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Differentiating the Psychological Impact of Threats to Hope and Hopefulness

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Recent work identifies hope as an under-explored though potentially important emotion and suggests that hope can be differentiated from an often confused construct—hopefulness. A field experiment involving 272 real world consumers investigated the effects of both hope and hopefulness on consumers' decisions and actions related to retirement investing. The results show that hope and hopefulness are two distinct emotions and have very different effects on consumers' information search, risk perceptions, and choice outcomes in retirement investment decisions, with hopefulness impacting the likelihood that consumers would invest in a 401k retirement plan and hope impacting the extent of their information search and risky decision making.

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SPECIAL SESSION SUMMARY The Distinct Effects of Hope in Consumption

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SESSION OVERVIEW

Whether yearning to achieve your goals or rewarding yourself for a job well-done, feelings of hope and feelings of pride are regularly regarded as important emotional triggers of consumption behavior. Hope is pervasive in marketing and consumer acquisition in numerous industries such as diet and exercise, medicine, and finance (MacInnis 2005). In addition, consumers often take pride in the products they purchase or avoid, making hope and pride two prevalent positive emotions in consumption. Previous research on hope (e.g., de Mello et al. 2007; MacInnis and de Mello 2005) and pride (e.g., Tracy and Robins 2007; Williams and DeSteno 2009) has shown that these two positive emotions are important motivators of behavior; however, it is unclear whether these distinct positive emotions influence different consumption behaviors in a similar way. Do hope and pride influence behavior similarly across different consumption contexts (e.g., purchasing novel products, eating behavior, and investment decisions)? Moreover, do hope and hopefulness have distinct effects on consumption decisions? This session highlights important differences in the behaviors motivated by hope in contrast to other positive emotions such as pride and hopefulness across distinct consumption contexts.

Hope is a positive emotion, which represents the degree to which one yearns for a good outcome that seems possible even if it might not be likely (MacInnis and Chun 2007). In the first paper, Cavanaugh et al. explore how two specific positive emotions—hope and pride—influence cognitive processing and purchase behavior. They find that hope causes consumers to be willing to pay more for novel products than does pride when resources are constrained (i.e., non-optimal time of day). Further, hope improves performance relative to pride on tasks requiring fluid intelligence. These findings suggest an interesting interaction between experienced emotion and consumption context and raise an important question—when might hope and hopefulness help (versus potentially harm) consumers?

While some previous research demonstrates that positive affect may lead individuals to control their impulses, other research suggest positive affect leads to indulgence. In the second paper, Winterich and Haws try to reconcile these findings through considering the differential effects of hope in contrast to pride and happiness on eating and spending self-control. In a series of four studies, they find that hope may increase self-control relative to neutral, proud, or happy emotional states.

The third paper by Nenkov, MacInnis, and Morrin, distinguishes hope from hopefulness, demonstrating the distinct effects of these two emotions on retirement investment decisions. Defining hope as the extent of yearning for and hopefulness as the perceived likelihood of a goal-congruent outcome, their work finds that consumers' levels of hope and hopefulness are differentially associated with personality traits such as optimism and risk aversion. Furthermore, hopefulness influences 401(k) participation rates whereas hope influences information search and risky decision making.

Addressing the effects of positive emotions which are pervasive in consumption, this symposium presents findings suggesting that hope may differentially impact processing, self-control, and decision making. In contrast to traditional research on positive affect, the three papers in this session demonstrate that positive

emotions can have vastly different and even opposing consequences. Theoretically, the set of papers clarify the characteristics of hope, pride, and hopefulness that are influential in consumption. As such, specific positive emotions such as hope, pride, and hopefulness can be used by marketers as strategic tools. Moreover, consumers and public policy makers need to consider the extent to which positive emotions may unknowingly influence consumers' decisions, resulting in poorer health or financial security (Baumeister et al. 2007).

EXTENDED ABSTRACTS

"Hope, Pride, and Processing During Optimal and Nonoptimal Times of Day"

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Most research involving positive affect and emotion argues that various positive emotional states have similar effects on behavior (Fredrickson 1998, 2001; Isen 2001), such as problemsolving and cognitive flexibility. In this research, we show that specific positive emotions can differentially influence cognitive flexibility and consumption behavior, particularly when inhibitory resources are low.

Work on mood freezing and cognitive load suggests that the magnitude of emotion's effect can be increased or decreased based on the availability or perceived availability of an individual's resources (e.g., Shiv and Fedorikhin 2002). One naturally occurring factor that influences the availability of cognitive resources is an individual's circadian rhythm (Kruglanski and Pierro 2008; Yoon, May, and Hasher 2000). During different times of day (i.e. morning vs. evening), individuals have been found to feel and operate at their personal best or not (i.e. optimally or nonoptimally) based on their personal circadian rhythms. Thus, one important factor that may amplify or lessen the effects of emotion is time of day. Specifically, during nonoptimal times of day resources are less readily available, and therefore automatic, association-based processing (Kahneman and Frederick 2005; Stanovich and West 2002) is more likely (Bodenhausen 1990: May et al. 2005). We contend that associationbased emotion mechanisms are likely to be more prevalent during nonoptimal times of day when processing resources are reduced and inhibitory control is lower (Hasher et al. 1999).

Based on reasoning about distinct emotion associations, we contrast the emotions hope and pride. The unique associations with hope suggest that a valued goal is possible, while associations with pride suggest a valued goal has already been achieved. Hope is differentially associated with concepts such as striving, possibility, effort, or the future, whereas pride is associated with concepts such as achievement, fulfillment, or the past. We believe that the distinct set of associations for each emotion can have important processing implications, particularly for fluid processing tasks requiring mental exploration or cognitive flexibility.

We hypothesize that during nonoptimal times of day hope will promote more fluid processing, i.e., more mental exploration and generation of possibilities, than pride. In Experiment 1 we use a preference valuation task where fluid processing seems likely to facilitate generation of possible or potential uses for considered items; in experiment 2 we use an intelligence task where fluid processing appears to facilitate generation of possible solutions and ultimately performance. As a result, we expect hope, but not pride, to increase valuation of items in assessing preferences in real-time, i.e. constructive preferences (experiment 1), and performance on measures of fluid problem-solving (experiment 2) during nonoptimal times of day.

Experiment 1. Experiment 1 consisted of a 2 (time of day: optimal vs. nonoptimal) x 3 (emotion induction: hope, pride, neutral) between subjects factorial design. Approximately one week before participating in the main experiment, participants completed the Horne and Ostberg (1976) Morningness-Eveningness Questionnaire (MEQ), a validated individual measure of when people reach their functional peak during the day (i.e. "optimal time of day"). Participants were categorized as morning-types or eveningtypes based on established scoring procedures and then randomly assigned to take the main experiment in the morning or the evening. Thus, participants were randomly assigned to take the study at their "optimal" time of day or "nonoptimal" time of day. Upon arrival for the main experiment, participants were randomly assigned to an emotion induction condition (hope, pride, neutral) following Lerner and Keltner's (2001) procedure. Participants were then asked to indicate how much they would be willing to pay for a variety of items for which they had little repeat-purchasing experience (Vohs and Faber 2007) and thus little crystallized knowledge to draw from in constructing their willingness to pay estimates.

We found a 2-way interaction of emotion condition and time of day for the total amount of money that a participant was willing to pay for the collection of items. Hope lead to greater valuation of items than pride or neutral in the nonoptimal time of day condition. No difference was found between neutral and pride, although pride was directionally lower. For the pride condition, participants in the nonoptimal condition were willing to pay significantly less than their counterparts in the optimal condition. Further, the emotion inductions did not significantly impact performance at optimal times of day.

Experiment 2. The purpose of experiment 2 was to better understand the process underlying our experiment 1 findings using a measure of fluid processing performance. Experiment 2 consisted of a 2 time of day (optimal vs. nonoptimal) x 3 emotion induction (hope, pride, neutral) between subjects factorial design. The time of day and incidental emotion manipulations were accomplished as in Experiment 1. Participants were then asked to complete two wellestablished measures of intelligence. The first task was a measure of fluid intelligence called "matrix reasoning." The second task required participants to complete a test of crystallized intelligence consisting of vocabulary related questions (see Goldstein et al. 2007) using analogies and sentence completion.

Analyses replicated the established time of day findings that participants in a neutral emotional state perform better on fluid, but not crystallized, intelligence measures at optimal times (Goldstein, Hahn, Hasher, Wiprzycka, and Zelazo 2007). There was no effect of time of day on crystallized intelligence. We found the expected 2-way interaction of emotion condition and time of day for fluid intelligence performance. As predicted, hope led to better performance than pride or neutral at nonoptimal times of day. No difference was found between neutral and pride. As predicted, the difference between emotions did not impact performance at optimal times of day. Interestingly, within the hope condition, participants at their nonoptimal time of day actually performed better than their optimal counterparts.

Thus, the results of two experiments demonstrate that two different positive emotions, hope and pride, affect processing

differentially at nonoptimal times of day. Specifically, hope increases individuals' willingness to pay for items with which they have little prior knowledge or experience compared to pride and a neutral condition. Moreover, hope improves objective performance on tasks requiring fluid processing compared to pride and a neutral emotional state.

"Helpful Hopefulness: The Positive Impact of Hope on Self-Control"

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If you receive an "A" on an exam and feel hopeful about your future class performance will your self-control differ than if you experience happiness from receiving this "A"? We propose that the characteristics of specific positive emotions influence whether positive affect increases or decreases self-control. For some time researchers utilized a global category of "happiness" to cover all positive emotions, but recent research has differentiated positive emotions, finding critical differences (Siemer et al. 2007). Some research finds that positive mood can stimulate eating (Macht et al. 2002) and lead individuals to feel both unconstrained and deserving (Rook and Fisher 1995). However, research also suggests that positive affect may enhance self-control (Raghunathan and Trope 2002), particularly when no mood maintenance goal is accessible (Fishbach and Labroo 2007). Given these divergent findings, we focus our investigation on impact of incidental hope in contrast to other incidental positive emotions on self-control.

Hope is a positively-valenced emotion evoked in response to an uncertain but possible goal-congruent outcome, which results in a determination to find pathways to achieve goals (Lazarus 1991; Snyder et al. 1991). The goal-driven characteristics of hope (de Mello et al. 2007), in combination with the desire to expend effort (Ellsworth and Smith 1988), allow hopeful individuals to overcome obstacles and achieve objectives, which should positively influence self-regulation in that present decisions will be more consistent with the achievement of long-term goals (MacInnis and de Mello 2005). Therefore, we argue that hopeful individuals will demonstrate greater self-control than those in a neutral state.

In our first two studies, we used a two-factor between subjects design with either hopeful or neutral emotion manipulations, in which participants wrote about something that makes them most hopeful or their typical evening (neutral condition). In study 1, participants were given a bowl containing 50 grams of pretzels (2.5 servings) at the start of the emotion induction which was said to be a thank you for completing the studies. Pretests suggested the pretzels were perceived as hedonic enough to enact self-control mechanisms. Remaining grams of pretzels were measured at the end of the study. An ANCOVA including the emotion condition with time of day and gender as covariates indicated that those in the hopeful condition ate significantly fewer pretzels than those in the neutral condition.

In study 2, participants indicated their willingness to pay for a movie pass and a restaurant gift card at the present time and six months in the future with the order of both products and timeframe counterbalanced. The premium was the dependent measure, previously used as a proxy for self-control (Fujita et al. 2006). ANCOVA analyses revealed that the premiums participants were willing to pay to speed up consumption differed by emotion condition, such that those who were hopeful demonstrated enhanced self-control as expressed by a smaller premium to speed up consumption than their neutral counterparts. Across domains of eating and spending, hope appears to increase self-control. How is this effect related to other distinct positive emotions, as research has suggested positive affect can decrease self-control?

Pride is a positively-valenced self-conscious emotion, derived from known accomplishments, and as such is more present and inward focused than hope (Ellsworth and Smith 1988). This focus on one's achievements may lead one to feel worthy or deserving of present indulgence, resulting in decreased self-control in unrelated domains (Baumeister and Exline 1999; Giner-Sorolla 2001). As such, when individuals feel they have accomplished a goal, pride may provide a license to indulge in other areas. Overall, we anticipate that pride will decrease self-control relative to hope.

In study 3, participants were randomly assigned to one of three emotion inductions: hope, pride, and neutral. Procedures were the same as Study 1 with pretzel consumption as the dependent variable. An ANCOVA including time of day and gender as covariates revealed a significant effect of emotion on pretzel consumption. Follow-up contrasts revealed that hope resulted in less pretzel consumption than either pride or neutral.

Finally, in study 4 we examined product type as a potential boundary condition. We chose two products that clearly differed in hedonicness (raisins and M&Ms) and allowed participants the opportunity to consume either or both of these snack foods. We anticipated that emotion would impact the consumption of the hedonic M&M option but not raisins. We focused our investigation on hope in contrast to another positive emotion, happiness. The effect of emotion condition was moderated by product type such that participants in a happy state consumed a larger portion of the hedonic food than those in a hopeful state but there was no difference in consumption of the less hedonic food between emotion states.

Together our experiments demonstrate that specific positive emotions can differentially impact a consumer's ability to exercise self-control. Hope tends to increase self-control relative to other positive emotions such as pride and happiness. Replicating the effect both with eating and spending enhances our confidence in the generalizability of these findings. The uncertain, future outcome associated with the emotion of hope along with a focus on more situational factors contrasts with the certain, self-focused, and pastoriented outcome that engenders feelings of pride and happiness. These differential effects of positive emotions on goal-relevant behaviors are important given the current lack of control individuals' exhibit (Baumeister et al. 2007).

"Differentiating the Psychological Impact of Threats to Hope and Hopefulness"

Gergana Y. Nenkov, Boston College, USA Deborah MacInnis, University of Southern California, USA Maureen Morrin, Rutgers University, USA

Recent work identifies hope (the degree to which one yearns for a good outcome that seems possible even if it might not be likely) as an under-explored and potentially important emotion (e.g., MacInnis and Chun 2007). That same work suggests that hope can be differentiated from an often confused emotion—hopefulness (the extent to which one believes that a positive outcome is actually likely), as these two emotions are not necessarily related and can operate differently. Previous research has not made a distinction between hope and hopefulness, nor has it examined their separate behavioral effects.

In this paper we investigate the effects of both hope and hopefulness on consumers' decisions and actions related to retirement investing. For this purpose we ran a field experiment where 272 real world consumers had to decide 1) whether to invest in a 401(k) retirement plan offered by their employer and 2) how to allocate their money across eight available mutual funds. We first measured participants' current levels of hope and hopefulness for having enough money to retire. Hope was measured by asking

respondents about their desire to retire with enough money, the importance of having a financially secure retirement for their psychological well-being, and the pleasure that this outcome would give them. Hopefulness was measured by asking participants to assess the likelihood of having enough money to retire using a scale of 0% to 100%.

Participants were then randomly assigned to one of two experimental conditions: a control condition, in which current levels of hope and hopefulness were not manipulated but only measured and a condition, in which hope and hopefulness were threatened. Specifically, in the threat condition, respondents read a document indicating that recent reports have revealed that the likelihood of attaining a secure retirement is worse than they thought since many experts now agree that Americans are doing an even worse job of saving for retirement than the industry typically proclaims. In the control condition they read a similar document, but it presented neutral information that stated that the likelihood of attainting a secure retirement is unchanged and that prior projections about Americans' retirement saving are correct and consistent with their likely need.

After reading this information, participants had to decide whether to invest in a hypothetical 401(k) plan offered by their employer. Respondents were shown detailed descriptions of eight mutual funds with various levels of risk and return. They were then asked to indicate what portion of the \$15,500 they are allowed they would actually invest, and how they would allocate the money across the eight funds. After they made their allocations, participants' information search patterns were measured by asking them to check all the funds they had considered investing in, whether or not they actually invested in them. ¹

Influence of prior levels of hope and hopefulness. First, the correlations of participants' hope and hopefulness with their psychological traits and investment decisions were examined. Analysis, performed in the control condition of the experiment, where prior levels of hope and hopefulness were not manipulated, revealed that strong hope and strong hopefulness for retiring securely tend to be related to different consumer traits and characteristics.

Overall, stronger hope seems to be related to less rational behavior. Results revealed that participants with higher hope seem to have more anxiety about investing and search for more information before making a decision—perhaps because they are less experienced with investment decisions. They think about the consequences of their decisions to a greater extent and seem to be slightly more risk averse in general. Paradoxically, they tend to expect a higher return from their investments, but tend to invest more conservatively. Stronger hopefulness, on the other hand, seems to be related to more rational behavior. Participants with higher hopefulness are more knowledgeable about investments, less risk averse, and more optimistic. They find the investment decision less difficult and are more satisfied with it once they have made it. In sum, these individuals seem to have more peace of mind with their decisions—yet they take more risks.

Influence of threats to hope and hopefulness. Results revealed that threats to hope and threats to hopefulness have different effects on consumer's responses to the investment scenario. Specifically, threats to hopefulness were found to affect 401(k) participation rates. Compared to the control condition, threatening hopefulness increased the likelihood of joining a 401(k) plan for those with high

¹Next, we administered manipulation and confound checks, measured several individual traits (optimism, consideration of future consequences, risk aversion, and knowledge about investing), and collected demographic information.

initial levels of hopefulness. However, people with low initial levels of hopefulness, who were slightly less likely to enroll in the control condition, reduced their participation rates even further as a result of the threat. It seems that threatening individuals' high hopefulness motivates them to constructive action, such as enrolling in the proposed plan, while this threat backfires for people who are less hopeful. This result is consistent with past research, which has suggested that hopefulness is a major condition for motivation and action (MacInnis and Chun 2007).

Threats to hope impacted different aspects of the investment decision process by affecting the extent of information search and risky decision making. First, when people's strong hope was threatened they searched for more information regarding investment choices by considering more mutual funds and more asset classes, compared to participants in the control condition. It seems that when the hoped for outcome is seen as less likely, people increase their efforts to find information confirming the possibility of the outcome. These findings are consistent with past research that argued that the amount of information search is affected by the extent to which information supports the possibility of achieving the goal (de Mello, MacInnis, and Stewart 2007).

Threats to hope were also found to affect the level of risk participants were willing to take. Even though people with stronger hope were more risk averse in the control condition, when their hope for a secure retirement was threatened, they allocated more money to the riskier stock funds and less to the risk-free money market fund. These findings are consistent with a previously untested hypothesis that strong yearning for an outcome makes people willing to bear more risk in order to achieve this outcome (MacInnis and de Mello 2005).

These results underscore the value of differentiating the construct of hope from the construct of hopefulness and also reveal the differing psychological impact of threats to each of these constructs. Findings from this project are likely to have important implications for the design, presentation, and communication of defined-contribution retirement plans and financial products in general, and for the growing practice of developing investor education programs and campaigns targeted at improving investment practices and boosting retirement savings.

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