H5b). We used a similar procedure as in study 2a and manipulated the product category: CDs of a music band Amil (non-technological condition) vs. Amil software programs (technological condition). We told that each Amil-album/version is merely a number indicating order of release. In the non-technological condition, we replicated the positive impact of primacy indicators on perceived quality: Amil I was preferred over Amil III. In addition, this impact was mediated by perceived authenticity. However, in the technological product category, perceived authenticity was not related to quality perceptions and Amil III was preferred over Amil I.

Our studies show that brands may benefit from using primacy indicators because these might raise their perceived authenticity which, in turn, might positively affect brand preference. By its very nature, a primacy indicator suggests pioneership of a brand in the given category. However, consumers typically do not know the pioneering brand in a given product category (Alpert & Kamins, 1995). For those categories, any given brand – pioneers and followers alike – may profit from the use of some sort of primacy indicator. Future studies are needed to investigate how consumers deal when multiple brands are suggesting they are the pioneer.

- Alpert, F.H., Kamins, M.A. (1995), "An empirical investigation of consumer memory, attitude and perceptions towards pioneer and follower brands", *Journal of Marketing*, 59, 34-45.
- Cohen, E. (1998). Authenticity and Commoditization in Tourism. *Annals of Tourism Research*, 15, 371–386.
- Gilmore, J.H., & Pine, J. (2007). *Authenticity: what consumers really want*. Harvard Business School Press.
- Grayson, K., & Shulman, D. (2000). Indexicality and the Verification Function of Irreplaceable Possessions: A Semiotic Analysis. *Journal of Consumer Research*, 27, 17-30.
- Holt, D.B. (2002). Why do brands cause trouble? A dialectical theory of consumer culture and branding. *Journal of Consumer Research*, 29, 70-90.
- Leigh, T.W., Peters, C. & Shelton, J. (2006). The consumer quest for authenticity: the multiplicity with meanings within the MG subculture of consumption. *Journal of the Academy of Marketing Science*, 34, 481-493.

Creating a “Gut” Reaction: Assessing Responses to Visceral Cues in Weight Loss Advertising

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The weight loss industry has come under fire from the Federal Trade Commission (FTC) in recent years due to consumer claims that many weight loss product ads are designed in a deceiving manner. Illegitimate weight loss claims have created so much concern that a white paper call-to-action to investigate misleading weight loss ads has been filed. The fear is that illegitimate weight loss products/ services are contributing to the global obesity epidemic.

Interestingly, little attention has been garnered concerning the understanding of why consumers respond to potentially misleading weight loss claims. Intuitively, an understanding of why consumers fall prey to weight loss claims may aid academics, practitioners, and policy makers as they make important decisions relative to the weight loss industry and its practices. This study attempts to fill that void by applying a theory of visceral influences (Loewenstein 1996) to the context of weight loss advertising.

Theoretical Background. Loewenstein’s theory of visceral influences was developed to aid in explaining why consumers make decisions contrary to their long-term self-interest. In particular this theory has strong implications for a variety of consumption choices ranging from everyday general consumption choices to self-destructive activities such as drug and sexual addiction. At the core of the theory is the strength and allure of a goal or reward (e.g., Langenderfer and Shimp 2001; Loewenstein 1996). Visceral factors are drive states that have a direct hedonic impact on the relative desirability of various goods/activities and have a strong influence over the decisions consumers make (e.g., Loewenstein 1996; Nordgren et al. 2007). Traditional decision-making models do not account for the widespread phenomenon of consumers making decisions that may have an aversive effect on their long-term well-being (e.g., Loewenstein 1996; Loewenstein et al. 1997; Read and van Leeuwen 1998). In addition, the strength and allure of a visceral factor may explain why those who are intent on misleading and/or deceiving consumers successfully do so. Based on the theory of visceral influences, common visceral cues (cues associated with any reward linked to a visceral factor) used by scammers include proximity of reward, vividness of reward, and visual priming (Langenderfer and Shimp 2001).

Method & Results. Based upon a content analysis of 337 weight loss ads, composite ads were created to assess consumer response to visceral cues used in weight loss advertising. The content analysis reinforced interrelationships between three visceral cues: proximity of reward (temporal proximity of weight loss), visual prime (before/after photos), and vividness of reward (hedonic customer testimonials). These three visceral cues occurred together more than 75% of the ads. Next, in two experiments we test whether or not visceral cues lead to greater levels of buying impulse, greater product expectations, reduced cognition, and a shift in focus. In the first experiment, the main effect of each visceral cue was examined. Using a sample of 176 respondents, MANOVA results show that all three visceral cues were significantly (all p-values < 0.01) associated with greater buying impulse. Furthermore, the results show that both the visual prime and vividness of reward were significantly (all p-values < 0.05) associated with greater expectations of product effectiveness. An examination of the amalgamation of the visceral cues reveals that the effects are strongest when the three visceral cues are combined. In the second experiment, the combined effects of the visceral cues were examined in conjunction with involvement with body weight (IBW) as we predict that higher IBW will lead to greater visceral cue susceptibility. Eighty respondents viewed either a visceral weight loss ad (containing all three visceral cues) or a non-visceral ad (without visceral cues). MANOVA results again show that respondents viewing ads with visceral cues had a stronger buying impulse ($p < 0.01$) and greater expectations of product effectiveness ($p < 0.01$). Additionally, respondents were asked to list all thoughts, feelings, or impressions of the ad. Two independent coders then coded the responses into two categories: reward thoughts (e.g., positive thoughts about the visceral cues), and non-reward thoughts (e.g., skeptical thoughts about the ad). Results show that when the visceral cues were present, respondents recorded fewer cognitive responses ($p < 0.05$), more reward thoughts ($p < 0.01$) and fewer non-reward thoughts ($p < 0.01$). When examining the interaction, between visceral cues and involvement with body weight the results were as hypothesized. Respondents with a high involvement with body weight were highly susceptible to the visceral cues (all p-values < 0.05) while respondents with low involvement with body weight were relatively unsusceptible to the visceral cues.

Discussion. This research makes the following contributions. First, it addresses an area of public policy and marketing where there is a need for research to help shape future legislation regarding advertising practices in the weight loss industry. Second, it provides a preliminary empirical examination of visceral cues in an advertising context. Third, it reveals that the effects of visceral cues are moderated by an individual's involvement with the reward. Furthermore, it shows that visceral cues have the power to shift attention towards reward components of an ad. This particular finding has strong implications which suggest that weight loss advertisers can use visceral cues to shift consumers' attention away from disclaimer information. Finally, this research identifies a highly vulnerable group, individuals highly involved with body weight.

Langenderfer, Jeff and Terrence A. Shimp (2001), "Consumer Vulnerability to Scams, Swindles, and Fraud: A New Theory of Visceral Influences of Persuasion," *Psychology and Marketing*, 18 (July), 763-83.

Loewenstein, George F., Daniel Nagin, and Raymond Paternoster (1997), "The Effect of Sexual Arousal on Expectations of Sexual Forcefulness," *Journal of Research in Criminal Delinquency* 34 (4), 209-29.

Loewenstein, George F. (1996), "Out of Control: Visceral Influences on Behavior," *Organizational Behavior and Human Decision Processes*, 65 (March), 272-92.

Nordgren, Loran F., Joop van der Plight, and Frenk van Harreved (2007), "Evaluating Eve: Visceral States Influence the Evaluation of Impulsive Behavior," *Journal of Personality and Social Psychology*, 93 (1), 75-84.

Read, Daniel and Barbara van Leeuwen (1998), "Predicting Hunger: The Effect of Appetite and Delay on Choice," *Organizational Behavior and Human Decision Processes*, 76 (November), 189-205.

WORKING PAPERS

Eye Movement Patterns on Innovative and Non-innovative Yellow Pages Advertisements

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To learn how Yellow Pages ads capture consumers' attention, eye tracking data and think-aloud protocols were collected while people 1) chose businesses in the Yellow Pages and 2) went through a reduced issue of the YP where they either saw innovative or non-innovative ads. The two parts of the study addressed: 1) what particular ad characteristics cause consumers with high task motivation or under time pressure to notice and decide on an ad, 2) whether consumers decide more often on an ad which they view longer, 3) whether innovative advertisements attract more attention than the non-innovative equivalent ads, and 4) whether innovative advertisements are recalled better than the non-innovative equivalent ads.

Does Calorie Information Reduce Calorie Intake? An Empirical Test of the Calorie Rule.

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Some cities recently began requiring fast-food chains to post the caloric content of menu items using numbers the same size as those used to list the price. The effectiveness of this new regulation was tested. Participants viewed a menu containing typical foods offered by fast-food restaurants (e.g., hamburgers, salads) labeled with either the price and caloric content or only the price, and were asked to make a lunch selection. The presence of caloric information did not reduce caloric intake overall, although it did reduce caloric intake for males. Thus, calorie information may be limited in its effectiveness for reducing caloric intake.

Measuring the Restaurant Experience: It's Not Good or Bad, It's Fun and Functional.

Nathalie Spielmann, Concordia University, Canada*

Via the development of the two-tiered Restaurant Personality Scale, the multiple layers of the intangible and tangible components of experiential consumption are defined using a fun/functional approach rather than a positive/negative one. Across four studies it was shown that hedonic and utilitarian values associated with reflective measures in the restaurant retail setting are more effective at capturing consumer expectations towards the consumption experience than are attribute-based measures. The results of this scale suggest a clearer understanding of image construction for the restaurant environment.

Mona Lisa with a Gucci Purse: How Fashion Images are Consumed

Barbara Phillips, University of Saskatchewan, Canada*

Edward McQuarrie, Santa Clara University

One of the key assumptions underlying much of the previous research regarding fashion is that all fashion advertising carries a simple aspirational message showing a model to be emulated. This paper reports a content analysis of three decades of fashion advertising to demonstrate that fashion ads are not simple vessels of aspiration. The paper then uses the

findings from a survey to examine how women consume fashion magazines. Finally, the paper reports the results of a set of interviews with “fashionista women” to develop a theory of why women consume fashion advertising as they do. These studies lead to the development of the Fashion Image Consumption (FIC) Framework which distinguishes five primary ways women consume the images in fashion ads.

The Effect of Authenticity and Fit with Company Abilities on Consumer Reactions to Corporate Social Responsibility Initiatives

Ethan Pancer, Queen's University, Canada*

Allison Johnson, University of Western Ontario, Canada

Organizations spend billions of dollars on corporate social responsibility (CSR), but many consumers have difficulty distinguishing genuine interest in social problems from merely investing in a charitable image for profit. We argue that responses to CSR are moderated by fit with company ability and mediated by perceived authenticity of the corporate image. Findings suggest that CSR actions aligned with the company’s abilities offer a greater risk/reward payoff than unrelated initiatives. It appears that there is an incentive for organizations to behave authentically, if they are confident the CSR action will be successful, providing a potential means to navigate consumer cynicism.

The Effect of Scarcity on Product Evaluation: Moderating Role of Mood and Argument Quality

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Ashesh Mukherjee, McGill University, Canada

This paper shows that mood and argument quality moderate the effect of scarcity on product evaluation. Our findings indicate that when mood is positive (negative), increasing scarcity increases (decreases) depth of processing. Further, when depth of processing is high, product evaluation is sensitive to argument quality; in contrast, when depth of processing is low, product evaluation is not influenced by argument quality. We close by highlighting the theoretical contributions of our research.

The Role of Message Referent and Outcome Type on Charity Advertising

Guangzhi Zhao, University of Kansas*

What is the best way to communicate a charitable cause to potential contributors? Four popular charity advertising appeals were delineated: help-self gain benefits, help-self avoid costs, help-other gain benefits, and help-other avoid costs. Projecting from research findings about individual processing of self-related versus other-related information, it was predicted that: (a) for a help-self charity advertising, a gain-benefit appeal would be more persuasive than an avoid-cost appeal; (b) for a help-other charity advertising, an avoid-cost appeal would be more persuasive than a gain-benefit appeal. An experimental study with 105 subjects using a 2 (message referent: self vs. other) x 2 (outcome type: gain-benefit vs. avoid cost) factorial design supports for the hypothesis.

Can Consumers Make Smarter Investment Decisions by Learning to Improve Their Affective Forecasting?

Karthik Easwar, Ohio State University*

Patricia West, Ohio State University

This research seeks to better understand how consumers’ investment decisions can be improved by reducing the well-documented “affective forecasting error.” Gilbert (2000, 2006) has shown that humans mis-forecast their affective

reactions to both good and bad events. We strive to improve investors' affective forecasting regarding investment outcomes by giving them the opportunity to observe their tendency to err, thereby reducing anticipated pain from failure. We intend to examine whether people can learn to correct for the affective forecasting error by experiencing it for themselves, observing someone else's experience, or receiving feedback on the discrepancies between their forecasts and actual feelings.

The VIP Phenomenon: The Role of Social Comparison in Status-Oriented Experiences

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Noah J. Goldstein, University of California, Los Angeles

Robert B. Cialdini, Arizona State University

Being a VIP is no longer just for the rich and famous. Many Americans are seeking out VIP treatment for the opportunity to attain the perception of status. This research provides insight into the cognitive processes involved in social comparisons in the context of VIP experiences. Being treated as a VIP allows one to feel special or unique. We show that the luxury treatment in itself is not as important as receiving special treatment that others do not. Such treatment allows individuals the self-enhancing effect of seeing themselves in a favorable light in comparison to others. Marketing implications are considerable.

The Impact of Cultural Orientation on Service Experiences: When Will the Status of Service Staff Make a Difference?

Jimmy Wong, University of Illinois, Urbana Champaign*

Sharon Shavitt, University of Illinois, Urbana Champaign

Individuals high in the cultural orientation of vertical individualism emphasize social hierarchy and, as a result, are sensitive to differences in status between service personnel, e.g., clinic receptionist and doctor. Two studies showed that, when responding to a scenario depicting a rude service provider, such individuals are more satisfied with and feel more favorably toward a high status service transgressor than a low status one. In contrast, the dissatisfaction and negative affect of individuals with low vertical individualism is not influenced by the service staff's status. This study adds to our understanding of the impact of culture on consumers' service experiences.

The Effect of Fairness and Psychological Closeness on Schadenfreude in a Consumption Context

Ethan Pancer, Queen's University, Canada*

Laurence Ashworth, Queen's University, Canada

This paper examines the roles of fairness and psychological closeness to a target on experiencing schadenfreude, taking pleasure in the downfall of an individual's product. Previous research (Brigham et al. 1997) found that the manipulation of deservingness of the misfortune had no effect on schadenfreude. This study argues that the deservingness of a target possessing a certain product (a perception of the observer) will result in the attenuation of schadenfreude. Participants felt more schadenfreude after witnessing the failure of a high-status product (vs. low-status), when the target was of distant psychological distance (vs. close), and when the product was undeserved.

Measuring Consumer Knowledge in the Face of Exaggeration and Sabotage

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Product recognition was measured with the over-claiming technique (OCT), a signal-detection-based measure.

Recognition accuracy is indexed by a respondent's ability to distinguish real products from non-existent products. We asked 145 students to rate their familiarity with 165 products under one of three conditions: respond honestly, exaggerate your knowledge, or sabotage the survey. Under exaggerate as well as honest instructions, accuracy scores remained valid: that is, they predicted actual product knowledge. Under sabotage instructions, respondents either (a) exaggerated indiscriminately, or (b) claimed to be more familiar with phony items than with real items. Results indicate the value of the OCT.

A Personal Touch: How Letting the Customer Choose the Cause of the Cause-Related Marketing Campaign Can Benefit Everyone

Stefanie Rosen, University of South Carolina*

Caglar Irmak, University of South Carolina*

Satish Jayachandran, University of South Carolina

Prior research has shown the importance of consumer involvement in customizing products. Extending this to cause-related marketing (CRM) campaigns, we demonstrate that when consumers choose the cause of the CRM campaign, they are more likely to purchase the product and willing to pay more for it. This effect is mediated by the perceived co-creation of value.

The Relationship Between Centrality and Opinion Leadership / Consumer Susceptibility to Interpersonal Influence

Seung Hwan (Mark) Lee, University of Western Ontario, Canada*

June Cotte, University of Western Ontario, Canada

This research examines the close friendship network (n=75) of an ethnic social club. Bridging two major streams of research and introducing a novel methodology to consumer behavior, the authors find a positive relationship between network centrality and opinion leadership, as well as between network centrality and consumer susceptibility to interpersonal influence. The findings suggest that individuals high in centrality can leverage their network position to become an influential member in their social group. Also, the findings suggest that individuals with high centrality are also susceptible to influence by other members in the network. Given the relative lack of research in the role of social networks in consumer behavior, the authors encourage further exploration into the benefits of occupying central positions in networks.

Reading a Book Can Change Your Mind: Changes in Attitudes to Food Production and Consumption in Readers of Michael Pollan's "The Omnivore's Dilemma"

Julia Hormes, University of Pennsylvania*

Katrina Fincher, University of Pennsylvania

Paul Rozin, University of Pennsylvania

Changes in attitudes towards food production and consumption were assessed at four time points in undergraduates who had read Michael Pollan's book "The Omnivore's Dilemma." Attitudes towards organic foods, local produce, meat, and food quality, opposition to government subsidies, distrust in corporations, and commitment to the environmental movement were significantly impacted by reading the book, resulting in actual behavior change, including increased consumption of organic foods and local produce. Attitude change persisted for six to twelve months, with distrust of corporations, commitment to the environmental movement, opposition to government subsidies, and perception of lowering food quality remaining significantly elevated.

Something's Gotta Give! The Role of Exchange Motives, Self-Construal, and Appeal Type in Charitable Support

Meghan Donohoe, Saint Mary's University, Canada*

Kate White, University of Calgary, Canada

The current research explores the conditions under which two types of charitable appeals (egoistic and altruistic) are most effective in eliciting positive donation intentions. It was predicted that the type of relationship orientation (communal versus exchange) and the level of self-construal (low versus high interdependence) would interact to predict consumer donation intentions in response to egoistic versus altruistic appeals. A counterintuitive result emerged, wherein when the charitable appeal was altruistic and an exchange relationship was primed, those high rather than low in self-construal reported more positive monetary donation intentions. The theoretical and practical implications of these findings are discussed.

Nostalgia as a Mixed Emotion

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Nostalgia is prevalent in many aspects of everyday life, especially in the marketplace. Advertisements, packaging, and automobiles have abounded with nostalgic themes. Despite the prevalence of nostalgia in the marketplace, little research has been done on the construct and no consistent definition exists in consumer behavior. Using hierarchical regression, the goal of this research is to demonstrate that nostalgia is a mixed emotion with opposite-valence emotions and to give a consistent definition of the term on which to base future research.

Preserve Self or Impress Others: Mortality Proximity and Guilt Advertising

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This research introduces mortality proximity as a moderator for two distinct motivations that influence advertising appeals evoking consumer guilt. Mortality proximity involves perceived proximity to self, such that proximal (vs. distal) mortality regards one's own (vs. someone else's) death. I hypothesize that proximal mortality will motivate self-preservation to facilitate guilt-lessening appeals encouraging self-indulgent consumption; and distal mortality will motivate impression management to assist guilt-magnifying appeals promoting socially desirable purchases. This research will aid the mortality literature by helping to understand when either motivation is activated, and the guilt literature by showing how guilt appeals are influenced within each process of mortality salience.

The Effects of Product Display Organization on Consumers' Visual Attention to Attributes

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Rong Zhou, Concordia University, Canada

Michael von Gruanu, Concordia University, Canada

Research has demonstrated that consumers' decisions are affected by display organization. However, the mechanism by which consumers' choices are affected remained unknown. This research addresses this limitation by using eye-tracking to measure consumers' visual attention at the point of purchase, as well as consumer choice. After examining display organization, participants used the other available information to make their purchase decisions. This study found that significant visual attention is paid to product characteristic information, more so than brand or price information. In addition, increased visual attention corresponded with increased purchase likelihoods.

A Controlled Experiment on Subliminal Messaging in Video Media

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The idea that consumers can be influenced without them being conscious of that influence continues to fascinate advertisers and concern consumer protection groups. The inherent difficulties of a controlled subliminal experiment are ensuring that the subject is influenced only by the subliminal content, and ensuring that researchers are able to measure the subconscious influence without further influence. The work presented outlines a clear, simple methodology that addresses subliminal video influence. The study involves the use of Ishihara Color Test Plates placed in video frames. The results of this study indicate that subliminal video messages are not effective in influencing exposed subjects.

Formative Belief-Elicitation Research in Social Marketing: Lesson from the Temporal Construal Theory

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Marco Yzer, University of Minnesota

The study is an attempt to introduce construal level theory to the framework of intent-driven behaviors. Replicating methodology of a formative qualitative research broadly used in social marketing and health communication, the authors show how time frame of behavior performance works as a moderator, affecting the salience and the number of attitudinal, normative and efficacious beliefs – the main antecedents of behavior. Theoretical and practical implications are discussed, and ideas for future research are suggested.

Tell Me How You Really Feel: How Expressing Attitudes Face-to-Face Can Change Evaluations

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Christine Ringler, Arizona State University*

Loraine Lau-Gesk, University of California, Irvine

Patti Williams, University of Pennsylvania

The research demonstrates the strong influence of lying behavior in face-to-face interactions on attitude formation and subsequent evaluations. Specifically, it shows how consumer evaluations are inflated when feedback occurs in a face-to-face mode, regardless of who asks the questions. In doing so, we develop a theory of lying behavior that demonstrates for cases where consumers have no existing attitude towards a product/service and have no reason to lie, they still inflate their attitudes when reporting them face-to-face. Because these initial attitudes are constructed on-the-spot, the initial lie is stored in memory as the “true” attitude, thus biasing subsequent consumer evaluations.

Linking Advertising, Materialism, and Life Satisfaction

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Eda Gurel-Atay, University of Oregon*

Muris Cicic, University of Sarajevo, Bosnia and Herzegovina

Melika Husic, University of Sarajevo, Bosnia and Herzegovina

Dave Webb, University of Western Australia, Australia

Andreas Herrmann, University of St. Gallen, Switzerland

This paper builds on research related to advertising, materialism, and life satisfaction by formally testing the effect of exposure to materialistic advertising on materialism, and the use of affective- versus cognitive-based expectations by materialistic versus non-materialistic people in their evaluations of their standard of living (SOL). Data were collected from seven countries (Australia, Bosnia/Herzegovina, Germany, Egypt, Korea, Turkey, and the USA). The results showed that exposure to materialistic advertising and social influence in buying behavior contributes to materialism. Materialism,

in turn, leads to the frequent use of all types of standards of comparisons to make judgments about SOL. As the use of these standards of comparisons increases, people evaluate their SOL more negatively, and these negative self-evaluations contribute significantly to dissatisfaction with life.

Moral Identity and Attributions of Corporate Social Responsibility

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Americus Reed, II, University of Pennsylvania
Jennifer Tong, Singapore Management University, Singapore

Companies increasingly rely on corporate social responsibility to garner good will and positive evaluations, yet little is understood about individual differences in consumers' sensitivity to such efforts. Two studies demonstrate that differences in individuals' moral identity reliably predict the attributions made about why a firm undertakes CSR efforts, which then predict firm evaluations. American participants' scores on the internalization dimension of moral identity, representing self-importance of moral behavior, predict their attributions. In contrast, Singaporean participants' symbolization scores, capturing social value of moral behavior, predict those same attributions. This research represents an important step in understanding internal, consumer-specific drivers of CSR effectiveness.

Implicit Attitudes toward Gambling: An Exploratory Study

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Vinay Kanetkar, University of Guelph, Canada

Based on recent findings on dual attitudes, we theorize that self-report measures are appropriate ways of assessing attitudes formed on the basis of deliberative mental processes while response latency measures are likely to assess associations formed on the basis of automatic processes. Less susceptible to social desirability bias, attitudes assessed with response latency measures are likely to diverge from those assessed with self-report measures when used to measure attitudes toward socially sensitive issues. We compared response latency measures and self-report measures of attitudes toward gambling. As hypothesized, we found that whereas mid-to-high risk gamblers showed neutral attitudes on self-report measures, they revealed ambivalent attitudes toward gambling on response latency measures. We discuss how response latency measures of attitudes may be used to assess attitudes toward socially sensitive issues.

Financial Decision Making among Older Adults: The Effects of Self-Reported Knowledge and Performance on the Iowa Gambling Task

Catherine Cole, University of Iowa*	Allison Kaup, University of Iowa
Sara Shivapour, University of Iowa	Mike Hernandez, University of Iowa
Dan Shivapour, University of Iowa	Natalie Denburg, University of Iowa

We investigate whether performance on the Iowa Gambling Task (an experimental decision-making task sensitive to prefrontal lobe dysfunction) and self-reported financial knowledge account for heterogeneity in the way older adults make financial decisions. Sixty-five older adults completed a written questionnaire with three related financial scenarios. In each scenario, they selected from different options and justified their choices. Preliminary results support the notion that not all older adults make bad financial decisions, but poor performers on the IGT are more likely to make riskier decisions as well as weaker articulation of reasons than good performers.

Liking Football is Not Enough: Exploring the Antecedents to Fantasy Sport League Consumption

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Stephen McDaniel, University of Maryland

Despite its explosive growth as a multibillion dollar industry, fantasy sport league consumption has received little attention from scholars. Using the technology acceptance model (TAM) and the media uses and gratification (U & G) theory as frameworks of this study, we explored the antecedents of fantasy sport league participation by incorporating attitude toward watching football on TV (FBATT), perceived football knowledge (PFK), perceived ease of use the website (PEU), perceived enjoyment of fantasy sports (PE), and gender. Interestingly, FBATT was not significantly related to participation intentions, while PFK, PEU, and gender had significant effects on PE and participation intentions. Further, gender had a significant moderating effect on the relationship between PFK and intentions.

“Gift Card Basics: Who Buys Them for Whom, Why, and How Much They Spend”

Caroline Austin, Montana State University*

Daniel Huffman, Montana State University*

Gift cards have changed the nature of gift giving (e.g., the monetary value of the gift is prominently displayed on the face of the card itself). We use a multi-method approach to examine consumers' gift selection criteria, and develop a conceptual model to explain the decision-making process when gift cards are an option.

Medium Maximization: Do Maximizers and Satisficers Differ in How They Evaluate Choices Using Non-monetary Points?

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Richard Yalch, University of Washington, Seattle

Edwin Love, Western Washington University, Seattle

A medium such as airline mileage or reward points has no monetary value. Although one would expect that a non-monetary medium has little impact on consumer choice, this research supports and advances the notion that the presence of a medium may undermine consumers' ability to select the best alternative. However, when greater outcome disparity is presented, the medium effect decreases with increased effort level, despite equal ratios. The authors examine whether individual differences in the tendency toward maximizing versus satisfying differ in susceptibility to the medium.

The Magical Powers of Supplements: Do Supplements Always Lead to a Healthy Lifestyle?

Sayantani Mukherjee, California State University, Long Beach*

Ingrid Martin, California State University, Long Beach*

This research examines whether dietary supplements “always” lead to a healthy lifestyle. A pilot study consisting of depth interviews and focus groups reveals two themes: 1) Consumers often use supplements to substitute for healthy practices such as exercising and balanced meals and supplement usage varies based on consumers' regulatory orientation; 2) Magical beliefs guide consumers' decisions regarding supplements. We propose to further investigate these preliminary themes in an experimental setting. We contribute to extant literature on remedy marketing, magical thinking and regulatory focus theory. This research also provides insights for regulators which can help in developing corrective interventions.

Consumers, Analogies and Drugs: The Influence of Expertise on Processing Analogies in DTC Ads

Marjorie Delbaere, University of Saskatchewan, Canada*

Malcolm Smith, University of Manitoba, Canada

Consumer learning is studied in the context of Direct-to-Consumer advertising for prescription drugs, specifically from the perspective of analogical learning. Differences in knowledge transfer between novices and experts are examined after exposure to an ad containing an analogical metaphor. Results from an experiment suggest that experts were not more persuaded by the ad than novices and that the experts were either unwilling or unable to process analogically. These findings are in contrast to previous studies that found experts better able to process analogically than novices. The findings suggest boundary conditions on the relationship between expertise and analogical learning.

The Value of Knowing What Customers Really Want: Interpersonal Accuracy as an Environmental Cue

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Ereni Markos, University of Massachusetts, Amherst

Nancy Puccinelli, Northeastern University

Tracy Noga, Bentley College

Dhruv Grewal, Babson College

While research has long recognized the importance of the retail environment to customer experience, there has been relatively little systematic research on how environmental cues, especially social ones, affect customer experience. Based on preliminary research, two studies were conducted to test the relationship between ability to accurately decode non-verbal behavior and customer perceptions of service quality in retail settings. Consistent with the hypotheses, employee interpersonal sensitivity predicted customer perceptions of service quality in retail settings. The implications of these results are discussed.

Escaping the Crosshairs: Reactance to Identity Marketing

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Jonah Berger, University of Pennsylvania

A large body of research suggests that targeting consumers based on social identity may lead to deeper customer loyalty, especially when the targeted identity is highly self-important. In contrast, three experiments demonstrate that identity marketing may have a dark side. Appeals that target consumer identities without considering consumer agency may threaten consumer freedom to express those identities, provoking consumer reactance and thus reducing product evaluations and purchase likelihood. Ancillary data also indicate that managers do not consider potential consumer reactance when crafting identity appeals, and that reactance may lead consumers to subsequently de-emphasize the targeted identity.

Dimensions of Consumer Social Responsibility

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This research conceptualizes and develops a scale to measure consumer's socially responsible behavior. In contrast to previous measurement efforts, this scale is weighted more to behavior (as opposed to more utopian attitudes), and assesses both front-end (acquisition) as well as back-end (dispositional) consumption practices. Five related dimensions of consumer social responsibility emerged from this multi-stage scaling effort. A series of studies provided the evidence that the CnSR measure possesses satisfactory reliability and validity. Additionally, confirmatory factor analysis supported the final factor model. Finally, implementations and limitation of the measure are suggested.

Cultural Differences in Consumers' Pursuit of Intrinsic versus Extrinsic Goals

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Zhenfeng Ma, University of Ontario Institute of Technology, Canada

This research investigates the cultural differences in how consumers pursue intrinsic versus extrinsic goals. We predict that consumers from Western (vs. Eastern) cultures value extrinsic (vs. intrinsic) goals more and therefore prefer products that are framed to achieve extrinsic (vs. intrinsic) goals more. Further, based on the regulatory focus theory, we expect that consumers from Western (vs. Eastern) cultures are more likely to approach extrinsic (vs. intrinsic) goals and avoid the failure of intrinsic (vs. extrinsic) goals. As such, consumers from these two cultures prefer products framed with different goal content (intrinsic vs. intrinsic) and goal orientation (promotion-focus vs. prevention-focus).

Who Shops at Wal-Mart? The Personality and Perceptions of the Low Price Consumer

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Molly B. Pepper, Gonzaga University

Wal-Mart is the world's largest company and the undisputed leader in offering consumers low retail prices. However, the company has repeatedly come under fire for both its business practices and the externalities created by its business model. This study examines consumers' perceptions of and attitudes toward Wal-Mart, as well as self-reported Wal-Mart shopping and boycotting behavior. In addition, the relationship between these responses and several individual difference variables, namely materialism, entitlement, and consideration of future consequences, is explored.

Consumer Decisions on Luxury Products: Effects of Social Observations of Consumptions

Jongwon Park, Korea University, Korea*

Sie Yeon Song, Korea University, Korea

Ashok Lalwani, University of Texas, San Antonio

Consumer decisions on luxury products are influenced by a variety of personal and situational factors. The present research examined the effect of observing others owning and consuming a luxury product on consumers' own purchase intentions for the product, and the processes that underlie the effect. Our findings show that in general, observations of other consumers' consumption increase our own purchase intentions, and this "observation effect" is robust regardless of gender and levels of self monitoring. Our findings also suggest that factors influencing purchase intentions systematically vary, depending on whether the decisions are made while observing others' consumptions or without such observations. Moreover, gender and self monitoring tend to influence these determinants as well.

Evolve and Die: When Not to Change Is Better Than to Change - Consumers' Role in Mergers and Acquisitions

Eleni Zoi Papavasileiou, Boston University*

The classical finance-based view of Mergers and Acquisitions (M&As) pays attention to financial factors. But, "Who's thinking about customers and critically-the brands? At the moment no one (Basu, 2002)." This paper investigates consumers' reactions to M&As and suggests two key factors: degree to which consumers believe that the two corporate images fit together, and naming strategy chosen for the post acquisition phase. The less (more) consumers believe that the two corporate images fit together, the less they like the acquisition. Specifically, the better the fit between the two corporate images, the more consumers prefer the companies to operate under a combined (separate) name. Following the "losses loom larger than gains" rule, consumers are more likely to support the separate naming strategy in the low fit case than the combined naming strategy in the high fit case. Managers should first understand consumers' perceptions of the

“fit” between the two corporate images and then choose which company to acquire as well as under which name to operate.

Boundary Conditions on the Effect of Unconscious Thought for Complex Decisions

Hae Joo Kim, University of Toronto, Canada*

Andrew Mitchell, University of Toronto, Canada

We replicate findings by Dijksterhuis and colleagues (2006) that indicate unconscious thought relative to conscious thought is more advantageous for complex decisions. We also find a significant interaction between expertise and whether information is acquired by evaluative or non-evaluative processes; experts in the non-evaluative task condition and novices in the evaluative task condition made relatively better decisions, especially following unconscious thought. Finally, we examine whether recalled attribute information predicted attitudes toward the alternatives in the different conditions with mixed results.

The Consequences of the Horizontal-Vertical Cultural Distinction for Consumer Responses to Advertising Messages

Atul Kulkarni, University of Illinois, Urbana-Champaign*

Sharon Shavitt, University of Illinois, Urbana-Champaign

We examine consequences of the horizontal-vertical distinction in cultural orientations for consumer responses to advertising messages. Results from our first study suggest vertically-oriented (versus horizontally-oriented) individuals evaluate ad message more favorably when the message conveys the product’s ability to help users gain attention. However, these effects reverse when the ad depicts consumers in a public context. In an ongoing second study, we test individuals’ impression management concerns as a mechanism driving these effects.

The Defensive Trust Effect: Secondary Control and Basic Beliefs in Consumer Trust Judgments

Andrew Wilson, York University, Canada*

Peter Darke, York University, Canada

Consumers cope with many threatening consumption situations, including: concerns about receiving poor service, difficult decisions, and misleading persuasion attempts. Existing evidence suggests that consumers often react to such threats by displaying greater distrust towards marketers (e.g., Darke & Ritchie, 2007). In contrast, the current research shows threat can have paradoxical effects on trust. Specifically, consumers with high belief-in-a-just-world coped with consumption stress by increasing their trust in the relevant marketing agent, relative to those who did not maintain such beliefs. These findings support predictions based on CEST (Epstein & Pacini, 1999) and control theory (Rothbaum et al., 1982).

The Subtle Evocation of Self-Related Mental Imagery through Verbal Marketing Communications

Nilufer Z. Aydinoglu, Koc University, Turkey*

Aradhna Krishna, University of Michigan

We propose and demonstrate that verbal marketing communications can vary in their ability to subtly generate self-related mental imagery and consequently improve consumer attitudes toward the communication and the target product. Thus, a “get matching shirt free” offer is more imagery-evocative compared to a “get second item free” offer. Two experiments illustrate the potential of various verbal stimuli to evoke increased self-related mental imagery and its mediating role in

the effect of the stimuli on communication effectiveness. We also show the moderating influence of individual self-esteem on the mediating effect of mental imagery.

The Influence of Tactile Input and Distance on Context Effects

Joan Meyers-Levy, University of Minnesota

Rui (Juliet) Zhu, University of British Columbia, Canada

Lan Jiang, University of British Columbia, Canada*

The flooring consumers stand on when shopping can elicit bodily sensations, with comfort instilled by carpeting and fatigue evoked by tile flooring. Like moods, these bodily sensations could foster context effects on observed products. Yet, whereas moods prompt only assimilation effects, we sought conditions where consumers' bodily sensations would produce either assimilation, contrast, or no context effects. We show that consumers' viewing distance from a product can determine the direction of such effects. Further, these effects are (a) prompted by bodily sensations, not conceptual knowledge, (b) rather limited in scope, and (c) reversible in their direction under certain circumstances.

At What Stage of Process Does Depletion Hurt the Most?

Darlene Walsh, Concordia University, Canada*

Antonia Mantonakis, Brock University, Canada

We present two experiments that isolate the point at which depletion negatively influences performance on a self-regulation task. In experiment 1, we found that depleted participants showed greater performance decrements than non-depleted participants to initiate their responses on a self-regulation task. However, once a response was initiated, depleted participants and non-depleted participants performed equally. In experiment 2, we replicated the results of experiment 1 and found that as experience in this self-regulation task grows, the effect of depletion on response initiation was reduced. Future research and implications for consumer psychology are also discussed.

Emotional Appeals and Rhetorical Devices in Print Advertising

Pia Albinsson, New Mexico State University*

The Emotional Appraisal and Reactions Model (EARM) is proposed and thereafter empirically tested. Results generally support the hypotheses that depth of processing, memory and persuasion are increased when rhetorical works are combined with emotional appeals in print advertising. The EARM has therefore the potential to extend earlier appraisal/coping models.

Tolerance of Negativity (TON): Development of a New Measure and Validation in Two Advertising Contexts

Kivilcim Dogerlioglu-Demir, Washington State University, Pullman*

Kristine Ehrich, Washington State University, Pullman

Darrel Muehling, Washington State University, Pullman

Jeff Joireman, Washington State University, Pullman

The use of negatively framed messages is on the rise in political and consumer domains. Drawing from psychology, philosophy and sociology literatures on tolerance and consumer research on negativity, we suggest that while some individuals may be more tolerant of "negative" marketing activities, some people are easily annoyed by them. We are mainly interested in documenting these differences as they may influence consumers' responses to ads, brands and

purchase decisions. In this paper, we develop a new measure (Tolerance of Negativity-TON) that captures this variable and demonstrate this “TON effect” for people’s evaluations of negatively framed ad messages.

Conflict, Compromise and Consensus: A Deeper Look at Consumer Roles, Patterns and Preferences in Culturally Diverse Families

Samantha N. N. Cross, University of California, Irvine

This research comprises three essays which examine the impact of cultural heterogeneity on the food consumption practices and choices of culturally diverse households. The first essay is theoretical and provides the conceptual framework for the other two empirical studies which investigate everyday and ritualized food consumption patterns. Essay 2 focuses on the various ways in which blending processes are manifested in the lives of culturally diverse families within the context of Thanksgiving celebrations, exploring implications for creolization, innovation and institutional change. The third essay builds on the second, studying everyday food consumption activities in bi-national households by examining the purchases of consumers through observations and discussions of their kitchen pantries. These studies make a theoretical contribution to the knowledge base on household decision making, consumer choice, creolization, and innovation, as well as add to our overall understanding of the integration of immigrant populations in the marketplace and overall U.S. society.

Motivated Consumer Innovativeness: Concept, Measurement, and Validation

Bert Vandecasteele, Lessius College and Ghent University, Belgium*

Maggie Geuens, Ghent University and Vlerick Leuven Gent Management School, Belgium

Existing consumer innovativeness scales ignore the multitude of motivation sources of buying innovations. The objective of this paper is to incorporate motivation research into a multi-dimensional innovativeness scale to better account for the consumer-product relation. A range of eight empirical studies (involving about 3,000 respondents in total) indicate that four types of motivations underlie consumer innovativeness: functional, hedonic, social and cognitive motivations. The proposed 20-item MMCI scale proves to be reliable and valid, and enables more accurate measurements than existing innovativeness scales.

The Effect of Ethical Attributes on Brand Personality and Consumer-Brand Relationships

Emilie Jean-Ruel, Ad Hoc Research, Canada*

Bianca Grohmann, Concordia University, Canada

In this research, it is hypothesized that: (1) ethical attributes can increase the sincerity and competence dimensions of brand personality (Aaker, 1997); and (2) these personality dimensions can in turn favor the formation of strong and meaningful consumer-brand relationships (Fournier, 1998). Results of an experiment show that although both the sincerity and competence dimensions of brand personality can be increased by ethical attributes, only the competence dimension plays a significant role in shaping strong consumer-brand relationships. The results also suggest that the relationship between the competence dimension of brand personality and consumer-brand relationship strength is mediated by socio-emotional rewards.

Are Neurotics Really More Creative? Neuroticism's Interaction with Mortality Salience on Creative Interest

Huimin Xu, SUNY, Oneonta*

Merrie Brucks, University of Arizona

Research on creativity has linked a higher level of neuroticism with greater creative achievement. However, existential psychology sees the neurotic as unable to channel anxiety through creativity. We examine how neuroticism affects individuals' creative response to cope with existential threat. Drawing from terror management theory and creativity research, we conceptualize creative endeavors as a particular means to enhance self-esteem and to ameliorate existential anxiety. Two experiments found an interaction between neuroticism and mortality salience on creative interest. Mortality salience boosts creative interest only among the less neurotic individuals, whether or not creative tasks were juxtaposed with non-creative tasks.

Purchase by Attributes: The Interaction Effect of Too-Much-Information and Consumers Motivation on Purchase Behavior

Adi Amit, Hebrew University, Israel*

Lilach Sagiv, Hebrew University, Israel

Consumers experience unpleasant feelings of overload in choosing from many (rather than few) products (Iyengar & Lepper, 2000; Schwartz, 2004). We suggest that the amount of information provided on each alternative – that is, the number of attributes – has similar detrimental overload effects (Study 1). We further suggest that the susceptibility to the attributes overload effect is moderated by epistemic motivations: Manipulating the epistemic motivation of Conservation (vs. Openness to change) enhances feelings of overload (Study 2) and influences the tendency to buy a digital camera in a purchasing simulation (Study 3).

Authentic Functioning and Authentic Objects: An Empirical Approach to the Role of Authenticity in 'Green' Consumer Behavior

Douglas Ewing, University of Cincinnati*

Chris Allen, University of Cincinnati

Randall Ewing, Ohio Northern University

Existing consumer research on “authenticity” offers relatively little theorizing regarding underlying and antecedent/consequent processes. The present research asserts a relationship between personal authenticity and consumption object authenticity. Drawing from research based on the Self-Determination Theory (Kernis and Goldman 2006) and semiotics (Grayson and Martinec 2004), it examines this relationship in the context of “green”, or environmentally conscious, consumption using a controlled experiment. Results indicate that a consumer functioning in a manner consistent with his/her true- or core-self may assess the authenticity of a branded product in a more critical manner.

Implicit and Explicit Brand Attitude Formation in Evaluative Conditioning: Insights from the Associative-Propositional Evaluation Model

Douglas Ewing, University of Cincinnati*

Chris Allen, University of Cincinnati

Bryan Gibson, Central Michigan University

Frank Kardes, University of Cincinnati

The Associative-Propositional Evaluation (APE) model offers testable and relevant predictions about implicit/explicit attitude formation when Evaluative Conditioning (EC) is employed as a research tool. The present research examines two

predicted patterns of implicit/explicit attitude formation in an EC procedure aided by a manipulation of contingency awareness. Results suggest some support for predictions given by the APE, including a more robust effect of conditioning on implicit rather than explicit attitudes with higher levels of contingency awareness. However, further research is needed to clarify several inconsistent findings with respect to contingency awareness and underlying processes behind implicit and explicit attitudes.

Fusing Products and Brands: When does Partnering Pay off?

Lisanne Bouten, Delft University of Technology, The Netherlands*

Maria Saaksjarvi, Delft University of Technology, The Netherlands*

This study's goal was to examine consumer reactions towards branded hybrid products. We examined how consumers interpret and evaluate hybrids with a single vs. multiple brands. The results showed that consumers will interpret a product symmetrically (i.e., give equal status to both categories) when two brands are used. However, if one brand within the co-branded hybrid is dominant, the interpretation will mimic that of a single-branded hybrid. We also found that a co-branded hybrid is preferred over a single-branded hybrid, especially when the product is interpreted symmetrically. Finally, we confirmed that a hybrid with emergent attributes is evaluated more positively.

A Behavioral Account of Compensation Awarding Decisions and their Impact on Consumer Welfare

Claire Tsai, University of Toronto, Canada*

Christopher Hsee, University of Chicago

Suppose an individual loses an irreplaceable object and someone else is at fault. How much should he be compensated? Normatively, compensation should equal the value (utility) to the victim. Our experiments demonstrate that compensation decisions often ignore value and are instead based on cost (how much the victim originally paid for the item), except when cost is zero. For example, we found that people awarded \$200 for a destroyed item worth \$500 to the victim if the cost was \$200; however, they awarded \$500 if the original cost was zero. We explain these phenomena in terms of lay scientism (the tendency to base decisions on objective factors) and discuss how the prevalent cost-based compensation rule hurts consumer welfare.

Coping with Guilt and Shame in the Impulse Buying Context

Sunghwan Yi, University of Guelph, Canada*

Hans Baumgartner, Pennsylvania State University

In this study, we studied how consumers cope with negative emotions in the impulse buying context. As with other instances of self-regulation failure, impulse buying is likely to elicit aversive self-conscious emotions, specifically, guilt and shame, which evoke a set of coping strategies. Based on recent psychological research on guilt and shame, we hypothesized that guilt is followed by greater problem-focused coping strategies and less emotion-focused coping strategies. In contrast, the opposite relation was hypothesized for shame. These hypotheses were generally supported by a retrospective survey. We also reported the development of a self-report instrument designed to assess how consumers cope with negative feelings in the impulse buying context.

Understanding Optimism: The Antecedents of Unrealistic Purchase

Elaine Chan, Hong Kong University of Science & Technology *

Anirban Mukhopadhyay, University of Michigan, US

Jaideep Sengupta, Hong Kong University of Science and Technology, Hong Kong

Consumers may often purchase products that they may not be able to actually use. In this research, we look at the antecedents of one form of over-optimistic purchasing – buying clothes that are too small. Drawing on optimism, mental simulation and goal literatures, results from four experiments show that optimists do not invariably engage in over-optimistic behavior. Rather, optimism only enhances the likelihood of this behavior, depending on the specific kind of processing (e.g. imagery vs. analytical processing; outcome- vs. process-focus) and the availability of cognitive resources. Support is also obtained for the mediating role of motivation.

Preparing and Repairing: Using Mixed Counterfactual Thoughts

Christina Anthony, University of Sydney, Australia*

Elizabeth Cowley, University of Sydney, Australia

In this research, we show how mixed counterfactual thoughts are strategically used to repair mood after a loss and prepare for the future after a win. Spontaneous counterfactuals, such as upward counterfactuals following a loss and downward counterfactuals following a win, do not satisfy these goals. However, a second strategically generated counterfactual allows winners to focus on how the future could be even better and losers to think about other outcomes that could have been worse. We find that infrequent gamblers only have spontaneous counterfactuals, whereas frequent gamblers generate mixed counterfactuals which may motivate a desire to play on.

All Ingratiation is Not Equal: A Two-Dimensional Model of Consumer Ingratiation in a Sales Context

Thomas Cline, Saint Vincent College*

Daniel Mertens, Saint Vincent College

Nicole Vowels, University of Colorado, Denver

Antony Davies, Duquesne University

This program of experimentation provides empirical support for a two-dimensional model of customer ingratiation and demonstrates differential affective and conative responses to a salesperson's ingratiation attempts. Specifically, consumers' perceptions of the sincerity and accuracy of a salesperson's remark influence their attitudes toward and intentions to engage the salesperson. In addition, customer perceptions of accuracy and sincerity interact such that the deleterious influence of insincere ingratiation on consumers' intentions to work with a salesperson attenuates when the remark is accurate (vs. inaccurate).

Communicating Technical Terms in Advertisements for Feeling Products

Ching-I Teng, Chang Gung University, Taiwan*

Yu-Jen Chou, Ming Chuan University, Taiwan

Shih-Ping Jeng, National Taiwan Ocean University, Taiwan

Chi-Hui Chien, Chang Gung University, Taiwan

Previous studies on communication of technical terms with consumers have rarely examined feeling products (products that deliver sensory or social benefits to consumers). This study thus examines the influence of consumer self-assessed knowledge and detailed explanations of technical terms on attitudes towards advertisements promoting feeling products.

This study used a 2 x 2 between-subject factorial design involving 149 participants. For consumers with low self-assessed knowledge, detailed explanation improves ad attitude. Moreover, for consumers with high self-assessed knowledge, detailed explanation did not influence ad attitude. The study findings provide insights assisting feeling product managers in effectively communicating technical terms with consumers.

The Effects of Social Motivation and Individual Differences in Media Preferences and Choice: Experiments Investigating Solitary Media Consumption

Bridget Satinover, University of Tennessee*

David Schumann, University of Tennessee*

This paper examines the degree to which social motivation indicators, i.e. relevant personality traits, influence actual selection of media vehicles when consuming media in solitude. Media literature to date has focused primarily on how media is used to meet social needs rather than on how the amount of social information may lead to specific media decisions. The personality traits of introversion/extroversion, need to belong, susceptibility to interpersonal influence, and self-monitoring are employed. Analysis of two experiments suggests that differences and strength of social contexts influence the extent to which social motivation personality indicators influence media preference and selection.

Self-Brand Overlap and Dissociation

Rebecca Trump, University of Arizona*

Merrie Brucks, University of Arizona

Brands play a significant role in consumers' lives, often even acting as relationship partners. How these consumer-brand bonds are represented in memory, however, is unknown. Research in social cognition has illustrated overlap in the cognitive representation of one's self and a relationship partner. Utilizing a response time methodology, the present research ties together these areas to uncover how brand relationships may be represented in memory, while also offering a new method for studying consumer-brand connections. We find that beloved brands become incorporated into consumers' mental representations of self (self-brand overlap), while disliked brands are dissociated from the self (self-brand dissociation).

Life Really is Nasty, Brutish, and Short – And No One Is Happy About It

Lalin Anik, Harvard University*

Michael I. Norton, Harvard University

Lara B. Aknin, University of British Columbia, Canada

Elizabeth W. Dunn, University of British Columbia, Canada

The present research explores the validity of Thomas Hobbes' (1651) depressing view that life is "nasty, brutish, and short." Given two choices – one between life as "short" or "long" and one between life as "easy" or "hard" – more than half of participants across several studies perceived life as both short and hard, and this view was associated with both decreased well-being, civic engagement, and fewer meaningful friendships. In five distinct studies, we examined how endorsements of life as being easy or hard, and long or short, are related to people's overall well-being and decision making processes as consumers.

When Word of Mouth Leads to Consumer Herding: An Experimental Study

Vincent Mak, Hong Kong University of Science and Technology

Rami Zwick, Hong Kong University of Science and Technology*

We introduce an economic model of word-of-mouth (WOM) communication among consumers in a social network, through which we show that herd behavior (cascades of identical purchase) arises under certain conditions. We proceed to study this new type of herding experimentally. Using a “chain” network of four subjects as our unit of observation, we create theoretically predicted cascades under all experimental conditions. Both occurrence of cascades and strategic sophistication increase as the game proceeds, while inefficient cascades appear consistently throughout the experiment.

Psychological Distance, Level of Construal, and Compromise Effect

Gian Luca Marzocchi, University of Bologna, Italy*

Alessandra Zammit, University of Bologna, Italy*

According to construal-level theory, consumers’ mental representations of events are influenced by their psychological distance. It is also well established that consumer preferences are strongly dependent on the choice context. The present research investigates the relation existing between psychological distance and tendency to choose compromise option in a choice context.

Acknowledging the role of extremeness aversion in determining the compromise effect, and drawing from the evidence that pros are weighted more heavily than cons in psychologically distant choices, we contend that compromise effect will be reduced as psychological distance increases. In two studies, we find support for our contention.

Contextual Cues and Socially Relevant Information: Are Consumers Sticking to Context When They Know What Others Choose?

Elisa Montaguti, University of Bologna, Italy*

Alessandra Zammit, University of Bologna, Italy*

This paper investigates the impact of socially relevant information on consumers’ propensity to compromise. In two experiments, we show that social needs moderate compromise effect in favor of the most popular alternative. When social needs and extremeness aversion do not go together, the former overshadow the latter although the middle alternative remains attractive when compared to a binary setting. This indicates that uncertain consumers are resilient to social cue, therefore, they still opt for a decision-facilitating heuristic. Finally, when the middle option is the most popular, compromise effect is reduced as a result of the preference accorded to that option.

The Effect of Optimism on Consumer Advertising Information Processing

Kai-Yu Wang, Brock University, Canada*

Xiaoqing Yang, University of Wisconsin, Milwaukee

Laura Peracchio, University of Wisconsin, Milwaukee

Little research has examined the influence of optimism on consumers’ information processing. This research reports two studies exploring the effects of optimism on brand attitudes in response to advertising. As anticipated, under low relevant ad message conditions, optimists generated higher brand attitudes than pessimists when the ad format is non-comparative (vs. comparative) whereas pessimists find comparative (vs. non-comparative advertising) more appealing. The opposite pattern of effects was observed when the ad message was highly relevant. We further explored the process that underlies these effects.

Experienced-Based Consumer Choice of Risky Products

Liat Hadar, University of California, Los Angeles*

I examine whether the manner in which consumers learn about the possible consequences of using a risky product and their likelihoods affects their choices. In two studies, consumers were given information on a product which is designed to provide better service but has a 1% chance of failure. In the experience condition participants were provided several experiences with the service. In the description condition, participants were explicitly told the chances of a failure. Positive experience with the risky product shifted preference in its favor, whether the description of the failure was available or not. Implications for marketers are discussed.

Mess, Mayhem and Over-Extended Selves: Disposition Strategies Used by Professional Organizers Who Work with Chronic Packrats and Compulsive Hoarders

Catherine Roster, University of New Mexico*

Nearly everything owned by chronic packrats and compulsive hoarders is associated with deep meanings or beliefs about objects' importance for self. However, the overwhelming inventory of "special" objects prevents packrats and hoarders from extracting the super-charged meanings they associate with these goods, creating a life situation where the accumulation of possessions threaten, rather than promote, the maintenance and development of self-identity. This paper describes emotionally-oriented disposition techniques used by professional organizers to help consumers let go of possessions in a manner that matches possession meanings with effective disposition strategies. Findings reveal aberrations in possession attachment and special possession meanings that suggest revisions to current disposition models that ignore consumer irrationality in disposition choices.

Developing a New Materialism Scale

Eda Gurel-Atay, University of Oregon*

Joseph Sirgy, Virginia Polytechnic Institute and State University

Vic Johar, California State University

Ibrahim Hegazy, American University in Cairo, Egypt

Ahmet Ekici, Bilkent University, Turkey

Dong-Jin Lee, Yonsei University, Korea

A new instrument was developed to measure three dimensions of materialism: happiness, success, and distinctiveness. Data from the US student and adult samples were used to purify the scale, assess the dimensionality of the measure, test convergent and discriminant validity, and test reliability. Data from other countries (i.e., Australia, Bosnia/Herzegovina, Egypt, Korea, and Turkey) were used to test for measurement invariance across countries. Nomological validity is tested by testing the hypotheses that materialism is negatively related to life satisfaction, positively related to social influence in buying, and positively related to exposure to materialistic advertising. The results of all these tests provide support for both the reliability and validity of our measure cross-culturally.

Flexing One's Status: How Pulling Rank Elevates Feelings of Prestige

Aarti Ivanic, University of Southern California*

Joseph Nunes, University of Southern California

Firms are increasingly endowing loyal customers with status. In this research, we conceptualize status as a role identity and demonstrate how making an individual's status identity salient triggers behaviors associated with one's perceived rank. We show that individuals incur a cost to act in accordance with status role-specific expectations. Second, making a high status identity salient leads individuals to pay more for a product than when a low status identity is made salient.

Finally, we show that consumers, who utilize their status, benefit by enhancing their feelings of prestige, which is distinct from the material or social benefits of status.

Overcoming the ‘Window Dressing’ Effect in CSR Messaging: The Impact of Construal Level on Credibility and Consumer Responses

Stephen Anderson-Macdonald, University of Minnesota*

Matthew Thomson, University of Western Ontario, Canada*

We propose that corporate messages representing concrete, low-level construals (versus abstract, high-level construals) better match skeptical consumers’ expectations for detailed, psychologically-close CSR information. Greater congruency between message representation and consumer expectations results in more favorable attitudes towards the company. Further, this construal level effect on attitudes is mediated by message concreteness and message credibility. We empirically demonstrate this two-stage mediation process across multiple operationalizations of construal level (Study 1). We provide further support for the critical mediating role of message credibility in our model by demonstrating the same two-stage process across varied levels of source credibility (Study 2).

The Long and the Short of Propensity to Plan the Use of Time and Money

John Lynch, Duke University

Richard Netemeyer, University of Virginia

Stephen Spiller, Duke University*

Alessandra Zammit, University of Bologna, Italy

We develop a set of four parallel scales measuring individual differences in propensity to plan one’s use of time and money in the short-run (1-2 days) and the long-run (1-2 months). We show that these scales exhibit discriminant validity from each other and from related constructs, that they relate as expected to different antecedents and consequences, and that they predict frequency of actual planning behavior. Finally, we show that people plan more for the use of their time in the short run than in the long run, and that this discrepancy for time is larger than it is for money.

Stimulating Referral Behavior May Backfire for Men: The Effect of Referral Failure on Susceptibility to Persuasion

Bart Claus, KU Leuven, Belgium*

Kelly Geyskens, Lessius College & KU Leuven, Belgium

Kobe Millet, KU Leuven, Belgium; Free University Amsterdam, The Netherlands

Siegfried Dewitte, KU Leuven, Belgium

The effects of word-of-mouth (WOM) on the receiver of the information conveyed have extensively been researched. It remains open, however, whether referral outcome has an effect on the sender. Two studies reveal that male consumers’ openness to advice is lower when their own advice was not followed, and differences in self-esteem drive this effect. We show that referral failure questions the referrer’s status, and sufficiently high self-esteem is needed to bare this cost of a negative referral outcome. This result suggests that stimulating WOM behavior may backfire when the receivers ignore the recommendation.

The Role of Temporal Construal in Omission Neglect

Hélène Deval, University of Cincinnati*
Bruce E. Pfeiffer, University of New Hampshire
Douglas R. Ewing, University of Cincinnati

Xiaoqi Han, University of Cincinnati
Frank R. Kardes, University of Cincinnati
Maria L. Cronley, Miami University, Ohio

Insensitivity to missing information has been shown to result in inappropriately extreme and confidently held judgments (Sanbonmatsu et al., 1991, 1992, 1997, 2003). Construal level theory suggests that as temporal distance decreases, people should be more sensitive to missing information (Trope and Liberman 2003). The present research examines the effects of temporal distance on sensitivity to omissions for a service (Experiment 1) and a product (Experiment 2). The findings suggest that sensitivity to missing information is greater in near-future situations than in distant future situations. As construals become more concrete, consumers become more sensitive to omissions, resulting in more conservative evaluations.

Wash Away Your Good/Bad luck: Implications for Beliefs of Winning

Alison Jing Xu, University of Illinois, Urbana-Champaign*
Rami Zwick, Hong Kong University of Science and Technology
Norbert Schwarz, University of Michigan

We found that hand washing, which had psychological implications of change, influenced gamblers' beliefs of winning. Specifically, when gamblers are temporarily lucky (i.e., win consecutive games), the interpolated behavior of hand washing reduces their perceived good luck and decreases their willingness to risk high stakes on subsequent bets. However, when gamblers are temporarily unlucky (i.e., loss consecutive games), the interpolated hand washing alleviates their perceived bad luck and increases their willingness to risk high stakes on subsequent bets.

The Moderating Role of Attainability: Improving Both Brand and Self-Perceptions for Those Exposed to Idealized Images

Kate Pounders, Louisiana State University*
Judith Anne Garreston Folse, Louisiana State University

Scholarly research and the marketplace have witnessed mixed response to advertisements which are targeted to women and feature a variety of model types. Consumer attitudes toward the self and toward the advertisement are inversely related. While advertisements that portray traditionally thin models produce favorable ad evaluations they also produce negative self-perceptions. In an experiment, the authors examine whether perceived goal attainability may prevent contrast effects from occurring for those exposed to a thinner model. Findings indicate that model size influenced both advertising and self-perception outcomes. Comparative judgment mediated these effects. Most interesting are the results for goal attainability. Those with low attainability had lower self-perceptions when exposed to a thinner vs. heavier model; no such differences were found for the high attainability condition.

What's So Special about Art? The Role of Authenticity in Judgments of Value

George Newman, Yale University*
Paul Bloom, Yale University

We report the results of three experiments exploring the conditions under which people place a special value on authentic originals over inauthentic duplicates. Specifically, we examine the domain of artwork, which provides perhaps the strongest example of the importance of authenticity – an original artwork can be worth millions of dollars while a perfect

copy of that original is usually worth far less, and may have value only as a curiosity. Across three experiments, we find that lay participants (college students and older adults alike) have reliable intuitions, including the general sentiment that authenticity is particularly important for art, as well as more specific beliefs about the role of the manufacturer, their intentions, and the existence of potential “competitors” to the original. Comparisons to other product domains as well as the implications that these lay theories have for consumer behavior are discussed.

First Impressions: Status Signaling Using Brand Prominence

Young Jee Han, University of Southern California*

Joseph Nunes, University of Southern California

Xavier Dreze, University of Pennsylvania

Consumers use products to signal status in different ways. We propose a classification system employing four tiers to explain consumers’ choice among subtly or conspicuously branded items based on how and to whom they wish to signal. Data from two luxury brands substantiate a negative relationship between conspicuousness of the brand on the product (what we call “Brand Prominence”) and price, implying luxury goods displaying brand names prominently target a more price-sensitive segment. In addition, data from counterfeiters, a lab experiment, and a field study support the proposed model of status signaling behavior based on expertise, need-for-status, and brand prominence.

The Effect of Superfluous Ratings on Preference

Steven Huff, Brigham Young University*

Teck Ho, University of California, Berkeley

When a product rating is presented simultaneously with the quality information upon which it is based, and it does not influence perceived quality, it is superfluous. We experimentally demonstrate that the mere presence of superfluous ratings in a menu can influence preference as measured by willingness to pay (WTP). Ratings prompt individuals to mentally divide menu alternatives into discrete, ratings-based categories that prompt an exaggeration of differences between across-category alternatives. Such categorization can cause an expansion in the WTP range associated with the menu. Thus, the mere presence of product ratings can influence WTP without influencing perceived quality.

Impulse and Constraint: The Role of Anxiety in Impulsive Buying Decisions

Rama Ganesan, University of Arizona*

Shankar Ganesan, University of Arizona

Consumer psychology has recognized the role of cognitive and executive control over buying impulses, but has not yet addressed the automatic constraint exerted by anxiety. Using a multi-method approach, in three studies we demonstrate that anxiety constrains impulsive buying tendency and impulsive buying decision. In the course of this demonstration, we distinguish between alternative conceptions of impulsive buying. Second, we propose and show the functional role of anxiety in inducing a planned approach to buying. Finally, we differentiate between two related emotions, anxiety and sadness, and their effects on the impulsive buying decision.

Is Corporate Blogging A Good Way to Spread Word-of-Mouth? The Role of the Information Source and Comments of Others on Consumers' Attitudes and Word-of-Mouth Intentions

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The expansion of the blogosphere is not reflected in the number of ``corporate blogs``. This paper tests seven hypotheses concerning the indirect impact of corporate blogging on purchase and word-of-mouth intentions using ANOVA and Structural Equation Modeling (SEM). Findings show that companies considering using a blog to communicate benefits of their products should be aware that their communications could be perceived as favorable as those provided by an independent blogger if they have a good reputation, and it can lead to positive impact on purchase intentions and WOM intentions. Theoretical and managerial implications are provided.

How Does Shopping with Friends Affect Consumers' Spending?

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We extend the scope of current research about social influence on consumer behavior via two field studies and an experiment that examine the influence of friends' presence during a shopping trip on consumers' spending. We argue that males and females exhibit differential sensitivity to friends' influence due to the difference in their agentic and communal orientations. Our results show that males, but not females, spend significantly more when they shop with a friend than when they shop alone (Studies 1 and 3). We also show that males are more likely to choose a more expensive brand than females when their choices are observed by their peers (Study 2). Further, we argue that self-monitoring moderates the interaction between a friend's presence and the consumer's agentic/communal orientation. In Study 3, we find that high-monitors (versus low-monitors) with a higher communion versus agency orientation spend less when they shop with a friend than when they shop alone. In contrast, both high- and low-monitors with a higher agentic orientation spend more when they shop with a friend than when they shop alone. Implications for research and practice are discussed.

We want Popular Brands, but I Don't Care: Understanding how Our versus My Brand Attitudes Interplay with Brand Popularity

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Catherine Cole, University of Iowa

In four studies, we argue that due to different structures of self-construal goals associated with popularity cues, self-construal moderates the influence of popularity cues on brand attitudes. Specifically, we demonstrate that when participants engage in maximizing versus minimizing inclusion of others in their view of themselves, they are more likely to favorably evaluate a brand presented with high popularity cues in advertising (study 1). We then find that when situational self-construal is consistent with chronic self-construal, the joint effects of popularity cues and self-construal on brand attitudes are more pronounced (studies 2-3). In study 4, by focusing on cultural comparison, we find that participants who are chronically more accessible to interdependent self-construal are more likely to be sensitive toward a brand presented with high versus low popularity cues than the participants who are chronically more accessible to independent self-construal.

Consumer Entitlement: When Predictive Expectations Match Ideal Expectations

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This research examines consumer entitlement (CE), the degree to which an individual believes they deserve more and/or feels entitled to more than others in the marketplace. After defining CE and reviewing related constructs, a scale to measure CE is developed and tested in relationship with measures of should and ideal expectations. Specifically, (1) the degree to which individuals consider themselves entitled to marketplace outcomes, (2) the impact this perspective has on expectations, and (3) the extent to which exaggerated expectations yield disconfirmation are considered. This research has substantive implications for the formation and role of customer expectations based upon a secondary dispositional characteristic not thoroughly examined in consumer psychology.

Modes of Information Processing and Brand Extension Evaluations

Huifang Mao, University of Central Florida*

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This research finds that, compared to analytical processing, imagery processing will generate a polarizing effect in brand extension evaluations. In circumstances where consumers tend to believe that the extension is likely to succeed (i.e., favorable brand name, good fit), imagery (vs. analytical) processing, by visualizing a concrete positive scenario of the product, will further enhance the extension evaluations. In situations where consumers tend to have a negative outlook for the brand extension (i.e., unfavorable brand name or poor fit), imagery (vs. analytical) processing, through creating a negative visualization, will further jeopardize the evaluations. General support was received from two experiments.

The Effects of Self-Discrepancy and Membership Esteem on Charitable Donors' Tendencies to Indulge in Thank-You Gifts: Field Experiments in Gifts and Giving

Jen Shang, Indiana University*

Leonard Lee, Columbia University

This research is the first to examine the joint effects of contextualized self-discrepancy and collective self-esteem on donors' tendencies to indulge in hedonic gifts (as opposed to utilitarian gifts) after a donation. Two experiments—one involving university students in Asia, and the other public radio donors in the US— demonstrate that priming the failure to achieve participants' ideals in supporting a nonprofit prevents them from indulging in hedonic gifts (i.e. gift certificate to a restaurant) as compared to a utilitarian gift (i.e. gift certificate to a grocery store). This effect, however, only exists in donors who experience high membership esteem.

To Improve or to Defend? Impact of Self-Image Goals in Consumers' Evaluation of Self-Improvement Products

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Self Improvement Product (SIP) industry involves cosmetics companies, pharmaceuticals, plastic surgeons, personal care products, magazines, and books, all of which promote hope or promise improvement in various domains of a person's life: look, body, relationship, career and self-esteem. This research examines whether activating self-deficiency is an effective way to promote SIP and what the role of self-defending goal vs. self-improvement goal is in affecting evaluations of SIP. Findings of three experiment studies are reported.

Confidence in Ordinal Judgments: Consumer Metacognition and Bayesian Updating

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Donald Lehmann, Columbia University

Using a consumer metacognition theoretical framework, we find support for our hypotheses that consumers' confidence in ordinal judgments are updated in a manner that is consistent with Bayes' theorem for difficult-to-compute numerical data with judgment updating being conservative than Bayesian predictions in the case of relatively easy-to-compute numerical data. These differential effects arise because consumers use a hypothesis-testing algorithm to process difficult-to-compute numerical data, while in the case of easy-to-compute numerical data, an averaging algorithm is employed. Moreover, these effects are moderated by data distinctiveness.

Choosing Vices: Effects of Regulatory Resource Depletion and Decision Types

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Jongwon Park, Korea University, Korea

We hypothesize and demonstrate that self regulatory resources (depleted vs. available) and types of tasks (single choice vs. budget allocation) interactively influence consumer decisions between vice and virtue alternatives. Participants in two studies first performed either a resource-depleting task or a control task, and then made a decision between a vice ("chocolate bar") and a virtue ("apple"). Resource-depletion participants, compared to control participants, were more likely to choose the vice when their task was to simply choose one (study 1) or to freely allocate as much or little money to the purchase of each product as they wished, within the budget constraint (study 2). However, the effect did not occur when participants were constrained to spend the entire budget (studies 1 and 2). Theoretical implications of findings are discussed.

Hearing, Remembering, and Branding: Guidelines for Creating Sonic Logos

Vijaykumar Krishnan Palghat, University of Cincinnati

Sound, in its many forms, plays a central role in branding. Yet, despite its pervasive use in practice, sonic branding has not been studied to the same extent as visual branding. Interestingly, consumers are becoming sonically more perceptive and accessible at auditory interfaces because of the explosive proliferation of electronic gadgets in their lives. This research addresses both this opportunity and neglect by seeking to ascertain empirically the influence of design characteristics of sonic stimuli on evaluative consumer judgments particularly focusing on sonic logos.

The Interplay between Form, Function, and Consumer Expertise

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Kyle B. Murray, University of Alberta

This paper argues that the form and function of a new product, relative to the status quo product, have systematically different effects on the preferences of experts and novices. In particular, we propose that novices are less likely than experts to choose the new product when a new product has improved function but an unconventional form. The results of our study provide supportive evidence that expertise moderates the effects of form and function on consumers' choice behavior.

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