Means versus Ends: The Roles of Implicit Theories and Maximizing versus Satisficing Orientations in Consumer Evaluations

Meng-Hua Hsieh

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Reading Committee:
Shailendra Pratap Jain, Co-Chair
Richard Yalch, Co-Chair
Mark Forehand

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Abstract

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Meng-Hua Hsieh

Co-Chairs of the Supervisory Committee:
Professor Shailendra Pratap Jain
Department of Marketing and International Business

Professor Richard Yalch
Department of Marketing and International Business

This dissertation consists of two essays. The first essay investigates how consumers’ implicit theories influence their sensitivity to reward points. This paper demonstrates that consumers’ susceptibility to reward points differs depending on their implicit theory. Incremental theorists, who believe in changeability, are process focused and susceptible to reward points, while entity theorists, who believe in fixedness, are outcome focused and display less sensitivity to reward points, unless their theories are violated or they are encouraged to focus on the process. The second essay examines maximizing and satisficing consumers’ decisions when they are forced to make a trade-off between desirability and feasibility. This paper demonstrates that when facing a trade-off between desirability and feasibility, compared with satisficers, who pursue a “good enough” option, maximizers, who pursue the “best” option, emphasize the desirability of the outcome and choose a difficult-to-obtain option over a less desirable but easy-to-obtain option. The study shows that maximizers express greater purchase intentions when the aspects highlighted by maximal comparative claims match their preference for desirability, while satisficers express similar purchase intentions regardless of the orientation of maximal comparative claims.
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OVERVIEW

This dissertation addresses two research questions. First, how do consumers’ implicit theories and maximizing versus satisficing orientations influence their information processing, evaluations, and decisions? Second, how do factors related to stimulus, situation, and message recipients influence the effectiveness of marketing communications? The purpose of this two-essay dissertation is to examine the influence of consumers’ process versus outcome focus on their evaluations and to suggest when and why marketing communications should emphasize process or outcome by investigating the roles of implicit theories and maximizing versus satisficing orientations drawn from personality and information-processing theories.

Mental simulation literature has identified two types of mental simulation: process-focused thinking and outcome-focused thinking. When people engage in process-focused thinking, they imagine the process of achieving the outcome. When they use outcome-focused thinking, they think about the outcome after reaching an end goal (Taylor et al. 1998). Process- and outcome-focused thinking change the relative focus on desirability and feasibility. People engaging in outcome-focused thinking pay more attention to the end benefits and desirability aspects of an action (Thompson, Hamilton, and Petrova 2009; Zhao, Hoeffler, and Zauberman 2007). People who engage in process-focused thinking concentrate more on the feasibility aspects of an action than the desirability aspects of an action (Zhao et al. 2007).

In the first essay, the process- versus outcome-focused thinking paradigm is particularly relevant to perception of reward points because these points are the means of obtaining the ultimate reward and the desirable reward is the outcome. Dweck and Leggett (1988) posit that in evaluating attributes external to their selves, entity theorists use judgment goals and rely more on outcomes, while incremental theorists use development goals. Therefore, entity theorists tend to
be more outcome focused (Butler 2000), and incremental theorists tend to be process focused (Miller, Burgoon, and Hall 2007; Molden, Plaks, and Dweck 2006). These differences in evaluative approach imply that different implicit theories may lead to a different focus on the elements of reward programs. In the second essay, the feasibility of obtaining an end goal corresponds to the process, and the desirability of an end goal corresponds to the outcome. The second essay proposes that because maximizers are outcome focused, they pay more attention to the desirability information; conversely, satisficers are process focused and thus pay more attention to feasibility information.

The first essay explores how consumers with different mind-sets and beliefs process information about the reward points versus the ultimate reward, two elements in reward programs. The difference between reward points and the ultimate reward corresponds to a difference between process and outcome. Research has documented that consumers extend more effort to acquire additional reward points even when they may not use them to obtain anything of substantial incremental value (Hsee et al. 2003; Van Osselaer, Alba, and Manchanda 2004). However, research on situations in which consumers focus more on reward points than on the ultimate reward is scarce.

This research investigates how consumers’ implicit theories influence their sensitivity to media (i.e., mileage or points). The paper describes three experiments that examine this sensitivity. Study 1 manipulates consumers’ implicit theories about fixedness/changeability and finds that incremental theorists, who believe in changeability, display a greater tendency to rely on reward points. In contrast, entity theorists, who believe in fixedness, display less sensitivity to reward points. Study 2 qualifies these findings by confirming and measuring implicit theories rather than manipulating them. It also demonstrates that when consumers’ implicit theories are
violated, entity theorists show a tendency to rely on reward points, while incremental theorists become insensitive to them. Study 3 finds that when incremental theorists are encouraged to focus on the final reward (outcome) through advertising, they remain susceptible to reward points. However, when entity theorists focus on reward points (i.e., process), they become sensitive to them.

The second essay examines how maximizers, who pursue the “best” option, and satisficers, who pursue a “good enough” option, place a different emphasis on process and outcome. Prior research has proposed that the differences between feasibility and desirability also correspond to differences between process and outcome (Zhao et al. 2007). Thus, this research also investigates how these differences influence consumers’ decisions when making a trade-off between desirable and feasible options. It uses scenarios in which different elements represent desirability and feasibility to document the effects. Maximizers are more willing to spend extra resources to gather information and search for alternatives to achieve the best outcome (Chowdhury, Ratneshwar, and Mohanty 2009; Dar-Nimrod et al. 2009; Schwartz et al. 2002).

This essay proposes that maximizers tend to be more outcome focused and thus rely more on outcome information and the desirability of the end state to make evaluations. In contrast, satisficers tend to be process focused and thus pay more attention to feasibility information. That is, they limit their information search, decline to spend extra time and effort, and thus settle for a good enough option that meets their minimum criteria (Dar-Nimrod et al. 2009; Schwartz et al. 2002).

This research further demonstrates that as people’s maximizing orientation increases, their preference for a higher-desirability, lower-feasibility option increases when choosing
between it and a lower-desirability, higher-feasibility option. It also finds that maximizers express greater purchase intentions when the orientation of maximal comparative advertising claims matches their preference for desirability. Satisficers are less influenced by a maximal comparative claim in which an advertised brand is presented as superior to all other brands, regardless of message orientation. This research has implications for the effectiveness of comparative advertising that highlights different types of attributes.
ESSAY 1: THE ROLE OF IMPLICIT THEORIES IN CONSUMERS’ SUSCEPTIBILITY TO REWARD POINTS

I don’t spend a nickel if I can help it unless it somehow profits my mileage account. The miles are the goal.

—George Clooney, *Up in the Air*

Consumers frequently expend effort for a future reward on activities such as responding to surveys and making purchases. However, the immediate benefit for such efforts, such as reward points or airline mileage, is often merely a “medium” (Hsee et al. 2003). Consumers use medium-relevant information to infer reward program progress and likelihood of recommending the program (Bagchi and Li 2011). In the past few years, marketers’ use of such media has increased substantially. Between 2000 and 2006, reward program membership revenues alone across diverse industries in the United States increased by 35.5%, purportedly reaching $1.3 billion (Ferguson and Hlavinka 2007). A specific example of a reward program is that offered by Chase Freedom credit cards. Under this program, cardholders receive five points for every dollar spent in specially designated categories and one point for every dollar spent in other categories. After accumulating a certain number of points, consumers can redeem them for one or more favorable outcomes, such as a reward check or merchandise. This research attempts to address the unanswered question whether a firm, in its promotions and communications, should highlight the points or the final reward and why.

Research has examined how certain reward program elements, including effort, currency, medium structure, and ultimate outcomes, influence overall program performance (Bagchi and Li 2011; Hsee et al. 2003; Kivetz and Simonson 2002, 2003; Van Osselaer et al. 2004). A
recently documented finding is that consumers tend to expend extra effort to acquire additional points even when such points cannot be used to acquire anything of substantial incremental value. This phenomenon is referred as the “medium maximization effect” because consumers are inclined to maximize the medium, when present, rather than the outcome (Hsee et al. 2003; Van Osselaer et al. 2004).

Medium maximization research is relatively nascent, and therefore the robustness of this effect and its underlying psychological processes remain unclear. Liu and Yang (2009) specifically note that “the three sets of factors … (i.e., program-related factors, customer-related factors, and competition-related factors) are likely to interact with one another” (106) to determine a reward program’s success and that “further research is needed to identify and test … consumer traits” (97) to understand consumer reactions to a reward program. Indeed, research has not examined situations when consumers focus more on points than ultimate choices. This paper attempts to fill this gap by exploring how consumers with different mind-sets and beliefs process information pertaining to points versus the outcome. In particular, across three experiments, we show that consumers’ implicit theories about fixedness or changeability influence their reliance on reward points versus the final outcome when making choices.

Our findings suggest that incremental theorists, who believe in changeability, exhibit a reliance on reward points more than entity theorists, who believe in fixedness. This finding leads us to make three contributions. First, it suggests that reward program effectiveness can be enhanced by activating incremental or entity theory orientations, which in turn could affect consumers’ reliance on reward points (study 1). In support of this notion, the finding underscores consumers’ chronic implicit theories as a basis for market segmentation (studies 2 and 3). Second, this research highlights the psychological mechanism underlying this effect—that is,
that entity theorists are more outcome (reward) focused while incremental theorists are more process (points) focused. Third, this research is the first to test the influence of a novel implicit theory in the domain of the economic marketplace as the fulcrum for varying consumers’ notions of fixedness or changeability. Dweck, Chiu, and Hong (1995a, 1995b) have published an impressive body of work pertaining to implicit theories in domains such as general world order. We add to this body of research by introducing a new domain that may be of particular relevance to business and policy research, which we discuss in the General Discussion section.

THEORETICAL BACKGROUND

To develop our theoretical framework, we examine two streams of research. First, research on the medium maximization effect suggests that a reward’s medium influences decision making. Second, research on implicit theories identifies people’s beliefs in fixedness or changeability pertaining to different domains. This latter literature highlights the critical difference between incremental and entity theorists in their “process” versus “outcome” orientation or focus.

Medium Maximization Effect

A reward program’s currency or medium (e.g., points) is inconvertible; it has no monetary value beyond the scope of the program (Hsee et al. 2003). Thus, introducing a medium should not influence a rational decision maker’s choice. However, empirical evidence shows that this is not the case. Hsee et al. (2003, 3) identify the medium maximization effect, defined as “the difference in decision between two consequentially equivalent conditions, one with a medium and one without.” They find that consumers are motivated to acquire additional points
even though they cannot use these points to acquire a superior outcome. They posit that a medium seems to create an “illusion of advantage.”

Consistent with this finding, Van Osselaer et al. (2004) find that frequent-flier points influence consumers’ choice between two airlines even if consumers are aware that each airline requires the same purchases and offers the same total reward points for an identical reward outcome. Each airline awards points in different temporal sequence. Van Osselaer et al. argue that reward points constitute irrelevant information because the same number of points is allocated across the same number of purchases, albeit differently. However, in their experiment, a majority of the consumers chose the airline that offered the greater number of points for the first purchase. In line with this research, Nunes and Drèze (2006) identify an “endowed progress” effect, described as the tendency to exert more effort and accelerate toward a goal when artificial advancement toward the goal is given. Importantly, they show that this effect is magnified when points, rather than purchases (e.g., bottles of wine), are used to induce progress endowment. Similarly, Bagchi and Li (2011) find that step-size ambiguity moderates the influence of the reward distance on inference of program progress, loyalty, and recommendation likelihood. Consumers with ambiguous step-size information employ only reward distance (the number of points needed) to make inferences. Conversely, consumers with precise step-size (points/dollar) information employ both reward distance and step-size information to draw inferences.

In short, limited but converging evidence suggests that the medium influences choice. However, consumers have different dispositions and decision-making strategies, so they may differ in their reliance on the medium when making decisions. For example, research has found that differences in analytical intelligence and rational thinking style moderate the influence of
process and outcome accountability on judgment quality (Langhe, Van Osselaer, and Wierenga 2011). Similarly, prior investigations have shown that consumer-level differences (e.g., regulatory focus, types of cognitions) moderate assimilation, contrast, compromise, and attraction effects (Mourali, Böckenholt, and Laroche 2007; Zhu and Meyers-Levy 2009).

Implicit Theories of Fixedness or Changeability

The wide-ranging influence of people’s implicit theories on a host of phenomena has been studied extensively in social, cognitive, and educational psychology. Broadly, Dweck and colleagues have identified implicit theories that refer to people’s beliefs about the fixedness or changeability of the world, objects, or human attributes. Two types of implicit theorists have been identified: entity theorists and incremental theorists. Entity theorists believe that human traits and attributes (intelligence and morality) are fixed and cannot be changed through personal development, whereas incremental theorists believe that human traits and attributes are malleable and can be developed incrementally through learning (Dweck et al. 1995a, 1995b; Dweck and Leggett 1988). Entity theorists understand and interpret a person’s behavior and moral beliefs on the basis of enduring and fixed traits, whereas incremental theorists give greater explanatory importance to dynamic processes and situational context, such as a person’s needs, goals, motivation, and emotions (Chiu et al. 1997; Molden and Dweck 2006).

As the return of Hong Kong to China approached, Hong Kong entity theorists more readily adjusted themselves to fit with the inevitable political transfer by showing no in-group bias, while incremental theorists affirmed their Hong Kong identities by showing in-group bias (Chiu and Hong 1999). Research in cognitive inertia suggests that people have beliefs that the marketplace is stable or changeable. For example, in the UK real estate industry, consumers
perceived the marketplace as highly stable even when there was a recession in the property market, a demonstration of cognitive inertia (Hodgkinson 1997). “The results suggest that different participants in the industry operate under different mental models of their competitive environment” (Napoli 2003, 106). Implicit theories represent mental models (Levy, Plaks, and Dweck 1999). Furthermore, managers’ cognitive models of the financial service industry do not seem to keep pace with the changing environment, such as deregulation (Reger and Palmer 1996). Building on previous work on cognitive inertia, which is consistent with the entity theory of the marketplace, we argue that different people hold different beliefs about the fixedness or changeability of the marketplace. Entity theorists believe that the economic marketplace has an unchangeable fundamental nature, while incremental theorists believe that through effort, markets can be shaped. Because this paper pertains to marketplace-related phenomena, we introduce implicit theories about the fixedness or changeability of the economic marketplace and examine their moderating influence on a focus on the medium versus the reward.

We derive the theoretical basis for the paper’s propositions from several recent works. Dweck and Leggett (1988) posit that in evaluating attributes external to one’s self, entity theorists use judgment goals and rely more on outcomes while incremental theorists use development goals, focusing more on improving the process. Similarly, in the consumer domain, Jain, Mathur, and Maheswaran (2009) find that regardless of whether an advertising message was framed in terms of avoidance or approach, entity theorists focused on the outcome (i.e., brand superiority) when assessing such claims. In contrast, incremental theorists relied on the process (i.e., advertising tactics), especially for avoidance frames. Therefore, entity theorists tend to be outcome focused and thus are more prone to making evaluations based on the outcome information and end goals (Butler 2000). Conversely, incremental theorists tend to be process
focused and thus rely more on contextual information and intermediate goals to make
evaluations (Miller et al. 2007; Molden et al. 2006). These differences in evaluative approach
suggest that different implicit theories lead to a different focus on the elements of the reward
programs. The process- versus outcome-focused thinking is particularly relevant to medium
perception because the medium is the process and the desirable reward is the outcome.

STUDY 1

Study 1 manipulated the implicit theory to explore its moderation of consumers’ reliance on
the medium. We hypothesized that incremental theorists would be more susceptible to the
presence of a medium because (1) they are both context driven and process focused and (2)
medium is a contextual cue and captures the process of measurable progression toward the
outcome. In other words, incremental theorists would tend to choose the alternative with more
points and be less focused on whether the additional points could bring them better outcomes.
We used a paradigm similar to that of Hsee et al. (2003) to examine the differences in choice
share between the points condition and the no-points condition. The required effort and outcome
were identical in these two conditions; the only difference was that one had points and the other
did not. When reward points were present (vs. absent), we expected incremental theorists to
choose a higher-effort option that garnered more points but a marginally less advantageous
outcome over a lower-effort option that garnered fewer points but a superior outcome. In
contrast, we expected entity theorists to be less likely to be influenced by the reward points and
more likely to focus on the best outcome possible, regardless of whether reward points were
present or absent. In other words, for these theorists, we predicted that the medium maximization
effect would not emerge. Formally:
H1: Incremental theorists will be more likely to choose the option that garners more points when the points are present versus absent. Entity theorists will show no differences in such choice when the points are present versus absent.

Method

*Design and Sample.* The experimental was a 2 (implicit theory: entity vs. incremental) × 2 (medium: no points vs. 100/150 points) full-factorial between-subjects design. We situationally activated the implicit theory by exposing participants to a research article that presented the economic marketplace as either stable or changeable. The article’s phrasing and content followed extant manipulations used by researchers, albeit in different domains. Sixty-nine participants recruited from an online panel participated in the study.

*Procedure.* Several implicit theory measures and manipulations exist corresponding to different domains, such as moral character and general world order (Dweck et al. 1995a; Levy, Stroessner, and Dweck 1998). Prior research has successfully manipulated the implicit theory of intelligence by exposing participants to research articles that depict human intelligence as a fixed and genetically determined trait or an acquired ability (Dweck and Leggett 1988). Chiu, Hong, and Dweck (1997) use a similar technique to manipulate implicit theories of personality. Consistent with this research, we employed two fictitious scientific articles that argued in support of the economic marketplace as being either fixed (entity theory) or changeable (incremental theory).

As an example, one of the paragraphs in the entity theory manipulation stated (see appendixes A and B for detailed manipulations):
In his speech at an international conference held at Washington D. C. earlier this year, Dr. Paul Medin, an economist at the National Institute of Economic Markets, argued that “in most markets, the fundamental character sets like plaster and rarely softens again.” He reported numerous longitudinal studies that show that markets—at both the macro and the micro level—“grow and develop, but they do so on the foundation of enduring characteristics.”

The article went on to argue that initially the economic and market characteristics might appear as a bundle of potentialities, but several researchers have found that these characteristics develop consistently along the same path over time, leading to the conclusion that the economic marketplace is fixed and stable.

The paragraph for the incremental counterpart read:

In his speech at an international conference held at Washington, D.C., earlier this year, Dr. Paul Medin, an economist at the National Institute of Economic Markets, argued that “no economy’s or market’s character is hard like a rock that cannot be changed. Only for some, greater effort and determination are needed to effect changes.” He reported numerous longitudinal studies that show that markets—at both the macro and the micro level—“grow, develop, and can mature and change their character, even in their later part of existence.”

The incremental article also cited multiple research studies converging on the notion that economic and market characteristics can be developed beyond their current patterns over time and therefore that the economic marketplace is changeable and can be cultivated.

Next, participants were asked to make a choice regarding the branch of a large bank at which they would buy a three-year, $5,000 certificate of deposit (CD). In the no-points condition, participants were asked to imagine that they had $5,000 cash to purchase a three-year CD from one of two bank branches nearby. Both branches were ostensibly offering a one-day promotion for those who bought such a CD. We manipulated the effort and the reward as follows: If respondents purchased the CD at branch A, which was five minutes away, they could
receive a $100 reward immediately. If they purchased the CD at branch B, which was six minutes away, they would receive $150 three years later. In the points condition, the alternatives were associated with points. Respondents would earn 100 points now if they purchased the CD at the branch five minutes away. With 100 points, the branch would give them a $100 reward immediately. They would earn 150 points now if they purchased the CD at the branch six minutes away. With 150 points, the branch would give them $150 three years later. Respondents were further instructed to imagine that they had money enough only to buy one CD and that points had no other value and were not transferable. Next, they were asked to choose between the branch five minutes away and the branch six minutes away. Finally, participants responded to the implicit theory of the economic marketplace scale used as a check of theory manipulations. We created a scale to measure the implicit theory of economic marketplace (adapted from Dweck et al. 1995a; Theory of General World Order) consisting of three items: (1) “Although some phenomena can be changed, it is unlikely that the core disposition of the economic marketplace can be altered”; (2) “The economic marketplace has its basic and ingrained dispositions, and you really can’t do much to change it”; and (3) “Some societal trends may dominate for a while, but the fundamental nature of the economic marketplace is something that cannot be changed much” (anchors for all three items: 1 = strongly agree, 6 = strongly disagree). Lower scores reflect a greater entity theory orientation regarding the economic marketplace. To ensure that the articles did not vary on other dimensions, participants rated their impressions of the entity theory article or incremental theory article on seven-point scales measuring their credibility, persuasiveness, ease of understanding, usefulness, and clarity, anchored by “not at all” (1) and “very much” (7) (Park and John 2010).
Results

Pretest. In a pretest (N = 74), most participants preferred $100 now (86.49%) versus $150 three years from now ($^2(1) = 39.41, p < .001).

Manipulation and Confound Checks. We averaged participants’ responses to the implicit theory measure to form an implicit theory index (α = .95). As expected, a 2 × 2 analysis of variance (ANOVA) on the implicit theory index revealed a significant main effect of implicit theory; those primed with the entity theory of the economic marketplace viewed the economic marketplace as more stable than those primed with the incremental theory ($MT = 2.58, MIT = 3.77, F(1, 65) = 17.85, p < .001), confirming success of the manipulation. No other results were significant. We averaged participants’ impressions of the entity theory or incremental theory article to form an index (α = .82). As expected, this measure did not differ across conditions (ps > .21).

Choice Share. The criterion variable was a binary choice of purchasing a CD at the branch five minutes away (coded as 0) or the branch six minutes away (coded as 1). The predictor variables were the presence or absence of points, implicit theory, and a two-way interaction between presence or absence of points and implicit theory. Logistic regression analysis revealed an interaction between medium and implicit theory ($β = 2.13, Z = 2.00, p < .05$) and a main effect of implicit theory ($β = -1.67, Z = -2.08, p < .05$). In support of hypothesis 1, contrast analysis further indicated that incremental theorists were sensitive to the reward points and showed the medium maximization pattern, such that they had a higher probability of choosing the option with $150 three years from now when the points were present (i.e., 150 vs. 100).
100 points) than when the points were not present ($M_{IT-no points} = 16\%, M_{IT-points} = 53\%; \beta = 1.81, Z = 2.22, p < .05$). In contrast, entity theorists’ probability of choosing the branch six minutes away did not differ by the presence or absence of the reward points ($M_{ET-no points} = 50\%, M_{ET-points} = 42\%; \beta = -.32, Z = -.47, p > .64$; see figure 1).

While not central to our predictions, contrast analysis indicated that incremental (vs. entity) theorists had a lower probability of choosing the option with $150 three years from now when the points were not present ($M_{IT-no points} = 16\%, M_{ET-no points} = 50\%; \beta = -1.67, Z = -2.08, p < .05$). Receiving $150 three years from now is a higher-desirability, lower-feasibility option, while receiving $100 now is a lower-desirability, higher-feasibility option. Prior research has proposed and demonstrated that the differences between feasibility and desirability correspond to differences between process and outcome (Zhao et al. 2007). Because incremental theorists are process focused, they pay more attention to feasibility information. Entity theorists are outcome focused and thus pay more attention to desirability information. Therefore, compared with entity theorists, incremental theorists were less likely to choose $150 three year from now, a higher-desirability, lower-feasibility option. However, when the points were present, no difference occurred between entity theorists and incremental theorists in their choice ($M_{IT-points} = 53\%, M_{ET-points} = 42\%; \beta = .45, Z = .65, p > .51$).

Discussion

The results from study 1 show that implicit theories can influence consumers’ susceptibility to the presence or absence of reward points. Specifically, as expected, participants presented with an incremental theory manipulation were more likely to choose an option with
$150 three years later in the points condition than in the no-points condition. In contrast, the choice of participants exposed to the entity theory orientation did not differ by the presence or absence of reward points. In other words, they exhibited no reliance on the reward points in their decision making.

Study 2 used a different choice task to accomplish two objectives. First, to test the robustness of our findings, we measured consumers’ chronic implicit theories (Dweck et al. 1995a) using a scale. Second, study 2 tested whether the findings obtained in study 1 could be bounded by certain circumstances.

**STUDY 2**

Several investigations show that incremental theorists tend to be process focused while entity theorists tend to be outcome focused (Butler 2000; Jain et al. 2009; Miller et al. 2007; Molden et al. 2006). This distinction between process and outcome focus is of particular relevance to a medium-based rewards program because the medium is the process and the ultimate reward is the outcome.

Theory Confirmation versus Theory Violation

A person who receives information that confirms his or her implicit theory is likely to process the information in less depth and scrutinize it less because it reinforces his or her a priori theory (Plaks, Grant, and Dweck 2005). Therefore, under conditions of theory confirmation, we expect that both entity and incremental theorists are likely to think and make choices consistent with hypothesis 1. In particular, in the presence (vs. absence) of reward points, incremental theorists should show greater susceptibility to reward points, while entity theorists should not
exhibit such difference in choice when reward points are present or absent. Therefore:

**H2a:** When primed with theory confirmation, incremental theorists will be more likely to choose the option that garners more points when the points are present versus absent. Entity theorists will show no differences in such choice when the points are present versus absent.

The knowledge that someone fails to acquire new skills violates incremental theorists’ beliefs that intelligence is dynamic and subject to influence by the context. In contrast, the information that someone can change her or his performance challenges entity theorists’ beliefs. When their implicit theories are violated, people choose either to selectively attend to the information consistent with their theory when their cognitive resources are depleted or to scrutinize inconsistent information when they have plenty of cognitive resources (Plaks et al. 2005). Specifically, when their cognitive resources are depleted, entity theorists take an avoidance strategy toward the stereotype-inconsistent information, which violates their beliefs in fixedness, whereas incremental theorists take an avoidance strategy toward stereotype-consistent information, which violates their beliefs in changeability. In contrast, when they have plentiful cognitive resources, both entity and incremental theorists take an approach strategy toward theory-violation information. Entity theorists pay more attention to stereotype-consistent than stereotype-inconsistent information. A potential explanation for this tendency is that they tend to use traits that are consistent over time to interpret people’s behavior. In contrast, incremental theorists allocate more attention to stereotype-inconsistent information than stereotype-consistent information. They do so possibly because they want to understand why people behave in one way and why they behave in another way by scrutinizing inconsistent information (Plaks et al. 2001).
Consistent with this argument, Jain et al. (2009) find that a theory violation causes incremental theorists to be insensitive to the advertising frame and, in contrast, causes entity theorists to evaluate approach-framed advertising more favorably. Similarly, Yorkston, Nunes, and Matta (2010) show that under theory violation, incremental theorists have the same response to brand extension activity as entity theorists. Building on previous work on theory violation, we expected that when a theory was violated, our expectations under hypothesis 2a would be reversed. Specifically, we posited that when entity theorists were exposed to an incremental theory scenario, they would pay more attention to the process than to the outcome. Therefore, they would be more likely to choose the option associated with more points when a medium was present. In contrast, we predicted that exposure to entity theory scenarios would induce incremental theorists to become insensitive to points. In short, under theory violation, entity theorists would be susceptible to points while incremental theorists would not.

**H2b:** When primed with theory violation, incremental theorists will show no differences in their choice when the points are present versus absent. Entity theorists will be more likely to choose the option that garners more points when the points are present versus absent.

Hypotheses 2a and 2b jointly hypothesize a three-way interaction among medium, implicit theory, and theory consistency.

Method

*Participants and Design.* Two hundred ninety-eight undergraduate students completed an online study featuring a 2 (implicit theory: entity vs. incremental) × 2 (medium: no points vs. 60/100 points) × 2 (theory consistency: violation vs. confirmation) design for course credit.
Procedure. Cover instructions stated that the purpose of the study was to understand consumers’ travel preferences. Following these instructions, we measured participants’ implicit theories of individual intelligence, adapted from Dweck et al. (1995a). Participants indicated their agreement or disagreement with three statements (“You have a certain amount of intelligence, and you really can't do much to change it”; “Your intelligence is something about you that you can't change very much”; and “You can learn new things, but you can't really change your basic intelligence”), anchored by “strongly agree” (1) and “strongly disagree” (6).

Next, we manipulated implicit theory consistency. Extant research reveals that entity theorists endorse stereotypes of ethnic groups more strongly than incremental theorists (Levy et al. 1998; Rydell et al. 2007). Levy et al. (1998) find that entity theorists ascribed African American stereotypes to dispositional factors while incremental theorists attributed such stereotypes to situational influences. We manipulated implicit theory consistency by exposing participants to scenarios about the test performance of an incoming college freshman named Brad who was good at math but not English (see Plaks et al. 2005). Brad’s interests and grades corresponded to a person strong in math. Participants were provided with details that Brad “hopes to join a club that builds solar-powered car. He enjoys watching Star Trek. He received a C in his European History Class.” Participants then read that “the university requires that all incoming freshmen with subpar backgrounds in humanities undergo an intensive, year-long course in English language and expository writing. Brad looks forward to the course and plans to try his best.” Next, participants read that Brad completed the course, and “as part of his degree, he is required to take a humanities and arts proficiency test in which his expository writing and English Language skills are tested.” Respondents were then led to believe that either “Brad does
very, very well on this test” or “Brad does very, very poorly on this test.” We varied theory consistency on the basis of the belief that entity theorists would think more stereotypically (a student good at math is not likely to be good at English) while incremental theorists would be less reliant on stereotypes (a student can be good at math as well as English). Accordingly, entity (incremental) theorists reading that the math person did well on the English test were in the theory violation (confirmation) condition. Similarly, entity (incremental) theorists reading that the math person did poorly on the English test were in the theory confirmation (violation) condition. We tested this theory consistency manipulation by asking participants to rate their agreement with three statements (“I think Brad’s performance on the test is consistent with my expectations,” “I am taken aback by Brad’s performance in the test” [reversed scored], and “Brad’s performance on the test really violates my belief in people’s ability to modify their strengths and weaknesses” [reversed scored]) on a six-point scale (1 = strongly agree, 6 = strongly disagree).

We adapted the choice task from Hsee et al. (2003). Specifically, in Hsee et al.’s study 3, participants who chose to take a 20-minute survey were rewarded with 60 points. With 60 points, they could receive one pound of Snickers bars. Participants who chose to complete a 25-minute survey were rewarded with 100 points. With 100 points, they could choose between one pound of Snickers bars and one pound of Almond Joy bars. Hsee et al. found that participants preferred Snickers bars to Almond Joy bars and thus giving the choice of Almond Joy bars did not have much advantage. We developed a choice task in a different product category—namely, an airline ticket to a desired vacation destination. To customize rewards for each participant, before proceeding to the choice task, participants were asked to indicate their most and second-most desired vacation destinations in the United States.
In the choice task, participants were asked to imagine that they would need to complete one of two tasks in a future school activity. In the no-points condition, task 1 would take six hours, for which they would be rewarded with an airline ticket to their most desired vacation destination. Task 2 would take seven hours, for which they would be rewarded with an airline ticket to their most or second-most desired vacation city. In the points condition, points were associated with the options. If participants chose task 1, they could receive 60 points. If they chose task 2, they could receive 100 points. If they had 50–99 points, they could receive an airline ticket to their most desired vacation destination (task 1); if they had 100 points, they could choose between an airline ticket for their most or second-most desired vacation cities (task 2). Participants were further informed that points were not transferable and that the two tasks were equally important. Using the pipe text function on online survey software, we took participants’ responses to “which cities in the United States are your most and second-most desired vacation destinations” and added them to the choice question. It is important to note that we customized the reward outcomes for each participant according to his or her preference rather than presenting the same rewards for all participants.

Results

*Manipulation Checks.* We averaged participants’ responses to the theory violation measure to form a theory violation index (α = .73). Following convention (e.g., Jain et al. 2009; Yorkston et al. 2010), we classified participants as entity or incremental theorists on the basis of a median split (M_E = 2.71, M_I = 5.16; t = −31.14, p < .001). As expected, a one-way ANOVA on this measure revealed a significant main effect of theory consistency (F(1, 255) = 8.19, p < .01), such that participants in the theory-inconsistent condition expressed that Brad’s
performance violated their theories to a greater extent than those in the theory-confirmation condition ($M_{\text{inconsistent}} = 3.14, M_{\text{consistent}} = 2.80$). A 2 (medium) $\times$ 2 (theory consistency) $\times$ 2 (implicit theory) ANOVA on this measure revealed a marginally significant main effect of medium ($M_{\text{no points}} = 3.08, M_{\text{points}} = 2.87; F(1, 249) = 3.08, p = .08$), a significant implicit theory $\times$ theory consistency interaction ($M_{\text{ET–inconsistent}} = 2.92, M_{\text{ET–consistent}} = 3.15; M_{\text{IT–inconsistent}} = 3.37, M_{\text{IT–consistent}} = 2.46; F(1, 249) = 24.45, p < .001$), and, more important, a significant main effect of theory consistency ($M_{\text{inconsistent}} = 3.15, M_{\text{consistent}} = 2.80; F(1, 249) = 8.99, p < .01$), indicating that the manipulation was successful.

**Implicit Theory Orientation.** We averaged the three items of the implicit theory to form an implicit theory index ($\alpha = .92$). Lower scores reflect a greater entity theory orientation.

**Choice Share.** Participants were asked what their most and second-most preferred vacation cities were. As a result, giving them the choice of their second-most preferred vacation city did not have much advantage (Hsee et al. 2003). We coded the choice data as binary (1 = task 2, 0 = task 1). We also treated the predictor variables of the presence of a medium (1 = points, 0 = no points), theory consistency (1 = theory violation, 0 = theory confirmation), and implicit theory (1 = incremental theorists, 0 = entity theorists) as binary. A logistic regression revealed a marginally significant main effect of theory consistency ($\beta = -1.01, Z = -1.84, p < .07$), suggesting that participants in the theory-confirmation condition (vs. theory violation) were more likely to choose a long task. The medium $\times$ theory consistency interaction was significant ($\beta = 1.58, Z = 2.10, p < .05$), indicating that participants in the theory-violation condition were more susceptible to points than those in the theory-confirmation condition. The implicit theory $\times$
theory consistency interaction was marginally significant (β = 1.33, Z = 1.79, p < .08). More important, a predicted three-way interaction involving the medium, implicit theory, and theory consistency emerged (β = –3.04, Z = –2.90, p < .01). In support of hypothesis 2a, further analyses confirmed that under theory confirmation, incremental theorists were more likely to choose the long task when the points were present (vs. absent) ($M_{\text{IT-no points}} = 39\%, M_{\text{IT-points}} = 68\%; \beta = 1.19, Z = 2.32, p < .05$). In contrast, entity theorists were insensitive to the presence of the points ($M_{\text{ET-no points}} = 45\%, M_{\text{ET-points}} = 54\%; \beta = .38, Z = .75, p > .45$). Under theory violation, entity theorists were more likely to choose the long task when the points were present (vs. absent) ($M_{\text{ET-no points}} = 23\%, M_{\text{ET-points}} = 68\%; \beta = 1.96, Z = 3.52, p < .001$). In contrast, incremental theorists were insensitive to the points under theory violation ($M_{\text{IT-no points}} = 47\%, M_{\text{IT-points}} = 40\%; \beta = -.27, Z = -.52, p > .60$; see table 1); thus, hypothesis 2b was supported.  

---Insert Table 1 about here---

Discussion

Study 2 provides evidence in support of hypotheses 2a and 2b. When presented with information that confirmed their theory, incremental theorists were more likely to choose a long task in the points condition than in the no-points condition, while entity theorists’ likelihood of choosing a long task was invariant across the points and no-points conditions. However, when

---We dummy-coded the presence of reward points (1 = points, 0 = no points) and Brad’s performance as a proxy of implicit theory variables (1 = incremental theory [good performance], 0 = entity theory [bad performance]) and regressed medium, implicit theory, and their interaction on the choice data (1 = task 2, 0 = task 1). A logistic regression revealed a significant two-way interaction (β = 1.20, Z = 2.48, p < .05) and a main effect of implicit theory (β = –.67, Z = –1.95, p = .05), such that entity theorists, who read that Brad did poorly on the test, were more likely to choose the long task than incremental theorists, who read that Brad did well on the test. In support of hypothesis 1, contrast analysis further indicated that incremental theorists had a higher probability of choosing the long task when the points were present versus absent ($M_{\text{IT-no points}} = 28\%, M_{\text{IT-points}} = 65\%; \beta = 1.53, Z = 4.39, p < .0001$) whereas entity theorists’ probability of choosing the long task did not differ by the presence or absence of the points ($M_{\text{ET-no points}} = 44\%, M_{\text{ET-points}} = 52\%; \beta = .33, Z = 1.01, p > .31$).---
presented with information that violated their theory, entity theorists exhibited sensitivity to the points, while incremental theorists become insensitive to them.

To test the robustness of study 2’s findings, in study 3 we measured participants’ implicit theories for a different choice task. Study 3 also tested how different marketing communications related to credit card reward programs can lead to different effects for entity and incremental theorists. A third purpose of study 3 was to examine process and outcome explanations for the two theorists’ different choices by directly manipulating the focus. To manipulate the process or outcome focus for the same reward program, in study 3 we examined only the situation in which points were present.

**STUDY 3**

Prior research has found that incremental theory employees tend to focus on learning goals and believe that they can improve their abilities if they can overcome challenges. Imagining how they would feel after mentally imitating the behavior of a challenging role model (i.e., outcome simulation) does not increase their intention to follow the role model compared with engaging in no mental simulation. Incremental theory employees are certain that they can follow the behavior of the role model regardless of whether they are engaged in process or outcome simulation (Wentzel, Henkel, and Tomczak 2010). Theoretically, Tabernero and Wood (1999) find that perceived efficacy mediates the relationship between implicit theories and performance and that incremental theorists have higher self-efficacy than entity theorists. Similarly, Pollack, Burnette, and Hoyt (2012) find that those with an incremental theory of entrepreneurship show higher self-efficacy when faced with a threat to their entrepreneurial ability than those with an entity theory. People with an incremental theory of body weight
indicate that they will be more likely to succeed in their future dieting endeavor after facing a dieting setback than those with an entity theory (Burnette 2010).

From the aforementioned findings and the medium-as-process and reward-as-outcome perspective, we predicted that incremental theorists would initially pay attention to process, so their choice would not differ across process-focused and no-focus ads. Incremental theorists would be more confident that they could earn the final reward, regardless of the kind of advertising they received, so their choice would not differ across process-focused and outcome-focused ads. Therefore,

**H3a:** Incremental theorists will show no difference in their choice of the reward program that garners more points when they view the process-focused ad versus the no-focus ad.

**H3b:** Incremental theorists will show no difference in their choice of the reward program that garners more points when they view the outcome-focused ad versus the process-focused ad.

Entity theorists may feel more confident that they will succeed by mentally simulating the steps they need to go through before reaching a desired end state (i.e., process simulation), and thus they may have a greater intention to imitate the behavior of a challenging role model than when they do not engage in mental simulation (Wentzel et al. 2010). In contrast, imagining how they might feel after imitating the behavior of the role model does not help entity theorists reduce their concerns with appearing incompetent, and thus outcome simulation does not increase their intention to follow the role model (Wentzel et al. 2010). Thus, entity theorists’ confidence will be greater when they are exposed to a process-focused ad that strengthens their self-efficacy. Entity theorists tend to focus primarily on the final reward. Building on the
previous work, we expected that when entity theorists viewed a process-focused ad, their attention would shift from outcome to process and their self-efficacy would strengthen, resulting in a greater tendency to choose the reward program associated with higher points than when they viewed the no-focus ad. However, we expected that by focusing on the final reward, they would be less likely to choose the reward program associated with higher points when they viewed the outcome-focused ad than the process-focused ad.

**H4a:** Entity theorists will be more likely to choose the reward program that garners more points when they view the process-focused ad versus the no-focus ad.

**H4b:** Entity theorists will be less likely to choose the reward program that garners more points when they view the outcome-focused ad versus the process-focused ad.

**Method**

*Participants, Design, and Procedure.* One hundred twenty-two participants recruited from an online panel completed two purportedly unrelated studies. Participants were randomly assigned to one of the three focus conditions: no focus, process focus, and outcome focus. In the first part, we measured participants’ implicit theories. In the second part, participants read a credit card ad that manipulated focus; then, they completed relevant measures, including their choice between two credit card reward programs.

*Implicit Theories.* Participants first responded to the implicit theory of the economic marketplace scale on a six-point scale (1 = strongly disagree, 6 = strongly agree; items were reverse scored, with lower scores reflecting a greater entity theory orientation).
Focus. Participants then read the following instruction: “Chase, a financial institution, is planning to launch a new credit card RANK. On the next page, you will read its advertising introducing two reward programs associated with the RANK credit card. This study requires you to choose between these two reward programs.” We designed three different ads: One had no focus, one was process focused, and one was outcome focused. Each ad had the same headline (“Introducing RANK Credit Card from Chase”) and contained a header, a footer, and information about two reward programs. Participants in all conditions read the following information about the programs: Under program A, “you will earn 6 points for every dollar you charge on Chase RANK credit card. After you accumulate 60,000 points, you will earn a 3-day/2-night vacation package for two in Hawaii, including airline tickets and hotel accommodations”; under program B, “you will earn 10 points for every dollar you charge on Chase RANK credit card. After you accumulate 100,000 points, you will earn a 3-day/2-night vacation package for two in Hawaii or Miami, including airline tickets and hotel accommodations.” Focus was manipulated in both the ad header and footer. In the process-focused ad, the header stated, “The Card that Earns you Reward Points,” and the footer claimed, “The process cannot be easier: Simply swipe your card to earn reward points! Sign up today and start using your card to earn reward points!” In the outcome-focused ad, the header and footer respectively said, “The Card that Earns you a Vacation Package” and “You can’t beat the reward for using this credit card: Awesome vacation package awaits you! Sign up today and start using your card to earn a vacation package!” In the no-focus condition, no text appeared in the header and footer (see appendix C).

We pretested this focus manipulation by asking participants (N = 285) to rate which aspect the credit card ad focused on more—points or the vacation package—on a seven-point
scale (1 = the ad focused mostly on points, 4 = the ad focused equally on points and the vacation package, 7 = the ad focused mostly on the vacation package). The manipulation check for focus revealed a main effect of advertising type ($F(2, 282) = 2.93, p = .055$). As expected, participants who viewed the process-focused ad reported that the ad focused more on the points ($M_{\text{process\_focus}} = 3.72$) than those who viewed the outcome-focused ad ($M_{\text{outcome\_focus}} = 4.20; p < .05$). The no-focus condition served as a control, and as expected, there was no difference between the no-focus and outcome-focused ads ($M_{\text{outcome\_focus}} = 4.20, M_{\text{no\_focus}} = 3.93; p > .16$) or between no-focus and process-focused ads ($M_{\text{process\_focus}} = 3.72, M_{\text{no\_focus}} = 3.93; p > .31$). We also created two dummies to represent three different types of foci with process focus as a reference category. For dummy 1, we coded the no-focus condition as 1 and the outcome-focus and process-focus conditions as 0. For dummy 2, we coded the outcome focus condition as 1 and the no-focus and process-focus conditions as 0. In addition, we created two interactions based on two dummies and implicit theory. Because implicit theory is a continuous variable, following the approach Aiken and West (1991) recommend, we mean-centered the continuous implicit theory measure ($\alpha = .92$) and used a regression model with the manipulation check for focus as the dependent variable and dummy 1, dummy 2, implicit theory, and their interactions as the independent variables. As hypothesized, a regression analysis revealed a significant simple effect of dummy 2 (i.e., process focus vs. outcome focus), such that process focus was associated with a greater focus on the points than outcome focus ($\beta = .48, t(279) = 2.37, p < .05$). No other effects were significant, suggesting that the manipulation was successful.

Choice Share. Participants were asked to choose immediately after they read the credit card ad by responding to the choice measure (“Which one of the reward programs would you
prefer to join?” 1 = program B, 0 = program A). To access the preference for Hawaii and Miami as a vacation destination, we pretested this preference by asking participants (N = 15) to indicate whether they liked Hawaii or Miami more as a vacation destination. The pretest results indicated that participants significantly preferred Hawaii (93.33%) to Miami (χ²(1) = 11.27, p = .001). To estimate the relative desirability of rewards A and B, we conducted a separate pretest by asking participants (N = 37) to rate the perceived desirability of the vacation package associated with program A and the vacation package associated with program B on a scale anchored by “not desirable at all” (0) and “very desirable” (100). The mean ratio of desirability of a vacation package in Hawaii or Miami to a vacation package in Hawaii was 0.97, in support of our prediction that the reward associated with program B is not more desirable than that associated with program A. Finally, a regression analysis indicated that the relative desirability of vacation packages did not differ by implicit theory (β = .02, t(35) = .61, p > .54).

Confounding Checks. Participants responded to the question, “How does the economic marketplace at present look?” on seven-point scales anchored by “it looks bad/it looks good,” “it looks negative/it looks positive,” and “it looks weak/it looks strong” (α = .94). They further indicated their involvement (“I found the choice task interesting,” “I was involved in the choice task,” “I was motivated to make the choice,” and “I read the choice information carefully”; 1 = strongly disagree, 7 = strongly agree; α = .85). Furthermore, we assessed participants’ perceptions of the Chase brand on seven-point scales anchored by “bad/good,” “not likable/likable,” “unfavorable/favorable,” and “unattractive/attractive” (α = .97). Participants also indicated whether they were current credit card users in general and whether they were Chase credit card users in particular. Last, they indicated how many credit cards they currently
owned. None of these measures differed across conditions ($ps > .14$), and thus we do not discuss them further.

Results

The criterion variable was a binary choice of program A (coded as 0) or program B (coded as 1), which garnered more points. Because the focus factor had three levels, we created two dummy variables with process focus as a reference category. For dummy 1, we coded the no-focus condition as 1 and the outcome-focus and process-focus conditions as 0. For dummy 2, we coded the outcome-focus condition as 1 and the no-focus and process-focus conditions as 0. We also created two interactions based on two dummies and implicit theory. Following Aiken and West (1991) and Hayes (2013), we mean-centered the continuous implicit theory measure ($\alpha = .89$) and used a logistic regression model with choice of the program B option as the dependent variable and focus dummy 1, focus dummy 2, implicit theory, and their interactions as the independent variables. A logistic regression revealed a marginally significant simple effect of dummy 1 (i.e., process focus vs. no focus), such that process focus was associated with greater choice of program B than no focus ($\beta = -.92, Z = -1.85, p = .07$) and a significant interaction between implicit theory and focus dummy 2 (i.e., process focus vs. outcome focus) ($\beta = 1.10, Z = 2.10, p < .05$). In contrast, the interaction between implicit theory and focus dummy 1 (i.e., process focus vs. no focus) was nonsignificant ($\beta = .70, Z = 1.35, p > .17$). To examine the interactions further, we conducted analyses to examine one standard deviation above and below the mean of implicit theory. In support of hypothesis 3a, the analysis revealed that for incremental theorists (1 SD above the mean), no significant difference occurred in the probability of choosing program B when the participants viewed the process-focused and no-focus ads
(M\textsubscript{process\_focus} = 60\%, M\textsubscript{no\_focus} = 54\%; \beta = -.22, Z = -.32, p > .75). Consistent with hypothesis 3b, incremental theorists were equally likely to choose program B when they viewed the outcome-focused ad as when they viewed the process-focused ad (M\textsubscript{process\_focus} = 60\%, M\textsubscript{outcome\_focus} = 79\%; \beta = .92, Z = 1.19, p > .23). In addition, consistent with hypothesis 4a, entity theorists (1 SD below the mean) had a higher probability of choosing program B when viewing the process-focused ad than when viewing the no-focus ad (M\textsubscript{process\_focus} = 63\%, M\textsubscript{no\_focus} = 25\%; \beta = -1.62, Z = -2.16, p < .05). Entity theorists also had a higher probability of choosing program B when they viewed the process-focused ad than when they viewed the outcome-focused ad (M\textsubscript{process\_focus} = 63\%, M\textsubscript{outcome\_focus} = 32\%; \beta = -1.27, Z = -2.01, p < .05); thus, hypothesis 4b is supported (see figure 2).

—Insert Figure 2 about here—

The implicit theory of the economic marketplace was uncorrelated with the current economic market outlook (r = -.04, p > .66), providing greater support for the contention that the implicit theory of the economic marketplace is distinct from the current economic market situation and that people hold implicit theories regarding market stability. A logistic regression, controlling for the current economic marketplace situation, revealed a marginally significant simple effect of focus dummy 1 (i.e., process focus vs. no focus) (\beta = -.92, Z = -1.84, p = .07) and a significant interaction between implicit theory and focus dummy 2 (i.e., process focus vs. outcome focus) (\beta = 1.10, Z = 2.10, p < .05). The current economy market situation did not have a significant effect (p > .99). None of the other effects were significant.

Discussion

Study 3 provides evidence in support of hypotheses 3a, 3b, 4a, and 4b. We found that
different marketing message foci generate different effects for entity and incremental theorists. Specifically, incremental theorists had a higher probability of choosing the reward program associated with more points regardless of the type of ads they read, while entity theorists had a higher probability of choosing the reward program associated with higher points when they viewed the points-focused ad than when they viewed the no-focus and reward-focused ads. In accordance with our expectations, when viewing a points-focused ad, entity theorists became sensitive to points and made choices as if their theory had been replaced. However, incremental theorists remained sensitive to points even when viewing an outcome-focused ad because they were more confident that they could earn the final reward.

**GENERAL DISCUSSION**

This investigation identifies a relationship between implicit theory and medium sensitivity. Incremental theorists make choices based on the media unless their theory is violated. In contrast, entity theorists rely less on the media unless they are exposed to information that violates their theory or to information that focuses on process. We obtained converging evidence of these findings across different choice tasks with varying degrees and dimensions of perceived effort and when we situationally activated (study 1) and measured (studies 2 and 3) the implicit theories.

Theoretical Implications

Although extant work has identified certain boundary conditions of the medium maximization effect, thus far researchers have focused on stimulus characteristics as moderators, such as the type of medium (e.g., purchases or colored tickets; Hsee et al. 2003; Nunes and
Drèze 2006) or the ratio of a medium (Hsee et al. 2003). The current research extends the literature on effort, medium, and reward by focusing on consumers’ implicit theories as a new boundary condition. This research also documents the underlying mechanism of the relationship between the medium maximization effect and consumers’ implicit theories by manipulating the differential focus advertising accords to the medium or the outcome.

In addition, our examination extends the literature on implicit theory in at least two respects. First, we add to the small but growing body of literature in consumer behavior that shows the moderating influence of consumers’ implicit theories on several well-documented phenomena hitherto believed to be fairly robust (Jain et al. 2009; Mukhopadhyay and Yeung 2010). Thus, our research is the first to show a consumer-level moderator of the medium maximization effect. Second, we introduce a new type of implicit theory to the literature in the domain of the economic marketplace.

Managerial Implications

This research provides marketing managers with a deeper understanding of ways to enhance the effectiveness of reward programs. Managers have several tools to segment consumers according to chronic traits; the notion of implicit theories adds to this toolkit by sensitizing managers to the possibility that situationally induced mind-sets and implicit theories can influence consumers’ reliance on reward points (vs. the reward itself).

The effectiveness of reward programs is dependent on both message features and individual characteristics. The type of focus in marketing communications and consumers’ implicit theories jointly determine consumers’ reliance on reward points. Our findings should encourage managers to consider consumers’ implicit theories when designing reward programs
and customizing marketing messages. As evidenced in study 3, communication to incremental theorists, who value points, can highlight either points- or reward-related information. Conversely, messages targeted at entity theorists, who deemphasize points, should focus more on points-related information, which can strengthen their susceptibility to the points. Importantly, study 2 indicates that one way to shift focus from points to outcomes or from outcomes to points is to violate the implicit theory held by the message recipient. This research specifically suggests that reinforcing an incremental theory and violating an entity theory can strengthen consumers’ susceptibility to reward points, which in turn can enhance the overall effectiveness of reward programs.

Consumers exhibit a reliance on a medium in both the real and the virtual worlds. This research carries the potential not only for better reward program design but also for superior game design. FarmVille, a virtual game developed by Zynga, has been a popular application on Facebook since its debut in June 2009. More than 60 million active users play this game (Efrati 2010). Players can earn virtual currency by raising livestock and by planting, growing, and harvesting virtual crops. To earn virtual currency faster, they can pay real money with credit cards or engage in activities, such as subscribing to Netflix, which also allow them to purchase more seeds and other virtual goods. The virtual currency can only be exchanged for specific merchandise in the virtual world. It functions like frequent-flier miles, which also can only be exchanged for specific merchandise determined by the reward system. This study suggests that the players who endorse an incremental theory may be more focused on earning virtual currency faster and thus may be more willing to trade real cash for virtual cash. This possibility could make these players the primary revenue generators. Game designers should identify and understand these players and customize communication messages delivered to them to enhance
user engagement and loyalty and thus boost sales. In contrast, players who hold an entity theory may undervalue collecting virtual currency. Their worldview may render paying real cash for virtual money less worthwhile, suggesting that violating the implicit theories of such players (e.g., through an online message) may cause a change in their focus from real cash to virtual money.

Future Research Directions

Previous research has documented the advantage of holding an incremental theory (vs. entity theory), such as persistence in the face of academic challenges (Dweck 2000) and weight-loss success in the face of dieting setbacks (Burnette 2010). When a trade-off between process and outcome emerges, focusing excessively on the process may hinder the quality of incremental theorists’ decision. Specifically, our research shows that incremental theorists are more susceptible to points regardless of whether more points can lead to a better outcome. Further research should investigate whether incremental theorists are more susceptible (than entity theorists) to other context effects, such as the contrast effect or status quo bias.

A worthwhile question for further research would be to examine whether other consumer-level characteristics, such as long-term orientation (Hofstede 2001; Sharma 2010), elicit similar effects on consumer engagement with loyalty programs. Long-term-oriented people resist immediate pleasure to attain future rewards, while short-term-oriented people pursue immediate pleasure rather than wait for long-term benefits (Hofstede 2001; Sharma 2010). Research has also argued that long-term orientation with a focus on dynamic thinking, hard work, and frugality underlies the economic success of Taiwan and other growing Asian countries (Franke, Hofstede, and Bond 1991). Given its importance and relevance to the economic market, research should
examine the role of long-term orientation and its interaction with the implicit theory of the economic marketplace in consumer engagement with loyalty programs and job incentive systems.

Further investigations could also examine how implicit theories and other loyalty program elements, such as to-date versus to-go frames (Koo and Fishbach 2008), jointly influence consumers’ engagement with loyalty programs. For example, entity theorists may be more engaged in the reward program if they focus on what has been accomplished (to-date information) because the information signals sufficient progress (Koo and Fishbach 2008), which resonates with their performance goals. Incremental theorists may be more motivated when the program focuses on what has yet to be accomplished to reach the goal (to-go information) because the information signals that there are opportunities to make progress, which resonates with their learning and self-improvement goals.

We identified, developed, tested, and documented the implicit theory of the economic marketplace and its consequences specific to marketers’ reward programs. We also offered evidence showing that it is independent of the current economic market situation. Research could use the novel implicit theory to motivate tests of a host of important effects in the domain of financial decision making; for example, does a belief in the fixedness or changeability of the economic marketplace influence consumers’ savings and investment behaviors? Insights stemming from addressing this question could lead to policy implications with potentially important consequences.
ESSAY 2: DESIRABILITY OR FEASIBILITY? THE ROLE OF MAXIMIZING VERSUS SATISFICING ORIENTATIONS IN CONSUMER EVALUATIONS

In one of its 2010 Super Bowl commercials, Hyundai claimed that the 2011 Hyundai Sonata “has better paint quality than Mercedes CLS550.” In another 2010 Super Bowl commercial, Hyundai claimed that it offered the best warranty (“10-year/100,000-mile warranty”). Paint quality is a desirability attribute, and warranty is a feasibility attribute. Do consumers with different characteristics care about different car attributes and respond to these commercials differently? This research investigates the effectiveness of superiority claim advertising that highlights these two types of attributes. In addition, it examines one consumer-level characteristic—a maximizing versus a satisficing orientation (Schwartz et al. 2002)—and one message-related factor—message orientation (feasibility vs. desirability) (Liberman and Trope 1998). Maximizers pursue the “best” option, and satisficers pursue a “good enough” option (Schwartz et al. 2002). Feasibility is the ease or difficulty of obtaining the outcome, while desirability is the value of the outcome (Liberman and Trope 1998). Several studies suggest that psychological distance, such as temporal, social, and spatial distance, influences consumers’ preferences for feasible or desirable products (Liberman and Trope 1998; Trope and Liberman 2003; Trope, Liberman, and Wakslak 2007). However, they do not indicate how different types of consumers respond to different types of brand messages that emphasize feasibility versus desirability. This research examines how consumers’ maximizing versus satisficing orientations and message orientation jointly influence how they process information and form evaluations.

In this research, we propose that maximizers place relatively more emphasis on outcome benefits and thus are outcome focused, whereas satisficers focus more on the cost of the search process and thus are process focused. We demonstrate that compared with satisficers,
maximizers are more likely to prefer higher-desirability, lower-feasibility options to lower-desirability, higher-feasibility options. Maximizers are persuaded more by a maximal comparative claim that highlights desirability attributes than by one that highlights feasibility attributes. In contrast, although satisficers place relatively more emphasis on feasibility-related information, they are less interested in pursuing the “best” option, so a maximal comparative claim in which an advertised brand claims superiority to all other brands is less influential for them. Thus, satisficers’ evaluations should not differ across feasibility- and desirability-oriented maximal comparative claims.

This paper reflects two objectives. First, we examine the relationship between consumers’ maximizing versus satisficing orientation and their preference for alternatives that vary in feasibility versus desirability. Second, we demonstrate that maximizers express greater purchase intentions when maximal comparative claim highlights match their maximizing orientation, while satisficers express similar purchase intentions regardless of the orientation of maximal comparative claims.

Across three studies, we measure participants’ maximizing versus satisficing orientations using the scale that Schwartz et al. (2002) developed. In each study, participants evaluate several choice scenarios involving choices with varying levels of desirability and feasibility. In the gambling scenario used in study 1, desirability refers to the benefit of winning and feasibility refers to the risk of gambling. In the hiking scenario used in study 2, desirability varies with the beauty of the scenery in the park and feasibility varies by the park’s distance from home and the availability of parking. Study 3 uses a laptop scenario in which desirability refers to the product’s appearance, processing speed, and display quality and feasibility refers to its weight, price, and availability.
THEORETICAL BACKGROUND

Maximizers versus Satisficers

In his Nobel prize–winning research, Simon (1955) argues that people have a bounded rationality as a result of their limited cognitive resources and the complexity of the environment. Consequently, they often “satisfice” rather than “maximize” when making decisions. Satisficing involves selecting the option that meets or exceeds a person’s standard and no longer searching after he or she finds this option. Schwartz et al. (2002) argue that Simon’s concept of satisficing can also be considered an individual difference and introduce a maximizing–satisficing scale to measure this “satisficing orientation.” Maximizers pursue the best outcome and are willing to sacrifice time and effort to search for more alternatives to achieve it (Dar-Nimrod et al. 2009). For example, Iyengar, Wells, and Schwartz (2006) find that college graduates with a maximizing orientation applied for more jobs and had higher starting salaries than those with a satisficing orientation. Schwartz et al. (2002) further posit that maximizers care more about the outcome of the decision because it may send a signal about their competence and intelligence. In contrast, satisficers restrict their information seeking, decline to spend extra resources, and settle for a good enough choice (Dar-Nimrod et al. 2009; Schwartz et al. 2002). Satisficers set a minimum standard and select the first option that meets that standard (Schwartz et al. 2002).

Research suggests that though maximizers achieve objectively better decision outcomes than satisficers, they experience more negative psychological consequences, such as feeling more regret and less happiness and satisfaction with their choices (Iyengar et al. 2006; Schwartz et al. 2002). Furthermore, if maximizers are given an opportunity to make a choice again, they are more likely to change their initial choice (Chowdhury et al. 2009). One explanation for this is
that satisficers are able to judge whether they have obtained a good enough option in absolute terms. However, maximizers have difficulty judging whether they have achieved the best outcome without engaging in comparison and thus they focus more on their relative position (Schwartz et al. 2002). Schwartz et al. (2002) developed scales to measure the frequency of social comparisons and product comparisons and found that a maximizing orientation is a predictor of engaging in social and product comparisons. Not surprisingly, maximizers are more likely to rely on others in their decision-making process (Parker, De Bruin, and Fischhoff 2007) and to discuss their choice with others (Lai 2011). Consumers are more likely to maximize when purchasing material goods and to satisfice when purchasing experiential goods because they tend to engage in more comparison for the former than the latter (Carter and Gilovich 2010).

People who are indecisive tend to be maximizers and use compensatory strategies in which they read and weigh the pros and cons of all options (Patalano, Juhasz, and Dicke 2010). Indecisive people are less willing to eliminate an option because they are afraid that they will lose valuable opportunities (Patalano et al. 2010). Decisive people tend to be satisficers who evaluate options on the basis of the most important criterion and adopt noncompensatory decision strategies in which they eliminate options that do not meet their criteria (Patalano et al. 2010). That is, if an option fails to meet their most important criterion, they stop reading about that option and eliminate it. Unlike satisficers, maximizers are willing to sacrifice time and effort to search for more options in their pursuit of the “best” option. Given that maximizers are interested in choosing the best, we propose that they pay more attention to outcome benefits than the process of identifying the best. Therefore, we identify them as outcome focused. In contrast, satisficers restrict their information search and choose the first option that meets or exceeds their standard rather than trying to find the best option. Thus, we propose that satisficers pay more
attention to the cost of searching, and we identify them as process focused. We discuss the difference between outcome- and process-focused thinking subsequently.

Feasibility versus Desirability

Feasibility is the ease or difficulty of obtaining an outcome, while desirability is the benefit of an outcome (Liberman and Trope 1998). Action identification theory proposes that an action can be described in one of two ways: feasibility or desirability. Feasibility refers to how an action is taken and the costs involved in the action. Desirability refers to why an action is taken and the benefits associated with it (Vallacher and Wegner 1987, 1989). For example, a hiker may consider a mountain backpacking trip desirable and fun, but it may not be feasible if he or she lacks the physical ability (Liu 2008). Conversely, a trip to a nearly park may be highly feasible but not much fun.

Construal level research examining how distance may affect abstract and concrete thinking has investigated choices involving feasibility and desirability. Temporal distance influences the way people mentally represent an action, and this, in turn, influences people’s choices (Dhar and Kim 2007; Liberman and Trope 1998; Trope and Liberman 2003), preferences for a small or large assortment (Goodman and Malkoc 2012), and responses to advertising (Martin, Gnoth, and Strong 2009). Regarding the effect of temporal distance on desirability and feasibility, research has shown that when deciding whether to attend a guest lecture, students care more about how convenient the timing is (feasibility) if the lecture is scheduled for the near future but care more about how interesting the lecture is (desirability) if it is scheduled for the distant future (Liberman and Trope 1998). Similar effects occur if distance is social rather than temporal (e.g., self vs. other). For example, when deciding whether to travel abroad for
themselves rather than for others, people recall more feasibility-related information, such as costs, safety, and transportation, than desirability-related information, such as scenery, exotic culture, and leisure (Lu, Xie, and Xu 2013).

Gambling involves both feasibility and desirability choices. The risks of gambling are similar to feasibility concerns, while gambling payoffs are similar to desirability (Liu 2008; Sagristano, Trope, and Liberman 2002). When a gamble’s payout is in the near future, people weigh the risk of the gamble more than the benefit of its payoff and prefer low-risk, low-payoff gambles. When the payout is in the distant future, they focus on the benefit of the payoff more than the risk of the gamble and prefer higher-risk, higher-payoff gambles (Sagristano et al. 2002).

Process versus Outcome

Mental simulation literature distinguishes two types of mental simulation: process-focused thinking and outcome-focused thinking. People who engage in process-focused thinking imagine the step-by-step process of achieving an end goal. Those who use outcome-focused thinking consider the desirable outcome after they reach an end goal (Taylor et al. 1998). Several studies have demonstrated that process-focused thinking has more advantages than outcome-focused thinking. For example, students who engaged in process-focused thinking spent more hours studying and received better grades on an exam than those who engaged in outcome-focused thinking (Taylor et al. 1998). In response to advertising, process-focused thinking enhances consumers’ planning process and behavioral intentions when an ad’s argument is strong. It makes consumers more discerning when they read ads (Escalas and Luce 2003, 2004) and reduces preference inconsistency over time (Zhao et al. 2007).
Prior research has proposed that the difference between feasibility and desirability corresponds to the difference between focusing on the process and focusing on the outcome. If so, process-focused thinking and outcome-focused thinking should change the relative focus on desirability and feasibility (Zhao et al. 2007). Engaging in outcome-focused thinking induces people to focus more on the end benefits and desirability aspects of an action (Thompson et al. 2009; Zhao et al. 2007). In contrast, those engaging in process-focused thinking place relatively more emphasis on the feasibility aspects of an action than the desirability aspects (Zhao et al. 2007).

In this research, we propose that maximizers, who pursue the “best” option, place relatively more emphasis on outcome benefits and tend to use outcome information to make decisions. In contrast, satisficers, who pursue a “good enough” option, focus more on the cost of the search process and place relatively more emphasis on process. With a risk-as-process and payoffs-as-outcome perspective, we hypothesize that in a decision involving a risky choice, a person with an increased maximizing orientation should have a greater preference for a higher-risk, higher-reward option. Furthermore, because feasibility corresponds to the costs, constraints, and process of attaining the outcome and desirability corresponds to the benefits of the outcome, we expect that people with a greater maximizing orientation have a greater preference for a higher-desirability, lower-feasibility option when making a decision with a desirability and feasibility trade-off. Stated formally,

**H1**: As people’s maximizing orientation increases, their preference for a higher-risk, higher-reward option increases when choosing among risky gambles.
**H2:** As people’s maximizing orientation increases, their preference for a higher-desirability, lower-feasibility option increases when choosing between it and a lower-desirability, higher-feasibility option.

**STUDY 1**

**Method**

*Participants, Design, and Procedure.* Eighty-two undergraduate students participated in the study for course credit. They read a gambling scenario, which was followed by relevant measures and checks. They concluded the session by responding to Schwartz et al.’s (2002) maximizing–satisficing scale.

*Choices.* After completing unrelated studies, participants read the following instructions: “In this study, you will be given a series of choices for which you have the opportunity to receive one of two options for each choice. Please read the choices carefully and indicate which options you would take. Since the options may be offered in future studies, we are interested in opinions from consumers like you.” Choice one was, “If you choose a 100% chance of winning $10, you win $10 for sure. If you choose a 50% chance of winning $2,000, you have a 50% chance of winning $2,000 and a 50% chance of winning $0. What do you want to do: win $10 for sure, or take a chance and maybe win $2,000 or $0?” (Aggarwal and McGill 2012; Kühberger, Schulte-Mecklenbeck, and Perner 1999). Participants took part in 17 trials, with the “sure” option increasing from $10 to $1,600. To control for the influence of the expected value, we varied the magnitude of the sure options for each trial but kept the probability and magnitude of the risky option fixed across all trials. We used certainty equivalence as the dependent variable, which is
the magnitude of the first sure option that a participant was willing to shift from choosing the risky option to the sure option.

Maximizing or Satisficing Orientation Measurement. After making their choices, participants responded to Schwartz et al.’s (2002) maximizing–satisficing scale, indicating their agreement/disagreement with 13 statements (e.g., “I’m a big fan of lists that attempt to rank things [the best movies, the best singers, the best athletes, the best novels, etc.]”; “I never settle for second best”; “No matter what I do, I have the highest standards for myself”; and “I often fantasize about living in ways that are quite different from my actual life”; see Appendix D for the complete scale). The seven-point scales were anchored by “strongly disagree” (1) and “strongly agree” (7). Higher scores indicate greater maximizing orientation, and lower scores reflect greater satisficing orientation ($\alpha = .73$).

Results

To test hypothesis 1, which predicts a positive association between having a maximizing orientation and preferring more risky options, we performed a regression with certainty equivalence as the dependent variable and the continuous maximizing–satisficing orientation as the independent variable. As expected, a maximizing orientation was a positive predictor of people wanting a higher certainty equivalence before choosing it over a risky gamble ($\beta = 132.47, t(80) = 1.93, p = .057$).
Discussion

The findings of study 1 support the prediction that as people’s maximizing orientation increases, their preference for a higher-risk, higher-reward option over a lower-risk, lower-reward option also increases. Alternatively, as people evidence more satisficing tendencies, they are more reluctant to choose riskier options. In developing hypothesis 1, we equated the probability of winning to feasibility and the amount that could be won to desirability (Sagristano et al. 2002). Thus, study 1 also supports the contention that maximizers care more about desirability than feasibility in their decision making.

STUDY 2

Study 2 is designed to test hypothesis 2, which states that when people make decisions with a desirability and feasibility trade-off, those with a greater maximizing orientation have a greater preference for a higher-desirability, lower-feasibility option. In this study, which uses a hiking trip scenario, desirability refers to the beauty of scenery in the park, and feasibility refers to the distance from home and the amount of parking available (Liu 2008).

Method

Participants, Design, and Procedure. Seventy-two undergraduate students participated in a two-part experiment. In the first part, participants read a hiking trip scenario, which was followed by relevant measures and manipulation checks. In the second part, they responded to the maximizing–satisficing scale (Schwartz et al. 2002).
Preference Measurement. Participants read, “We would like to know how you plan a hiking trip. Imagine that you are planning a one-day hiking trip and are choosing between two options. Park A has little scenery with many boulders and bushes, but it is 40 miles from home with plenty of parking. Park B has much scenery with many waterfalls and creeks, but it is 70 miles from home and has limited parking” (adapted from Liu 2008). Park A (B) is a low- (high-) desirability, high- (low-) feasibility option. Participants were asked to imagine that they were going on a hiking trip in each of the parks and to list their thoughts about the hiking trip in each of the parks. Next, they rated their relative preference between the two parks on a sliding scale (0 = strongly prefer to go on a hiking trip in park A, 50 = equal preference, 100 = strongly prefer to go on a hiking trip in park B). Finally, we measured participants’ maximizing–satisficing orientation using the same scale as in study 1 (Schwartz et al. 2002) (α = .76).

Manipulation and Other Checks. After participants indicated their preference for one of the parks, we checked the feasibility and desirability manipulations. For feasibility, participants indicated, “How much more accessible do you think park A is relative to park B?” anchored by “A is not much more accessible than B” (1) and “A is much more accessible than B” (7). For desirability, the scale included “How much more desirable in terms of scenery do you think park B is relative to park A?” anchored by “B is not much more desirable than A” (1) and “B is much more desirable than A” (7). As a potential moderating or confounding variable, participants also indicated how much they liked going on a hiking trip, anchored by “not at all” (1) and “very much” (7).
Results

Manipulation and Other Checks. All participants rated park A as more accessible than park B ($M_{des} = 5.44; t(71)_{diff_from_4} = 8.02, p < .001$) and park B as more desirable than park A ($M_{des} = 6.51; t(71)_{diff_from_4} = 25.95, p < .001$). As expected, participants perceived park A as having a lower-desirability, higher-feasibility option and park B as having a higher-desirability, lower-feasibility option. These judgments did not differ by maximizing or satisficing orientation ($p > .32$). Furthermore, maximizers and satisficers did not differ by how much they liked to hike ($p > .24$), and liking to hike did not moderate the effects of maximizing orientation ($p > .10$).

Preference. To test hypothesis 2’s prediction of a positive association between a person’s maximizing orientation and relative preference for desirability and feasibility attributes, we used a regression model with the continuous maximizing–satisficing orientation measure as the independent variable and preference as the dependent variable. The analysis revealed that people with a greater maximizing orientation had a greater preference for park B ($\beta = 8.01, t(70) = 3.12, p < .01$)—the higher-desirability, lower-feasibility option.

Discussion

Study 2’s results support hypothesis 2’s prediction that people who are more focused on maximization when making choices attend more to desirability than feasibility attributes. Thus, across two operationalizations of feasibility and desirability, the results show a clear relationship between a person’s maximizing–satisficing orientation, as measured with Schwartz’s (2002) scale, and his or her preference for a higher-desirability, lower-feasibility option. In study 3, we further test this relationship by examining how people respond to advertising that does or does
not match their maximizing or satisficing orientation in the way feasibility and desirability attribute information is presented. Here, we adapt the concept of regulatory fit to predict that a fit (misfit) between maximizing orientation and a focus on desirability (feasibility) attributes enhances (reduces) brand evaluations.

**STUDY 3**

Superiority Claim Advertising

Although virtually all advertising provides favorable information about the sponsor’s product, some advertising has the specific goal of promoting the superiority (i.e., “the best”) of the sponsor’s product on some or all attributes. Comparative advertising is often the method used to accomplish this goal. Comparative advertising refers to advertising that employs a comparison that either directly refers to a competitor by name (e.g., “better paint quality than Mercedes CLS550”) or avoids naming a competitor directly (e.g., “best in class”).

Several studies have examined factors that influence the effectiveness of comparative advertising, but the results have remained mixed as to whether comparative ads are more effective than noncomparative ads. For example, comparative ads garner greater attention than noncomparative ads (Dröge 1989; Pechmann and Esteban 1993). However, comparative advertising evokes counterargumentation and leads to poor message believability and brand attitudes (Jain, Buchanan, and Maheswaran 2000). Hsieh et al. (2011) propose a contingency model that identifies several moderators, including stimulus, situation, and individual factors, that affect the persuasiveness of comparative advertising. Comparative advertising can use either a maximal claim, in which an advertised brand is presented as superior to a comparison brand, or a minimal claim, in which an advertised brand is presented as similar to a comparison brand.
(Jain, Agrawal, and Maheswaran 2006). The question whether comparative or noncomparative ads are generally more effective is not the focus of this research. Rather, the focus is on understanding whether consumers who vary in their maximizing and satisficing orientations respond differently to advertising featuring maximal comparative (i.e., superiority) claims depending on the advertising’s focus on desirability or feasibility attributes.

Fit between Maximizers versus Satisficers and Desirability versus Feasibility

Research on regulatory focus suggests that the persuasiveness of advertising emphasizing feasibility or desirability attributes likely depends on consumers’ maximizing or satisficing orientation. Lee, Keller, and Sternthal (2010) find that the fit between regulatory focus and construal level enhances brand evaluations. People with a prevention focus had more favorable brand evaluations when presented with information at a low- rather than high-level construal, while the opposite was true for those with a promotion focus. Prevention-focused people focus more on feasibility and how things are done. They search for specific information to decrease the chance of making mistakes. Promotion-focused people focus more on desirability and why things are done. They want several alternatives for achieving the goal that will enhance their chances of achieving gains. Engagement and processing fluency are the underlying mechanisms.

In the same vein, research suggests that the fit between people’s temporal orientation and construal level enhances message persuasiveness (Martin et al. 2009). Future-oriented people are more persuaded by ads promoting a cell phone that will be launched in the next three weeks and that has more important primary attributes (e.g., easy-to-use features). Present-oriented people are more persuaded by ads promoting a cell phone that will be launched tomorrow and has less important secondary attributes (e.g., polyphonic ring tones) (Martin et al. 2009). In study 3, we
extend the findings of studies 1 and 2 on risk–reward and feasibility–desirability differences to
demonstrate how construal level and maximizing–satisficing orientation fit can enhance message
persuasiveness.

Maximizers tend to engage in more social comparisons and product comparisons than
satisficers to judge whether they have obtained the “best” outcome possible; in contrast,
satisficers are able to judge whether they have obtained a “good enough” option in absolute
terms (Schwartz et al. 2002). A maximizing orientation can predict the frequency of social and
product comparisons (Schwartz et al. 2002), but the amount of comparisons varies by product
type. Consumers tend to maximize when buying material goods and satisfice when buying
experiential goods because they are more likely to engage in more comparison for the former
than the latter (Carter and Gilovich 2010).

Because maximal comparative advertising often claims brand superiority to a comparison
brand or all other brands, it should appeal to maximizers who tend to welcome product
comparisons in their pursuit of the “best” option. However, we argue that maximizers may
respond better to comparative advertising that “fits” their concern with desirability than
comparative advertising that uses feasibility attributes because maximizers are outcome focused
and pay more attention to outcome- and desirability-related information. Building on the theory
that the fit between message orientation and message recipients’ characteristics is beneficial, we
predict that when those with a maximizing orientation view maximal comparative advertising
claims that highlight desirability attributes that match their preferences, they will have more
favorable brand evaluations than when the advertising claims highlight feasibility attributes. In
other words, because their maximizing orientation is greater, they are persuaded more by a
maximal comparative ad that emphasizes the desirability attributes of a product than one that highlights its feasibility attributes.

In contrast, people with a more satisficing orientation (i.e., those who pursue a “good enough” option) are less interested in pursuing the “best” option; thus, they may not process advertising that presents a brand as superior to a comparison brand or all other brands as fully as people with a greater maximizing orientation. Therefore, we predict that those with a greater satisficing orientation are less influenced by whether the maximal comparative advertising claims focus on feasibility- or desirability-oriented attributes. Thus, we propose the following two-part hypothesis:

**H3a:** People with a greater maximizing orientation (maximizers) will express greater purchase intentions when they are exposed to advertising highlighting desirability attributes than feasibility attributes.

**H3b:** People with a lesser maximizing orientation (satisficers) will express similar purchase intentions toward a brand regardless of whether the advertising claims highlight desirability or feasibility attributes.

The objective of study 3 was to test hypotheses 3a and 3b using an experimental design that varied whether an advertisement highlighted the desirability or feasibility attributes of a laptop computer.

**Method**

*Participants, Design, and Procedure.* Forty-three participants were recruited from an online panel and 88 undergraduate students were recruited to participate in a two-part experiment. They were randomly assigned to one of the two conditions: a feasibility-oriented
maximal comparative claim or a desirability-oriented maximal comparative claim. In the first part, participants read a one-page advertisement for a new laptop computer, which was followed by relevant measures and checks. In the second part, they responded to the maximizing–satisficing scale (Schwartz et al. 2002).

Message Orientation Manipulation. Participants were told that they would read about a laptop from a (fictitious) global electronics company: “The company plans to advertise the laptop in magazines and newspapers. The model of the laptop is Apatec S7. On the next page, you will read the advertising copy. Please read it carefully as if you are reading it in a magazine or a newspaper and seriously considering buying a laptop.”

Two advertisements were designed to highlight either a feasibility-oriented or a desirability-oriented message. Each ad contained a picture of a laptop and a header, footer, and information about the laptop. Participants in all conditions viewed the same laptop picture and read about the same three feasibility attributes (i.e., “Weighing only 3.2 pounds, Apatec S7 is thin, easy to carry, and convenient to move. Apatec S7 is available at all kinds of stores, and you can buy it everywhere. Its price is 10% lower than its previous version”) and three desirability attributes (i.e., “Apatec S7 is a premium-looking laptop. It is an efficient device with a fast, 3rd generation Intel Core i7 processor. Equipped with a 1080p HD touch screen, Apatec S7 showcases movies and games in stunning clarity”). We used different headers and footers to manipulate the orientation of the ads. In the desirability-oriented advertising claim condition, the header stated, “Introducing the Most Desirable Laptop,” and the footer stated, “Apatec S7 is the best-looking, fastest laptop with the clearest touch screen.” In the feasibility-oriented advertising claim condition, the header stated, “Introducing the Most Accessible Laptop,” and the footer
stated, “Apatec S7 is the lightest, most available, and most affordable laptop.” These two ads varied only in their header and footer orientation (feasibility vs. desirability). Feasibility-oriented ad modifications appear in parentheses in the following message excerpt (see appendix E for the detailed message manipulations):

Introducing the Most Desirable Laptop

(Introducing the Most Accessible Laptop)

Weighing only 3.2 pounds, Apatec S7 is thin, easy to carry, and convenient to move. Apatec S7 is available at all kinds of stores, and you can buy it everywhere. Its price is 10% lower than its previous version. Apatec S7 is a premium-looking laptop. It is an efficient device with a fast, 3rd generation Intel Core i7 processor. Equipped with a 1080p HD touch screen, Apatec S7 showcases movies and games in stunning clarity.

Apatec S7 is the best-looking, fastest laptop with the clearest touch screen.

(Apatec S7 is the lightest, most available, and most affordable laptop.)

Purchase Intention. After reading the advertisement, participants indicated their purchase intention (“I would consider buying Apatec S7 the next time I buy a laptop” and “I would switch to Apatec S7 from my current laptop brand,” anchored by “strongly disagree” (1) and “strongly agree” (7); \( r = .65 \)).

Maximizing–Satisficing Orientation. After indicating their purchase intention, we measured participants’ maximizing–satisficing orientation using the same scale as in studies 1 and 2 (Schwartz et al. 2002) (\( \alpha = .77 \)).
Manipulation Check for Message Orientation. Each ad had the same three feasibility attributes and the same three desirability attributes. Participants were asked to indicate which three of the six laptop attributes (weight, availability, price, appearance, speed, and display) the message emphasized by selecting three attributes from the left-hand side of the computer screen and then dragging and dropping each one into one of three boxes on the right-hand side. Thus, each box contained only one attribute, and three attributes remained on the left-hand side of the screen.

Results

Pretest and Manipulation Checks. We conducted a pretest to check whether the six attributes were related more to feasibility or to desirability. In the pretest (N = 73), for Apatec S7’s attribute set A participants read, “Weighing only 3.2 pounds, Apatec S7 is thin, easy to carry, and convenient to move. Apatec S7 is available at all kinds of stores, and you can buy it everywhere. Its price is 10% lower than its previous version.” Attribute set B included the statement, “Apatec S7 is a premium-looking laptop. It is an efficient device with a fast, 3rd generation Intel Core i7 processor. Equipped with a 1080p HD touch screen, Apatec S7 showcases movies and games in stunning clarity.” Participants were told that feasibility refers to how easily or conveniently an end goal can be reached and desirability refers to how valuable or useful it is to reach a goal. Participants indicated how the attribute set that included weight, availability, and price compared with the attribute set that included appearance, speed, and display quality in terms of feasibility on a seven-point scale anchored by “not at all more related to feasibility” (1) and “very much more related to feasibility” (7). They also indicated how these attribute sets compared in terms of desirability on a seven-point scale anchored by “not at all
more related to desirability” (1) and “very much more related to desirability” (7). The pretest showed that Apatec S7’s attribute set that included weight, availability, and price was related more to feasibility ($M_{Fea} = 4.47; t(72)_{\text{diff from 4}} = 1.98, p = .05$) and that Apatec S7’s attribute set that included appearance, speed, and display quality was related more to desirability ($M_{Des} = 5.47; t(72)_{\text{diff from 4}} = 7.30, p < .001$).

Next, we analyzed the number of feasibility and desirability attributes participants reported the message to emphasize to confirm that our header/footer affected which attributes they perceived as being highlighted. We created an index by subtracting the number of feasibility attributes in the message from the number of desirability attributes (scale 3 to −3). Using the approach that Aiken and West (1991) and Hayes (2013) outline, we regressed the mean-centered maximizing–satisficing measure, message orientation (dummy coded: 1 = desirability oriented, 0 = feasibility oriented), and their interaction on participants’ perceptions of the message orientation. We also controlled for population (undergraduates = 0, online panel = 1) in our analysis. The results revealed a significant main effect of message orientation; participants perceived the desirability-oriented ad as emphasizing desirability attributes more and feasibility attributes less, while the reverse was true for the feasibility-oriented ad ($\beta = 1.06, t(126) = 4.61, p < .0001$). There was no main effect of maximizing orientation or an interaction between maximizing orientation and message orientation, demonstrating that participants’ maximizing orientation did not affect how they perceived the ad’s emphasis. The analysis also revealed that population ($p > .17$) was not significant. These results confirm that our orientation manipulation was successful.
**Purchase Intention.** Again using Aiken and West’s (1991) and Hayes’s (2013) approach, we mean-centered the continuous maximizing–satisficing measure, dummy-coded the message orientation variable, and regressed message orientation, maximizing–satisficing orientation, and their interaction on purchase intention. We controlled for population in our analysis. The analysis revealed a significant interaction between message orientation and maximizing–satisficing orientation ($\beta = .62$, $t(126) = 2.16$, $p < .05$). To clarify the interaction, we conducted separate analyses for satisficers (at one standard deviation below average maximizing–satisficing orientation) and maximizers (at one standard deviation above average maximizing–satisficing orientation). Consistent with hypothesis 3, maximizers were more likely to purchase the brand when they saw the desirability- rather than the feasibility-oriented maximal comparative claim ($M_{\text{Max-Fes}} = 3.95$, $M_{\text{Max-Des}} = 4.65$; $\beta = .71$, $t(126) = 2.04$, $p < .05$). Satisficers were equally likely to purchase the brand regardless of the maximal comparative claims’ orientation ($M_{\text{Sat-Fes}} = 4.15$, $M_{\text{Sat-Des}} = 3.78$; $\beta = -.37$, $t(126) = -1.07$, $p > .28$; see figure 3). The analysis revealed that the effect of population ($\beta = .28$, $t(126) = 2.08$, $p < .05$) was significant, indicating that the online panel had greater purchase intentions than the undergraduates, a theoretically uninteresting result.

—Insert Figure 3 about here—

Discussion

Study 3 provides further support for our conceptual framework. In support of hypothesis 3a, we found that those with a greater maximizing orientation (maximizers) expressed greater purchase intentions when they saw a desirability-oriented rather than a feasibility-oriented maximal comparative claim. This is consistent with their emphasis on outcomes rather than
processes. In this study, we used header and footer information to manipulate the aspect on which the ad focused: feasibility or desirability attributes. Although those with a lesser maximizing orientation (satisficers) tend to be process-focused thinkers, they did not evidence more influence from feasibility-related than desirability-related attribute information, as hypothesis 3b predicted. That is, satisficers expressed equal purchase intentions whether they read a feasibility- or a desirability-oriented advertisement.

**GENERAL DISCUSSION**

This research examined the question whether people’s maximizing versus satisficing orientations influence their choices when they evaluate alternatives that vary feasibility and desirability attributes or even attribute information. Across three studies, using different ways to operationalize feasibility and desirability, the findings converge. In studies 1 and 2, we demonstrate that people’s preference for feasible and desirable options varies with their maximizing versus satisficing orientation. When people make a decision with a desirability and feasibility trade-off, an greater maximizing orientation leads to a greater preference for a higher-desirability, lower-feasibility option. This was true whether desirability–feasibility was operationalized as reward–risk gambles or desirability–feasibility attributes of a hike. In study 3, we demonstrate that when the orientation of an ad matches consumers with a maximizing orientation, the fit enhances purchase intentions more than when they do not match. Maximizers were more persuaded by desirability-oriented than feasibility-oriented maximal comparative claims. Conversely, satisficers were equally persuaded by desirability-oriented and feasibility-oriented ads. The latter result may be due to the type of advertising used in the study—an ad featuring maximal comparative claims of being the “most desirable, best-looking, fastest, and
People with a satisficing orientation are typically not interested in seeking out the best. The findings are also robust in that they were consistent regardless of whether consumers chose between options (studies 1 and 2) or evaluated a single product (study 3).

Theoretical Implications

This research contributes to the mental simulation, maximizing–satisficing, and desirability–feasibility literature streams. Prior research on mental simulation suggests that process- and outcome-focused thinking changes the relative focus on desirability and feasibility (Zhao et al. 2007). We build on this work to propose and demonstrate that maximizers and satisficers focus differently on process versus outcome factors, which influences their brand evaluations and decision making. Maximizers are outcome focused and thus focus relatively more on desirability aspects. Satisficers are process focused and focus relatively more on feasibility than desirability aspects. In addition, maximizers prefer higher-desirability, lower-feasibility options and are more persuaded by desirability-oriented than feasibility-oriented maximal comparative claims.

Prior research has examined the roles of message orientation and consumer characteristics such as temporal orientation (Martin et al. 2009) and regulatory focus (Lee et al. 2010) on evaluations and attitudes. By extending the findings to examine the role of consumers’ maximizing versus satisficing orientation, this research supports arguments that matching consumers’ characteristics and message orientation is beneficial. Our examination also extends comparative advertising research. Prior research has examined the influence of regulatory focus on persuasiveness of a comparative advertising maximal claim and a minimal claim (Jain et al.
2006). We identify that consumers’ maximizing versus satisficing orientation and message orientation are two novel factors that jointly influence comparative advertising effectiveness. We find that maximizers have greater purchase intentions when viewing desirability- rather than feasibility-oriented maximal comparative claims, while satisficers express similar purchase intentions regardless of the orientation of maximal comparative claims.

Prior research has examined whether consumers using a maximizing or satisficing strategy make different choices when purchasing experiential or materials goods (Carter and Gilovich 2010). We show that feasibility or desirability information influences how consumers make different choices when purchasing experiential or material goods. Material and experiential goods typically have both feasibility and desirability aspects. In this research, study 2 used a hiking trip scenario, which is an experiential decision, whereas study 3 described the purchase of material goods. We show that maximizers care more about desirability aspects regardless of purchase type.

Managerial Implications

This research has implications for consumer financial decision making. The results in study 1 show that people with an increased maximizing orientation have a greater preference for a higher-desirability, lower-feasibility option. These findings are informative for lottery ticket purchasing decisions and investment decisions. Maximizers may buy more lottery tickets than satisficers. Furthermore, maximizers may be more likely to buy stocks, a higher-risk, higher-reward product, than bonds, a lower-risk, lower-reward product. Thus, marketers should promote different investment options to consumers depending on their maximizing versus satisficing orientation.
Feasibility and desirability are useful attributes to investigate because products often have both attributes. This research provides insights into how maximizers and satisficers evaluate feasibility and desirability information differently. The results suggest that companies can create brochures using a similar idea to “choosing your own adventure,” which engages consumers by giving them the opportunity to decide which product attributes they would like to learn about more.

This research suggests that maximizing versus satisficing orientations also influence how people find parking spaces. Satisficers tend to park in the first parking space available because they focus more on feasibility. In contrast, maximizers focus more on desirability; so, although they may see an available parking space not too far from their destination, they take the chance and keep searching for another space closer to their destination.

This research has implications for the effectiveness of comparative advertising. First, managers should account for consumers’ maximizing versus satisficing orientation when they design comparative advertising. Maximal comparative claims are likely to be a more effective tool for consumers with a maximizing orientation than those with a satisficing orientation. Maximizers may be willing to pay more for an advertised brand featuring superior desirability attributes than for a comparison brand featuring superior feasibility attributes. Satisficers are less interested in maximal comparative claims and may be willing to pay a similar amount for an advertised brand featuring superior feasibility attributes and a comparison brand featuring superior desirability attributes. Second, the findings suggest that marketers should target different promotions and communications to maximizers and satisficers. As study 3 shows, maximal comparative claims targeted at maximizers should highlight desirability information, while ads targeted at satisficers should not use maximal comparative claims because satisficers
are less interested in pursuing the “best” option. Satisficers express similar purchase intentions regardless of whether maximal comparative claims highlight either feasibility or desirability information.

Future Research Directions

Further research should investigate temporal construal theory and the effect of maximizing or satisficing orientation on near- and distant-future decisions. Construal level theory research shows that psychological distance leads to a greater focus on desirability attributes than feasibility attributes, while psychological proximity increases emphasis on feasibility attributes more than desirability attributes (Liberman and Trope 1998; Liviatan, Trope, and Liberman 2008; Todorov, Goren, and Trope 2007). When a decision is psychologically proximal, people tend to focus on feasibility, which matches satisficers’ preferences. When the decision is psychologically distant, they tend to focus on desirability, which matches maximizers’ preferences. Purchasing a product for oneself versus someone else has different effects on the focus on the feasibility versus desirability aspects of the product (Hamilton and Thompson 2007). This research examines buying a product and choosing an option for oneself. Thus, further research could extend this work by comparing insights into buying a product for oneself with buying a product for another. We anticipate that maximizers’ decisions would change with a near-future and close social distance because such decisions would shift their focus from desirability to feasibility. Satisficers’ decisions would change with a distant-future and large social distance because their attention would shift from feasibility to desirability.
Another potential avenue for research would be to investigate the relationship between maximizing versus satisficing orientation and regulatory focus. Promotion-focused people care about achievement, growth (Higgins 1997), and desirability attributes (Lee et al. 2010), while prevention-focused people care about safety (Higgins 1997) and feasibility attributes (Lee et al. 2010). Maximizers are more promotion focused because they focus more on desirability and search for alternatives to achieve the “best” outcome. Satisficers are more prevention focused because they focus more on feasibility and limit their information search.

In this research, we examined the role of maximizing versus satisficing orientation in response to indirect maximal comparative claims that avoid naming a competitor directly. Further research could examine whether satisficers and maximizers respond differently to noncomparative ads; to minimal comparative claims, in which an advertised brand claims similarity to a comparison brand; and to direct comparative ads, which directly refer to a competitor by name. Furthermore, research could explore whether message orientation interacts with maximizing or satisficing orientations to jointly influence the effectiveness of these ads.

This research used U.S.-based samples. Additional research could examine whether and how maximizing versus satisficing orientation influences brand evaluations in other cultures. For example, Roets, Schwartz, and Guan (2012) suggest that maximizers in Western cultures (i.e., the United States and Western Europe) have lower levels of well-being than satisficers. In contrast, in Eastern cultures (e.g., China), there is no relationship between a maximizing tendency and well-being.

Finally, research could investigate whether people’s roles as sellers or buyers interact with their maximizing versus satisficing orientation and thus influence brand evaluations. Sellers focus more on the desirability aspects of products than buyers and owners (Irmak, Wakslak, and
Trope 2013). In study 3, we find that maximizing versus satisficing orientations influence brand evaluations when message receivers are buyers. Whether a maximizing versus a satisficing orientation influences brand evaluations when message receivers are sellers is a question worthy of further research.
BIBLIOGRAPHY


TABLE 1

Essay 1: Study 2 Results

Percentage of Entity and Incremental Theorists Choosing the Long Task by the Presence or Absence of Points and Theory Consistency

<table>
<thead>
<tr>
<th>Long-Task Choice</th>
<th>Entity Theorists</th>
<th>Incremental Theorists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory confirmation</td>
<td>No points 45%</td>
<td>39%</td>
</tr>
<tr>
<td>Points 54%</td>
<td>68%</td>
<td></td>
</tr>
<tr>
<td>Theory violation</td>
<td>No points 23%</td>
<td>47%</td>
</tr>
<tr>
<td>Points 68%</td>
<td>40%</td>
<td></td>
</tr>
</tbody>
</table>
FIGURE 1

Essay 1: Study 1 Results

Percentage of Entity and Incremental Theorists Choosing Branch Six Minutes Away by the
Presence or Absence of Points
FIGURE 2

Essay 1: Study 3 Results

Percentage of Entity and Incremental Theorists Choosing Reward Program B that Garners More Points by Focus

![Bar chart showing the percentage of participants choosing Reward Program B for Entity Theorists (-1 SD) and Incremental Theorists (+1 SD) for No-focus ad, Process-focused ad, and Outcome-focused ad.]

- Entity Theorists (-1 SD):
  - No-focus ad: 25%
  - Process-focused ad: 63%
  - Outcome-focused ad: 32%

- Incremental Theorists (+1 SD):
  - No-focus ad: 54%
  - Process-focused ad: 60%
  - Outcome-focused ad: 79%
FIGURE 3

Essay 2: Study 3 Results

Maximizers’ and Satisficers’ Mean Rating of Purchase Intention by Advertising Claims’ Orientation
APPENDIX A

Essay 1: Study 1 Manipulation of Entity Theory about the Economic Marketplace

Reproduced below are excerpts from an article that appeared in the newspaper “Science Observer.” This newspaper is highly regarded and is well known for publishing news articles about the latest developments in our understanding of how human beings, the world, and the economic marketplace work. Please read this article carefully and respond to the questions that follow.

Economic marketplace is stable

The economic marketplace, like plaster, is pretty stable over time.

Whether the economic marketplace is stable or changeable has been the focus of a large scale, long-term study at the Economy and Markets Development Unit (EMD) at Stanford University. Researchers at EMD, in their search for an understanding of this issue, followed 150 economies and markets over a period of 25 years. The researchers identified this sample to represent a wide range and type of economies and have been collecting elaborate data on them since, including economic and technological growth, mortality rates, political stability, changes in stock markets (wherever they exist), crime rates, housing starts, and inflation. They have also accumulated data for the same period for the micro-economy pertaining to retail presence of goods and services (like packaged goods, banking, appliances, etc.), wholesale and retail prices, distribution infrastructure, etc. The data have been collected, both from the governing bodies of the economies and from thousands of companies, their managers, and consumers.

Based on the findings of this research, Dr. Lawrence Rescorla, the director of EMD and a business strategy researcher, in an article published recently said the following:

“Economic and market characteristics seem to be rather fixed and to develop consistently along the same path over time. These characteristics might initially appear as a bundle of potentialities, but in the earlier part of the development, the potentials appear to consolidate into a cohesive whole. This economic and market profile may manifest itself in a clearer pattern as economies and markets mature, yet the underlying profile does not seem to change much over time.”

Similar conclusions were drawn by Dr. Paul Medin, an economist at the National Institute of Economic Markets. In his speech at an international conference held at Washington D. C. earlier this year, he argued that “in most markets, the fundamental character sets like plaster and rarely softens again.” He reported numerous longitudinal studies that show that markets—both at the macro and at the micro level—“grow and develop, but they do so on the foundation of enduring characteristics.”

Can external influences change markets?
According to Dr. Medin, external influences are not able to change markets, but they may be able to affect other characteristics such as specific market place relationships (e.g., between producers and distributors) or isolated consumer tendencies (e.g., variety seeking and pursuit of leisure). Yet these characteristics change only “in ways that are consistent with a particular market’s fundamental orientation,” Dr. Medin said.

Similar conclusions have been echoed by other researchers in the field. For example, Dr. Russell Kelley, a professor at UCLA, has done extensive research on how the environment can affect economies and markets even though it doesn’t really affect their “character.” He used the metaphor of how markets would behave in an inflationary situation and a recessionary situation. “Of course, economies would behave very differently in these two situations. But it does not mean that their underlying dispositions have changed. In fact, my research findings indicate that sometimes, a change of environment seems to affect markets, but it does not change their underlying orientation a bit,” Dr. Kelley added.

Examples abound that support the theory that markets are basically stable over time.

Interestingly, stability of markets and economies has been found to be the rule in history, whether they are free markets or controlled, rich or poor, conservative or liberal. Dr. Marsha Schneider, a business historian at the University of Chicago, has done research on the characteristics of markets, based largely on historical information and published interviews with key decision makers in these markets (like heads of states, CEOs of companies, etc.). Her conclusion is that “many markets in history displayed their key characteristics early on. These characteristics often served as a strong force to guide them through their evolution to achieve more or less prominence.” Among the 72 economies and markets she has analyzed the orientations of, she mentioned the US, Japan, Scandinavia, China, Australia, India, and Latin America. Dr. Schneider, based on her path breaking work, concluded that “Overall, historically significant markets are no different from ‘common’ economies in the sense that their basic character is relatively fixed and stable. Perhaps the difference is they had a distinctive character to begin with.”

In conclusion, research findings from a wide range of studies, including large-scale long-term studies, rigorous experiments, and historical analyses, converge to one major conclusion: The economic marketplace seems to be fixed and stable over time.
APPENDIX B

Essay 1: Study 1 Manipulation of Incremental Theory about the Economic Marketplace

Reproduced below are excerpts from an article that appeared in the newspaper “Science Observer.” This newspaper is highly regarded and is well known for publishing news articles about the latest developments in our understanding of how human beings, the world, and the economic marketplace work. Please read this article carefully and respond to the questions that follow.

Economic marketplace is changeable

The economic marketplace is changeable and can be developed.

Whether the economic marketplace is stable or changeable has been the focus of a large scale, long-term study at the Economy and Markets Development Unit (EMD) at Stanford University. Researchers at EMD, in their search for an understanding of this issue, followed 150 economies and markets over a period of 25 years. The researchers identified this sample to represent a wide range and type of economies and have been collecting elaborate data on them since, including economic and technological growth, mortality rates, political stability, changes in stock markets (wherever they exist), crime rates, housing starts, and inflation. They have also accumulated data for the same period for the micro-economy pertaining to retail presence of goods and services (like packaged goods, banking, appliances, etc.), wholesale and retail prices, distribution infrastructure, etc. The data have been collected, both from the governing bodies of the economies and from thousands of companies, their managers, and consumers.

Based on the findings of this research, Dr. Lawrence Rescorla, the director of EMD and a business strategy researcher, in an article published recently said the following:

“Economic and market characteristics seem to be malleable and can be developed over time. In fact, these characteristics are basically of potentialities that wait to be developed and cultivated. Further, at almost any time in a market’s life, its characteristics can be shaped.”

Similar conclusions were drawn by Dr. Paul Medin, an economist at the National Institute of Economic Markets. In his speech at an international conference held at Washington, D.C., earlier this year, he argued that “no economy’s or market’s character is hard like a rock that cannot be changed. Only for some, greater effort and determination are needed to effect changes.” He reported numerous longitudinal studies that show that markets—both at the macro and at the micro level—“grow, develop, and can mature and change their character, even in their later part of existence.”

How does the market change?
“Of course an economic marketplace’s character does not change automatically,” said Dr. Medin. “Usually, there are some events in its life that motivate them to change.”

Similar conclusions have been echoed by other researchers in the field. For example, Dr. Russell Kelley, a professor at UCLA, has done extensive research on how the economies and markets change. “I all know people and markets that display such rigid and enduring characteristics that change seems impossible. But, in fact, that is not true. On the contrary, my research findings show that with the right policy initiatives, sufficient motivation, and some external help, these economies and market can develop well beyond their current patterns,” Dr. Kelley added.

Examples abound that support the theory that markets can change and develop their orientation as well.

Interestingly, change in markets and economies has been found to be the rule in history, whether they are free markets or controlled, rich or poor, conservative or liberal. Dr. Marsha Schneider, a business historian at the University of Chicago, has done research on the characteristics of markets, based largely on historical information and published interviews with key decision makers in these markets (like heads of states, CEOs of companies, etc.). Her conclusion is that “many markets in history developed their key characteristics over their evolution. These characteristics often served as a strong force to guide them through this evolution to achieve more or less prominence.” Among the 72 economies and markets she has analyzed the orientations of, she mentioned the US, Japan, Scandinavia, China, Australia, India, and Latin America. Dr. Schneider, based on her path breaking work concluded that “Overall, historically significant markets are no different from ‘common’ economies in the sense that their basic character is relatively changeable. Perhaps the difference is they cultivated and developed a distinctive character.”

In conclusion, research findings from a wide range of studies, including large-scale long-term studies, rigorous experiments, and historical analyses, converge to one major conclusion: The economic marketplace seems to be changeable and can be cultivated.
APPENDIX C

Essay 1: Study 3: No-Focus, Process-Focused, and Outcome-Focused Ads

No-Focus Ad

<table>
<thead>
<tr>
<th>Program A</th>
<th>Program B</th>
</tr>
</thead>
<tbody>
<tr>
<td>You will earn 6 points for</td>
<td>You will earn 10 points for</td>
</tr>
<tr>
<td>every dollar you charge on</td>
<td>every dollar you charge on</td>
</tr>
<tr>
<td>Chase RANK credit card.</td>
<td>Chase RANK credit card.</td>
</tr>
<tr>
<td>After you accumulate 60,000</td>
<td>After you accumulate 100,000</td>
</tr>
<tr>
<td>points, you will earn a 3-day/2</td>
<td>points, you will earn a 3-day</td>
</tr>
<tr>
<td>night vacation package</td>
<td>night vacation package</td>
</tr>
<tr>
<td>for two in Hawaii, including</td>
<td>for two in Hawaii OR Miami,</td>
</tr>
<tr>
<td>airline tickets and hotel</td>
<td>including airline tickets and</td>
</tr>
<tr>
<td>accommodations.</td>
<td>hotel accommodations.</td>
</tr>
</tbody>
</table>

Process-Focused Ad

<table>
<thead>
<tr>
<th>Program A</th>
<th>Program B</th>
</tr>
</thead>
<tbody>
<tr>
<td>You will earn 6 points for</td>
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</tr>
<tr>
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<tr>
<td>night vacation package</td>
<td>night vacation package</td>
</tr>
<tr>
<td>for two in Hawaii, including</td>
<td>for two in Hawaii OR Miami,</td>
</tr>
<tr>
<td>airline tickets and hotel</td>
<td>including airline tickets and</td>
</tr>
<tr>
<td>accommodations.</td>
<td>hotel accommodations.</td>
</tr>
</tbody>
</table>

The process cannot be easier: Simply swipe your card to earn reward points!
Sign up today and start using your card to earn reward points!
## Outcome-Focused Ad

### INTRODUCING

**RANK CREDIT CARD**

The Card that Earns you a Vacation Package

<table>
<thead>
<tr>
<th>Program A</th>
<th>Program B</th>
</tr>
</thead>
<tbody>
<tr>
<td>You will earn 6 points for every dollar you charge on Chase RANK credit card. After you accumulate 60,000 points, you will earn a 3-day/2 night vacation package for two in Hawaii, including airline tickets and hotel accommodations.</td>
<td>You will earn 10 points for every dollar you charge on Chase RANK credit card. After you accumulate 100,000 points, you will earn a 3-day/2 night vacation package for two in Hawaii OR Miami, including airline tickets and hotel accommodations.</td>
</tr>
</tbody>
</table>

**You can’t beat the reward for using this credit card:**

Awesome **vacation package** awaits you!

**Sign up today and start using your card to earn a vacation package!**
APPENDIX D

Essay 2: The Maximizing–Satisficing Scale (Schwartz et al. 2002)

(1) No matter how satisfied I am with my job, it’s only right for me to be on the lookout for better opportunities.

(2) When I am in the car listening to the radio, I often check other stations to see if something better is playing, even if I am relatively satisfied with what I’m listening to.

(3) When I watch TV, I channel surf, often scanning through the available options even while attempting to watch one program.

(4) I treat relationships like clothing: I expect to try a lot on before I get the perfect fit.

(5) I often find it difficult to shop for a gift for a friend.

(6) Renting videos is really difficult. I’m always struggling to pick the best one.

(7) I’m a big fan of lists that attempt to rank things (the best movies, the best singers, the best athletes, the best novels, etc.).

(8) When shopping, I have a hard time finding clothing that I really love.

(9) I find that writing is very difficult, even if it’s just writing a letter to a friend, because it’s so hard to word things just right. I often do several drafts of even simple things.

(10) I never settle for second best.

(11) Whenever I’m faced with a choice, I try to imagine what all the other possibilities are, even ones that aren’t present at the moment.

(12) I often fantasize about living in ways that are quite different from my actual life.

(13) No matter what I do, I have the highest standards for myself.
APPENDIX E

Essay 2: Study 3 Advertising Stimuli

A: Desirability-oriented Advertising Claim

Introducing the Most Desirable Laptop

Weighing only 3.2 pounds, Apatec S7 is thin, easy to carry, and convenient to move. Apatec S7 is available at all kinds of stores, and you can buy it everywhere. Its price is 10% lower than its previous version. Apatec S7 is a premium-looking laptop. It is an efficient device with a fast, 3rd generation Intel Core i7 processor. Equipped with a 1080p HD touch screen, Apatec S7 showcases movies and games in stunning clarity.

Apatec S7 is the best-looking, fastest laptop with the clearest touch screen.

B: Feasibility-oriented Advertising Claim

Introducing the Most Accessible Laptop

Weighing only 3.2 pounds, Apatec S7 is thin, easy to carry, and convenient to move. Apatec S7 is available at all kinds of stores, and you can buy it everywhere. Its price is 10% lower than its previous version. Apatec S7 is a premium-looking laptop. It is an efficient device with a fast, 3rd generation Intel Core i7 processor. Equipped with a 1080p HD touch screen, Apatec S7 showcases movies and games in stunning clarity.

Apatec S7 is the lightest, most available, and most affordable laptop.