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Kindling the Motivation System: Impact of Incident Hedonic Cues on Subsequent Goal Pursuit

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In this research, we propose that a brief experience with a hedonic cue (e.g. an appetitive drink) activates a general motivation drive, which, in turn enhances pursuit of a subsequently adopted goal (e.g., performance on intellectual goal, dieting goal etc.). Moreover, we show that given a sequence of goals, the activated motivational drive enhances pursuit for the more salient goal, that is, the goal temporally proximal to the source of motivational energy. Finally, we demonstrate that the impact of experiencing the hedonic cue on subsequent goal pursuit is attenuated if the activated motivational drive is satiated prior to the subsequent goal task.

[to cite]:

Monica Wadhwa and Baba Shiv (2009) , "Kindling the Motivation System: Impact of Incident Hedonic Cues on Subsequent Goal Pursuit", in NA - Advances in Consumer Research Volume 36, eds. Ann L. McGill and Sharon Shavitt, Duluth, MN : Association for Consumer Research, Pages: 146-149.

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SYMPOSIUM SUMMARY

Unraveling Motivation: Affective and Cognitive Processes Underlying Consumer Goals and Choices

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SESSION OVERVIEW

"I have come to the conclusion that my subjective account of my motivation is largely mythical on almost all occasions. I don't know why I do things." -Anonymous

Introduction. Dating back to the ancient Greeks, scholars have attempted to elucidate the motivational factors underlying human behavior. Aristotle, who proposed one of the earliest theories of motivation, suggested human behavior to be motivated by a desire to achieve an imagined or a real appetitive outcome, and avoid an aversive outcome. Similarly, Freud suggested that individuals work toward seeking pleasurable experiences and avoiding pain. The importance of understanding what motivates goals and choices has been recognized by the consumer researchers as well. Behavioral researchers have examined motivation through a variety of lenses including hedonic versus utilitarian motives (Shiv and Fedorikhin 1999; Dhar and Wertenbroch 2000; Kivetz and Simonson 2002), motivation as a drive (Hull 1951), and the goal-systems theory (Kruglanski et al. 2002). The three papers in this session integrate some of these perspectives in presenting a dynamic view of goals and motivation.

Session Objectives and Overview. The broad purpose of this session is to present work that adds significantly to the growing body of research on motivational factors that drives consumption goals and choices. The more specific objectives of this session are to 1) to explore how affective and cognitive processes underlying an activated goal drive consumption momentum, and 2) to examine the role of exogenous irrelevant sources of motivation in energizing goal striving behaviors. To meet these objectives, three papers are included in this session, all of which are in advanced stages of completion. Keeping in mind the overall theme of ACR 2008 ("Port of Call"), and the diverse audience that ACR conference attracts, the papers in this session explore the factors that impact the motivation underlying consumer behavior from different, yet related perspectives. While the first paper examines how goal related attentional biases can energize momentum toward goal satiating stimuli, the second paper extends the focus of the first paper by exploring another factor—goal-compatibility—in energizing goal related actions. Finally the third paper complements the first two papers by exploring the role of exogenous motivational sources that are irrelevant to any specific goal in energizing subsequent goal striving behaviors.

The session will begin with a focus on goal-driven attentional biases among impulsives and non-impulsives that drive indulgent behavior. Suresh Ramanathan will present his work that focuses on how two types of attentional biases, an initial visual attention bias toward temptations and a bias related to inability to avert attention from such temptations motivate indulgent behaviors. His results demonstrate that while impulsive people exhibit both forms of goal-driven biases towards tempting stimuli, it is their inability to avert attention from such temptations that drives the extent to which they show approach reactions toward such consumption stimuli and subsequently indulge themselves.

Amar Cheema will then present his work with Nidhi Agrawal that builds on the first paper by examining the role of goal-compatibility in energizing momentum toward goal relevant con-

sumption stimuli. Specifically, their results show that compatibility between goals (hedonic versus utilitarian), frames (loss versus gains) and construal levels (low versus high) motivates action aimed at acquiring the goal-compatible consumption stimuli. They find the goal-compatibility motivated consumption action toward such consumption stimuli is independent of attitudes related to such consumption stimuli that when people are energized to achieve a goal (acquire the stimulus) on the basis of compatibility, attitudes towards the stimulus do not have a significant influence on action.

Finally, Monica Wadhwa will present her work with Baba Shiv, which complements the first two papers by examining the impact of brief experiences with hedonic cue (e.g., an appetitive taste) on subsequent goal pursuit. Wadhwa and Shiv demonstrate that a brief experience with a hedonic cue can activate a general motivation drive, which, in turn, enhances pursuit for a subsequently adopted goal (e.g., performance on an intellectual goal, dieting goal etc.). Moreover, they show that given a sequence of goals, the activated motivational drive enhances the pursuit for the more salient goal, that is, the goal temporally closest to experience with the hedonic cue. Finally, their findings demonstrate that the impact of experiencing a hedonic cue on subsequent goal pursuit is attenuated if the activated motivational state is satiated prior to the goal adoption.

In an effort to increase audience participation and provide insights about the three papers, the session will have the services of Baba Shiv as a discussant. Shiv has expertise in the area of the role of emotion in decision making, the neurological bases of emotion, and nonconscious motivational processes in decision making. As a discussant, he will contribute insights about the three papers and the general session theme from not only the field of consumer behavior, but also neuroscience, which is of great interest and appeal to many consumer behavior researchers. Each presenter will limit their talk to 15-20 minutes, to allow ample time for him to speak and to engage the audience into a discussion of the research ideas.

We believe that the features of this proposal suit the evaluation criteria for ACR 2008 symposium proposals. Notably, the session includes papers that are likely to have a broad appeal, yet maintain a coherent theme. We feel that this session brings together three papers that use innovative tools to provide cutting edge counterintuitive insights into the motivational processes that drive consumer behavior and decision making. In addition to attracting researchers interested in the domains of goals and motivation, we expect further interest from those who work within the application areas represented.

EXTENDED ABSTRACTS

"Why One Can't Stop Looking at that Temptation: Dynamics of Attentional Biases in Self-Control Dilemmas"

Suresh Ramanathan, University of Chicago, USA

Why do people over-indulge? What motivates 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 suggests 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 proposes 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, I provide additional support for an incentive-salience argument, showing that impulsive behavior and overindulgence are motivated by two different forms of attentional biases toward temptations—an initial visual attention bias toward temptations and bias related to an inability to avert attention from temptations. These biases emerge 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 a hedonic goal. All participants then engaged in a visual probe task (Bradley et al. 2002), in which participants were required to respond as quickly as possible to a small dot probe which was presented immediately after the display of a pair of pictures. The pictorial stimuli used in the visual probe task 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. Pictures 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. The pair of pictures was followed by the dot probe that appeared in the position of one of the two preceding pictures and remained on the screen till the respondent's response. 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. Attentional bias scores were computed for each participant by subtracting mean RTs to probes replacing the 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 an initial visual attention bias 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 show that impulsive people showed a strong initial visual attention bias 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. Interestingly, this bias did not affect the number of cookies picked up. Rather, it was the bias

related to an inability to avert attention at a more conscious level from the temptation that influenced the number of cookies taken, more so when impulsive people 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 joystick indicating whether they felt like picking up a tempting chocolate snack on a tray in front of them right at the moment or felt like pushing it away (Ramanathan and Menon 2006). Results once again indicate 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 more intense approach reactions towards the snack.

Together, these results provide evidence suggesting that motivational influences leading to 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. Stated differently, these results, therefore, suggest that the motivation to indulge is likely to be based on pure incentive salience of the temptations (Berridge and Robinson 1998) rather than initial affective reactions.

“Compatibility-Driven Momentum in Redemption of Sales Promotions”

Amar Cheema, Washington University in St. Louis, USA

Nidhi Agrawal, Northwestern University, USA

In this paper, we bring together the literatures on choice between hedonic versus utilitarian options, gain and loss frames, and construal level to identify the influence of these factors on consumer decisions in response to price promotions. We identify factors related to the message (product category, frame) and the consumer (construal level) that might make the same promotion (e.g., \$5 off of \$25) more or less likely to be used by the consumer. In doing so, we aim to understand the process by which the compatibility of these factors affects behavior. Based on regulatory fit theory which argues that compatibility between factors generates momentum towards accomplishing the compatible goal (Higgins 2006), we propose that compatibility urges action (e.g., redemption of a coupon) towards compatible stimuli independent of product evaluations. In contrast, stimuli that are incompatible with the goal enhance the role of product evaluations in consumers' decisions to redeem the coupon for the featured product.

Theoretical Background. By examining the effects of compatibility between three factors (product category, frames, and construal level) on coupon redemption, we integrate two disparate streams of literature. First, past research in consumer choice has shown that gain framed choices are likely to favor utilitarian products over hedonic ones (Dhar and Wertenbroch 2000). In contrast, loss framed choices tend to favor hedonic rather than utilitarian options. This research suggests that hedonic items are compatible with a loss frame whereas utilitarian items are compatible with a gain frame. A second set of findings has suggested that factors that focus on losses (e.g., prevention focus) are compatible with a near time frame and factors that focus on gains (e.g., promotion focus) are compatible with a distant time frame (Förster and Higgins 2005). On the basis of these two sets of findings we propose that for products that are associated with a utilitarian goal (e.g., an energy bar), gain framed messages presented under higher levels of construal are most effective because of the enhanced compatibility. In contrast, for products associated with hedonic goals (e.g., a chocolate cake), loss framed messages presented under lower levels of construal are compatible. Compatibility, in turn, generates an enhanced momentum for action and increases redemption likelihood. Importantly,

we expect the effect of compatibility on redemption to be independent of product evaluations.

Overview of Results. In four studies, participants at higher or lower levels of construals are presented with gain or loss framed coupons. These coupons either feature a product associated with a hedonic or a utilitarian goal. Redemption likelihood, evaluations of the featured product, and other process measures are collected. Study 1 shows that for a hedonic product, redemption is highest under compatibility conditions (loss frame presented to low-level construers) than for the other three conditions. Providing further support for the proposed compatibility thesis, study 2 reveals that compatibility (utilitarian product, gain frame presented to high-level construers) leads to greater redemption than the other (incompatible) conditions. Interestingly, our results show that the effect of product evaluation on redemption is not significant in the presence of compatibility, suggesting that a stronger motivation to act, rather than evaluation drives redemption under conditions of compatibility. Consistent with this expectation, study 3 reveals that participants in compatibility (vs. incompatibility) conditions make the redemption decision faster and pay less attention to the product quality. In study 4, we find that redemption of an actual coupon offered by a local restaurant varied in accord with our predictions.

Conclusion. While previous studies on compatibility have focused on elaboration or fluency as explanations for compatibility effects on attitudes, our studies show a mechanism that links compatibility directly with behavior and suggests that compatibility might affect behavior independently of attitudes. Our findings support an explanation based on the strength of engagement—in other words, a process in which compatibility creates a momentum for action—might characterize the effects of compatibility on behavior. Higgins (2006) suggested that people experience greater strength of engagement when responding to goal-compatible (vs. incompatible) stimuli, which should fuel a momentum towards performing the compatible action. Incompatibility dilutes this momentum, lowering the propensity towards action, and increases the impact of product evaluations on redemption. On a broad level, these results contribute to increasing our understanding of consumer motivation underlying goal-directed behavior.

“Kindling the Motivation System: Impact of Incident Hedonic Cues on Subsequent Goal Pursuit”

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Baba Shiv, Stanford University, USA

Our consumption environment is abundant in cues that are high in hedonic value (i.e., cues that are desirable). A whiff of a fragrance, a sample of a refreshing drink or an advertisement picturing romantic images are some such cues that we commonly experience in our everyday lives. While, recent research on consumption motivation suggests that experiencing such high hedonic value consumption cues can lead to generalized reward seeking behaviors (e.g., Van den Bergh, Dewitte and Warlop 2008; Wadhwa, Shiv and Nowlis 2008), relatively little is understood about whether and how experiencing such cues impact consumer's subsequent goal related behaviors. Since arguably all of consumer choices and behaviors are goal driven (Bettman, Luce and Payne 1998), investigating how such experiences with hedonic cues impact subsequent goal related behaviors is consequential both from the marketers' and consumers' perspectives. Drawing upon the synthesis of research on consumption motivation (Van Den Bergh et al.; Wadhwa et al. 2008) and the recent evidence in neuroscience (Depue and Collins 1999; Berridge 2007; Salamone 2007), in the present research, we propose that the motivational drive activated by brief experiences with hedonic cues can enhance pursuit of a subse-

quently adopted goal. To illustrate, our proposition would suggest that if a consumer adopts an environmental goal following the consumption of an appetitive beverage sample, she should now be motivated to make a larger donation for an environmental cause (than if she had not sampled the appetitive beverage).

We address the aforementioned research proposition in a series of studies across an array of consumer goals and dependent variables. In study 1, we sought to explore the basic research question—whether or not a brief experience with a hedonic cue can enhance pursuit of a subsequently adopted goal. Our findings demonstrate that participants who had experienced a hedonic cue (romantic images) set a higher health goal (i.e., number of hours they were planning to work out), but only when they were primed with a health goal. In study 2, we sought to provide further support for our core research proposition. Specifically, we argue that when the motivational drive state activated in response to experience with hedonic cues is satiated, impact of hedonic cues on subsequent goal pursuit behaviors should get attenuated. To test this logic, we carried out the motivational drive manipulation by employing a sampling paradigm. All respondents sampled either Hawaiian Punch (motivational drive-induced condition) or a neutral water drink (motivational drive-not induced condition) presented to them in the disguise of a newly launched sports drink. Subsequently, we carried out the drive state satiation manipulation, which was adopted from Wadhwa et al. (2008). Specifically, participants who had experienced the hedonic cue either received a surprise reward (candy bar) after the hedonic cue experience but before the goal adoption (motivational drive -satiated), or they received the candy bar at the end of the study (motivational drive-induced). In this study, we measure actual persistence on a subsequent goal, which in this study was an intellectual goal that involved working on anagrams. We predicted that sampling a consumption cue high in hedonic value should enhance persistence on the subsequent intellectual goal involving unscrambling anagrams. However, when the induced motivational drive state is satiated (i.e., when participants received the surprise reward in an intervening task), the impact of hedonic cues on subsequent goal pursuit behaviors (persistence on anagrams) should get attenuated. Consistent with our propositions, we show that respondents who had experienced the hedonic cue (motivational drive-induced condition) persisted longer on the anagrams than those who had not experienced the hedonic cue (motivational-drive-not induced condition). Further, our results show when the induced motivational drive was satiated by giving a surprise reward in an intervening task, the impact of experiencing hedonic cue on subsequent goal persistence was attenuated.

In study 3, we provide further support for our activated motivational drive hypothesis. Further, study 3 shows that given a sequence of goals, the induced motivational drive enhances the pursuit for the more salient goal, that is, the goal temporally proximal to the source of activated motivational drive. To elaborate, in study 3, female participants were sequentially exposed to two goals (dieting and environmental goal), the two goals being separated by a five-minute filler task. However, in one set of conditions (goal salient-dieting), motivational drive was manipulated proximal to the dieting goal—that is, respondents sampled either an appetitive drink (motivational-drive-induced) or a neutral drink (motivational-drive-not induced) as soon as the dieting goal was made salient. In the other set of conditions (goal salient-environment), respondents sampled either an appetitive drink (motivational drive-induced) or a neutral drink (motivational-drive-not induced) proximal to when the environmental goal was made salient. Subsequently, respondents moved to another room where they made food (cookies) and drink (lemonade) choices. Finally,

respondents were asked to indicate the amount of money they were willing to pay for a charity devoted to an environmental cause. They were informed that the amount they indicate will be deducted from their study compensation. Our results show that participants showed enhanced pursuit for the dieting goal when the motivational drive state was activated temporally proximal to the dieting goal. Specifically, these participants chose to consume less of cookies and sweetened lemonade. In contrast, when the motivational drive state was activated proximal to the environmental goal, participants showed enhanced pursuit for the environmental goal—these participants chose to donate more money for the environmental cause. Across these studies, I also rule out alternative accounts related to factors such as mood and arousal.

In sum, our findings suggest that a brief experience with a hedonic cue can enhance pursuit of a subsequently adopted goal that is unrelated to the experienced hedonic cue. Implications for marketers and policy makers are discussed.

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