An Obligation to Work or an Opportunity to Have Fun?
The Influence of Task Construal and Task Completion on Regulatory Behavior

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Volitional behaviors can be construed as “work” (i.e., extrinsically motivated) or as “fun” (i.e., intrinsically motivated). When volitional behaviors are construed as an obligation to work, completing the behavior depletes a consumer and subsequent self-control becomes more difficult. When volitional behaviors are construed as an opportunity to have fun, completing the behavior vitalizes a consumer and subsequent self-control becomes easier. Six studies show how individual differences and contextual factors influence the construal of a task, the motivation for completing it, and subsequent regulatory behavior.
Self-control failures among the U.S. population are at epidemic levels. Approximately one in five U.S. citizens over the age of 12 (46.2 million people) admits to binge drinking at least once per month (U.S. Department of Health and Human Services 2002). It is estimated that between 17 million and 37 million Americans exhibit sexually compulsive behaviors (i.e., uncontrollable sexual behaviors that result in negative consequences for the person and relevant others) three or more times per year (Hagedorn and Juhnke 2005). Approximately 10 million people suffer from clinical eating disorders (e.g., anorexia, bulimia) with an additional 25 million suffering at least one form of binge eating disorder (Godfrey 2004). Approximately 2.4 million adults engage in uncontrolled buying, as characterized by an invasive need to shop, an inability to control shopping behavior, and a continued state of shopping-related duress (e.g., negative mood, social dysfunction, employment difficulty, and financial problems) (Lejoyeux et al. 1996). Regrettably, many U.S. citizens experience more than one serious form of self-control failure (Carnes 1992; Griffin-Shelley, Sandler, and Lees 1992). The importance of understanding the causes of self-control failures has led to a significant amount of research in the consumer domain (e.g., Fishbach and Dhar 2005; Kivetz and Simonson 2002; Laran and Janiszewski 2009; Mukhopadhyay, Sengupta, and Ramanathan 2008; Ramanathan and Williams 2007).

One of the most popular explanations of self-control failure is the depletion hypothesis (Baumeister et al. 1998; Vohs and Faber 2007). The depletion hypothesis invokes the muscle metaphor to explain behavioral control. It is posited that people control behavior by drawing on a limited supply of regulatory resources. As a person engages in more frequent or more difficult acts of self-control, the regulatory resource becomes depleted (i.e., the muscle becomes tired) and the person becomes more likely to exhibit regulatory failure. Further, it is not the act of self-control that depletes, but the effort that accompanies the execution of the act. There is
accumulating evidence that a wide variety of effortful, regulatory behaviors (e.g., thought suppression, sustained attention, overriding automatic acts) are depleting (e.g., Muraven, Tice, and Baumeister 1998; Schmeichel, Vohs, and Baumeister 2003; Vohs, Baumeister, and Tice 2008; Vohs and Faber 2007). Based on this evidence, it is difficult to offer advice about how to address the problem of self-control failures. Short of asking people to reduce depleting activities or to rest, effective remedies for self-control failures are not obvious (Muraven et al. 2005a; but see Agrawal and Wan 2009 and Oaten and Cheng 2006).

We propose a different approach to understanding self-control failure. We contend that self-control success and failure can be a natural consequence of engaging in volitional behavior. Volitional behaviors can be construed as “work” (i.e., extrinsically motivated) or as “fun” (i.e., intrinsically motivated) (DeCharms 1968). When volitional behaviors are construed as an obligation to work, the behavior depletes resources and self-control becomes more difficult. Yet, depletion only exerts its influence on self-control after completion of the behavior. If self-control were to fail prior to completion of the behavior, it would be difficult for a person to complete any volitional behaviors. When volitional behaviors are construed as an opportunity to have fun, the behavior vitalizes and self-control becomes easier. Like depletion, vitality only exerts its influence on self-control after completion of the behavior. In general, it is the completion of a behavior that provides a sense of competence, achievement, and satisfaction.

We use six experiments to show that the construal of a volitional behavior can depend on individual differences or on contextual framing. In experiments 1A and 1B, we show that low-self control people are more likely to construe volitional behaviors as obligations to work and that high self-control people are more likely to construe volitional behaviors as opportunities to have fun. As a consequence, low self-control people that complete (do not complete) a volitional
behavior exhibit (do not exhibit) future regulatory failure. In contrast, high self-control people that complete (do not complete) a volitional behavior exhibit future regulatory success. Experiment 2 shows that high self-control people can be made to act like low self-control people when an initial effortful behavior is unambiguously framed as an obligation to work. Experiment 3 shows that low self-control people can be made to act like high self-control people when an initial effortful behavior is unambiguously framed as an opportunity to have fun. Experiment 4 shows that when an initial behavior is easy (vs. difficult), and the behavior is complete, low self-control people become less likely to exhibit regulatory failure (i.e., their obligation to work was limited) and high self-control people become more likely to exhibit regulatory failure (i.e., their opportunity to have fun was limited). Experiment 5 shows that when extrinsic rewards are made an explicit consequence of performing the initial behavior, high-self control people no longer derive vitality from performing the behavior. Thus, high-self control people become more likely to experience regulatory failure.

SELF-CONTROL AND MOTIVATED BEHAVIOR

Perspectives on self-control, and by extension a loss in self-control, can be traced to assumptions about motivated behavior. Theories of motivated behavior can be broadly classified into need deficit theories and need nutrient (surplus) theories (Deci and Ryan 2000). We begin with a discussion of how these theories influence thought about regulatory behavior.

Deficit Needs and Self-Control

The deficit view of motivated behavior assumes that a person strives to maintain homeostasis in physiological and psychological systems. Initially, motivated behavior occurs because there is a deficit in innate physiological needs. For example, when a child experiences a
deficit in food or water, a drive develops in proportion to the size of the deficit (Hull 1943).
Behaviors that successfully reduce the drive are reinforced. With maturation, basic physiological
needs generalize to psychological needs that are satisfied by similar reward profiles. Thus,
indulgent food (e.g., Baumeister et al. 1998) and sexual stimuli (e.g., Van den Bergh et al. 2008)
come to meet psychological needs, as do merchandise (e.g., Rook 1987), cigarettes (e.g.,
O’Connell, Schwartz, and Shiffman 2008), and alcohol (e.g., Muraven et al. 2005a).

Strictly speaking, self-control is the regulation of the behaviors that meet physiological or
psychological needs. To the extent behaviors are instrumental in meeting needs, limiting the
execution of these behaviors is effortful. The ego depletion model (e.g., Baumeister et al. 1998)
discusses the consequences of effortful regulation. The ego-depletion model of self-control
assumes that acts of self-control require an inner strength, that acts of control deplete this
strength (i.e., resource depletion), and that successful self-control depends on the amount of
resources required as compared to the amount of resources available (Muraven and Baumeister
2000). This emphasis on self-control resources has led to a broadening of the definition of acts
that deplete resources to those that require some form of regulation. For example, avoiding
attention to a certain visual input in a complex visual environment (e.g., Vohs and Faber 2007),
suppressing thoughts about certain topics (e.g., Muraven et al. 1998), making difficult decisions
(e.g., Wang et al. 2009), and overriding a well-learned rule (e.g., Tice et al. 2007) have all been
shown to lead to losses of self-control. These demonstrations suggest that any volitional act
containing a regulatory component will deplete resources used to sustain self-control.

Surplus Needs and Self-Control

The second approach to understanding motivation is the surplus view (Deci and Ryan
1985; 2000). Under the surplus view, psychological well-being depends on psychological
nutriments (i.e., a surplus resource). Nutriments need support exploration, play, achievement, and other forms of behavior that are difficult to link to physiological or psychological deficits. Nutriment needs include competence, autonomy, affiliation, power, etc. (cf. Deci and Ryan 2000). When behavior is motivated by nutriment needs, a person experiences a sense of vitality or energy as a consequence of performing the behavior (Ryan and Deci 2008). In effect, volitional behavior that is driven by nutriment needs results in an increase in energy. The nutriment view of motivation is exemplified by self-determination theory (Deci and Ryan 1985) and flow theory (Csikszentmihalyi 1975).

The nutriment approach to self-control hypothesizes that self-control success is a consequence of a resource surplus (e.g., vitality). When people engage in intrinsically motivated behavior (i.e., behavior that makes a person feel competent and self-determined), the behavior creates a psychological benefit (vitality) that can support self-control. Deci and Ryan (2000) observe that a felt sense of autonomy (i.e., that the regulatory act is volitional and consistent with the person’s sense of self) promotes regulation because it promotes intrinsic motivation. For example, morbidly obese people that experience a support system emphasizing autonomy more successfully sustain weight loss over a 23 months period (Williams et al. 1996). Likewise, autonomy support enhances glucose control in diabetes patients over a one year period (Williams et al 2004). Autonomy support has also been linked to sustained smoking cessation over a 30 month period (Williams et al. 2002). In each of these situations, consumers were encouraged to identify an internal locus of causality (i.e., a motivation for the behavior that is within one’s self) as opposed to an external locus of causality (i.e., motivation by extrinsic rewards). Thus, unlike ego-depletion theory, a surplus view of motivation proposes that volitional behavior is not uniformly depleting – volitional behavior can create vitality when it is intrinsically motivated.
Extrinsic and Intrinsic Motivation

The discussion of the deficit and surplus views of motivation suggests that extrinsic and intrinsic motivation are instrumental in the experience of depletion or vitality. As might be expected, the conceptualization of the relationship among these constructs depends on the theorist’s view of motivation. For example, Muraven, Gagné, and Rosman (2008) use a deficit view to link ego-depletion theory to motivation. They find that forced compliance (e.g., resisting cookies owing to the demands of a callous experimenter) leads to more depletion than voluntary compliance (e.g., resisting cookies owing to an informative explanation about the importance of the research). Their explanation is as follows. First, volitional behavior depletes resources. Second, when the motivation for effortful behavior is intrinsic, people experience vitality. Third, vitality helps replenish the loss of self-control resources. Thus, relative to a control group, an extrinsically motivated initial behavior should result in a lack of regulation on a second behavior (a vigilance task in which the number 64 had to be found in a list of numbers) whereas an intrinsically motivated behavior should not influence subsequent regulation. The null effect in the intrinsically motivated group is a function of two countervailing forces: depletion and vitality replenishment.

Muraven et al. (2008) is the first paper to show that extrinsic and intrinsic motivation can influence subsequent regulatory control. Yet, the Muraven et al. (2008) perspective is deficit-based in that it assumes any volitional behavior is by definition depleting. A reading of the motivation literature suggests a more balanced view of the influence of volitional behavior. It may be that extrinsically motivated behavior has the potential to be depleting, whereas intrinsically motivated behavior has the potential to be invigorating (create vitality). In fact, we propose that intrinsically motivated behavior does not deplete. We refer to this conceptualization
as the *motivational source* perspective because the emphasis is on the extrinsic / intrinsic source of the motivation as opposed adjustments to the amount of depletion.

Muraven et al.’s (2008) deficit-based perspective and the proposed motivational source perspective are difficult to differentiate because they make a common prediction – i.e., extrinsically motivated volitional behavior should result in less self-control than intrinsically motivated volitional behavior. Yet, there is one area in which the predictions of these two perspectives diverge. The perspectives make different predictions with respect to framing the degree of the volitional task completion. To illustrate, consider an ongoing volition task that can be framed as incomplete (e.g., “there is more to do”) versus compete (e.g., “you are finished”). The deficit-based perspective assumes depletion is a function of the amount of regulatory effort. Thus, framing an executed volitional task as incomplete or complete should have no influence on the amount of depletion. In contrast, the motivational source perspective assumes that depletion and vitality depend on whether a task is perceived as incomplete or complete – depletion and vitality are experienced as a consequence of task completion. If depletion and vitality were experienced prior to task completion, then it would be beneficial to abandon volitional acts prior to completion. Frequent task abandonment would be dysfunctional.

**Dispositional Influences on Motivation and Regulation**

Dispositional factors can encourage a consumer to construe a volitional task as extrinsically or intrinsically motivated which, in turn, can influence subsequent regulatory behavior. Three pieces of evidence support this hypothesis. First, there is considerable evidence that people vary in their tendency to be intrinsically or extrinsically motivated when engaging in volitional behavior (Kasser & Ryan 1996; Brown and Ryan 2004). Second, people can express a relationship between intrinsic (extrinsic) motivation and regulatory success (failure). Ryan and
colleagues (Deci et al. 1991; Grolnick and Ryan 1987; Williams et al. 2009; Williams et al. 1998) asked people to indicate the extent to which they engage in education, health, social regulatory behavior and why they do it. The more closely the participant identified with regulation, the more likely the participant was to identify intrinsic reasons for the regulation. Third, Babin, Darden, and Griffin (1994) showed that utilitarian (hedonic) consumption activities were thought of as work (fun), and that these perceptions varied for different individuals. Together, these findings suggest that people vary in their general motivation for behavior, that they are aware that their motivational disposition impacts their regulatory control (i.e., know they are low or high self-control), and that they associate different motivational orientations with work or fun. This suggests that people that are more often extrinsically motivated (i.e., low self-control people) are more likely to perceive volitional behaviors as an obligation to work and people that are more often intrinsically motivated (i.e., high self-control people) are more likely to perceive volitional behavior as an opportunity to have fun.

Combining these insights about the relationship between motivation and self-control with the predictions of the motivational source perspective about incomplete and complete volitional behavior leads to the following hypotheses:

**H1a:** Low self-control people are more likely to exhibit regulatory failure when an initial, volitional behavior is perceived as complete as compared to incomplete.

**H1b:** High self-control people are more likely to exhibit regulatory success when an initial, volitional behavior is perceived as complete as compared to incomplete.

**Situational Influences on Motivation and Regulation**

An implicit assumption of hypotheses 1a and 1b is that low and high self-control people are able to construe the same behavior in different ways. We assume this construal bias behaves
like any other type of perceptual bias: the construal can be altered via framing. In other words, a behavior can be framed so that it is construed as an obligation to work or as an opportunity to have fun. When a behavior is framed as an obligation to work, motivation will be extrinsic. Thus, task completion, as opposed to task interruption, will encourage subsequent regulatory failure, regardless of the self-control tendencies of the individual. When a behavior is framed as an opportunity to have fun, motivation will be extrinsic. Thus, task completion, as opposed to task interruption, will encourage subsequent regulatory success, regardless of the self-control tendencies of the individual.

**H2a:** When an initial, effortful behavior is framed as an obligation to work, people are more likely to exhibit regulatory failure when the behavior is perceived as complete as compared to incomplete.

**H2b:** When an initial, effortful behavior is framed as an opportunity to have fun, people are more likely to exhibit regulatory success when the behavior is perceived as complete as compared to incomplete.

**EXPERIMENTS 1A AND 1B**

Low and high self-control people (a measured variable) were asked to engage in a volitional behavior that could be perceived as work (extrinsically motivated) or fun (intrinsically motivated). After performing the initial behavior, the behavior was framed to be complete or incomplete. Subsequently, the participant had the opportunity to engage in regulatory behavior that required limiting immediate gratification (experiment 1A) or sustaining performance on a tedious task (experiment 1B). Congruent with hypotheses 1a and 1b, we anticipated that
perceived task completion would lead to more (less) regulatory failure in a subsequent task for low (high) self-control people.

**Experiment 1A**

In experiment 1A, we investigated how performing an initial volitional behavior influenced a person’s ability to limit immediate gratification. The initial volitional behavior involved following strict instructions while tasting and evaluating a small amount of two different candies. Subsequently, participants engaged in unrelated tasks while the candy remained in close proximity. The key dependent measure was the consumption of additional candy during the performance of the unrelated tasks.

*Participants and Design.* Participants were 106 undergraduate business students who participated in exchange for course credit. The experiment used a two-factor design. The participant’s level of self-control was a measured variable, while task completion (complete versus incomplete) was manipulated between-subjects.

*Procedure.* Participants entered a behavioral lab and were seated in front of personal computers. Instructions told participants that they would participate in three studies, supposedly unrelated. The first study gave participants the following instructions:

Candy manufacturers have found that consumers eat more candy when it is not messy. Candy that makes a person’s fingers sticky, clothes dirty, or gets stuck in one’s teeth is less likely to be purchased and consumed. We would like to assess your perceptions of the “messiness” of two candies and how it influences your intent to purchase them. On your desk, you will see a bag of Skittles, a bag of M&M’s, and two bowls. Empty the bag of Skittles into one bowl and the bag of M&Ms into the other bowl.

Participants were told to click on a continue button to start the study. They were first told to take one Skittle and hold it between their thumb and forefinger for 30 seconds and then place it on their napkin. They were then asked how sticky their fingers were, how much food dye was
on their fingers, and how oily their fingers were. Participants were then told to put one Skittle in their mouth for five seconds, take it out, and put it on a napkin in their work station. They were then asked how bad the stain on the napkin was, how likely they were to get a similar stain on their clothes, and how likely they were to buy that candy in the future. The procedure was then repeated for M&M’s. Note that the procedure required two Skittles and two M&Ms. Also note that the instructions did not tell participants to eat the candy. Napkins collected after the session confirmed that participants complied with these instructions.

Participants in the “completed initial task” condition were then told: “You have now finished the candy experiment. Click on the continue button to advance to the next study.” The next screen was an Institutional Review Board informed consent screen for study 2. After reading and agreeing to the informed consent, participants moved on to the next task. Participants in the “incomplete initial task” condition were told: “Click on the continue button in order to answer additional questions about your behavior.” This condition did not include an Institutional Review Board informed consent screen. This instruction led participants to believe that study 1 was ongoing.

The next task was a 20-minute activity that elicited opinions about political issues. The political opinion task was clearly unrelated to the initial candy eating task, but participants were not notified of this fact. The bowls containing Skittles and M&M’s remained in the participants’ work stations during the time they completed the remaining tasks. Participants were not given any instruction about whether or not they could eat the candies.

The final task, called “College Students’ Habits”, asked a series of filler questions and 13 questions about participants’ self-control (Tangney et al. 2004). Examples of the self-control scale items were: “I am good at resisting temptation”, “I have a hard time breaking bad habits”,
and “I am lazy”. These items were answered on a scale ranging from one (strongly disagree) to nine (strongly agree).

**Dependent Measure.** The candy remaining in the bowls at the end of the experimental session was weighed. The amount eaten (in grams) was the indicator of regulatory behavior. Experimenter observation confirmed that no participant ate additional during the candy rating task. Participants that emptied the bowls of candy into their purse or knapsack were excluded from the analysis in this and subsequent studies.

**Manipulation Check.** An independent sample of 121 participants from the same subject pool was used to confirm that low self-control people perceived the initial task as work and high self-control perceived the initial task as fun. Participants experienced the experiment 1a procedure through the “task completion” manipulation. Then participants were asked to report how much they perceived the task to be (1) an obligation to work and (2) an opportunity to have fun on a scale ranging from 1 – “Not at all” to 7 – “A lot”. Next, participants indicated how tired (depletion measure), stressed, and anxious they felt on a scale ranging from 1 – “Not at all” to 7 – “A lot”. After 35 minutes of unrelated tasks, participants’ completed the Tangney et al. (2004) self-control scale. Additional measures (conscientiousness, impulsivity, self-esteem, and perfectionism) were included to address potential alternative hypotheses.

The results were consistent with the intended manipulation. Two regression analyses showed that low self-control people perceived the initial task as more of an obligation to work ($\beta = -.55, p < .01$), whereas high self-control people perceived the initial task as more of an opportunity to have fun ($\beta = .47, p < .01$). Consistent with these findings, low-self control people also reported feeling more depleted ($\beta = -.22, p < .05$), more stressed ($\beta = -.25, p < .01$), and more anxious ($\beta = -.57, p < .01$). As expected, there was no effect of the task completion
manipulation (all $p$’s > .63), or the self-control by task completion interaction (all $p$’s > .58), on any of the five manipulation check measures. Finally, conscientiousness (lowest $p = .51$), impulsivity (lowest $p = .20$), self-esteem (lowest $p = .31$), and perfectionism (lowest $p = .37$) did not influence the results and were not influenced by the experimental manipulations or their interaction.

Results. The 13 items measuring self-control were highly correlated ($\alpha = .72$). Thus, we collapsed these items to form a unitary measure of self-control. This was true in every study presented in this paper and will not be discussed further. Following the Aiken and West (2001) procedure (see also Fitzsimons 2008), the amount of candy eaten was regressed on the individuals’ self-control index, task completion (i.e., a dummy variable for whether the initial task was framed as completed or incomplete), and their interaction. The results are presented in figure 1. There was an interaction between the self-control and task completion factors ($\beta = 11.50, p < .05$). In order to clarify the nature of this interaction, we performed a spotlight analysis at one standard deviation below and one standard deviation above the mean of self-control. At one standard deviation below the mean of self-control (i.e., low self-control), participants ate more grams of candy in the completed task condition than in the incomplete task condition ($\beta = -11.92, p < .05$). At one standard deviation above the mean of self-control (i.e., high self-control), participants ate less in the completed task condition than in the incomplete task condition ($\beta = 10.83, p < .05$).
In experiment 1B, we investigated how an initial volitional behavior influenced a person’s ability to sustain performance on a tedious task. The initial, volitional behavior involved making a series of difficult choices involving trade-offs among three options with negatively correlated attributes. Choices involving difficult trade-offs have been used successfully in prior studies on regulatory failure (Dewitte et al. 2009; Wang et al. 2009; Schmeichel et al. 2003). Subsequently, participants had the opportunity to voluntarily evaluate products. Repeated product assessment is similar to regulatory tasks that have been studied in the social sciences (e.g., sustaining a handgrip, Baumeister et al. 1998; finding embedded figures, Vohs and Heatherton 2000; concentrating on a detection task, Muraven et al. 2008), but is more marketing oriented. The key dependent measure was the number of product assessments performed, with fewer product assessments indicating less ability to regulate behavior.

**Participants and Design.** Participants were 134 undergraduate business students who participated in exchange for course credit. The experiment used a two-factor design. The participant’s level of self-control was a measured variable, while task completion (complete versus incomplete) was manipulated between-subjects.

**Procedure.** Participants entered the behavioral lab and were seated in front of personal computers. Instructions told participants that they would participate in three studies, supposedly unrelated. The first study gave participants the following initial instructions:

> “You are going to see a series of product descriptions. Please choose one of the options in each set of three. Assume that the alternatives in each choice set are similar in all other attributes. Be careful when making each decision. Be sure you choose the best option from each set.”

For each choice set, choosing a given option owing to a preference for better performance on one attribute level meant giving up performance on a second attribute (see appendix A). After
making four choices, participants in the *completed initial task* condition were told that they were done with study 1, clicked on a continue button, and moved to study 2 after seeing a new Institutional Review Board informed consent. Participants in the *incomplete initial task* condition were told to click on the continue button in order to answer “additional questions about their behavior”. All participants engaged in a task called “Product Ads” with the following instructions:

> “Please evaluate the following products based on their attributes. Note that there are an infinite number of products for evaluation. Therefore, we added the option of quitting the study. You may quit whenever you want to by clicking on the appropriate button on the screen.”

Each product was presented on a separate screen and was evaluated on a scale ranging from one (really bad) to nine (really good). Each product was described by three attributes. Products were from electronic categories, such as computers (e.g., 2 GB of RAM memory, 160 MB hard drive, 2.0 GHz processor speed), mp3 players (e.g., 30 GB, 6.7 ounces, 2-year warranty), and televisions (e.g., 39-inch screen, Plasma, Built-in Surround Sound). The product descriptions were similar in terms of which attributes they had, which made the task tedious. Participants needed to perform self-control to sustain performance at this task rather than quit the experiment and engage in alternative behaviors. After rating each product, the participant was given the opportunity to continue the task (i.e., select a “continue” button located right below the rating scale) or to end the task (i.e., select a “click here if you want to quit this task” button located right below the continue button). The number of products each participant was willing to evaluate before quitting the task was the measure of self-control.

*MManipulation Check.* An independent sample of 122 participants from the same subject pool were used to confirm that low self-control people perceived the initial choice task as work and high self-control perceived the initial choice task as fun. Participants experienced the
experiment 1b procedure though the “task completion” manipulation and then completed the five manipulation check measures and the four alternative hypotheses measures. Two regression analyses showed that low self-control people perceived the initial task as more of an obligation to work ($\beta = -.45, p < .01$), whereas high self-control people perceived the initial task as more of an opportunity to have fun ($\beta = .41, p < .01$). Consistent with these findings, low-self control people also reported feeling more depleted ($\beta = -.30, p < .05$), more stressed ($\beta = -.47, p < .01$), and more anxious ($\beta = -.38, p < .01$). As expected, there was no effect of the task completion manipulation (all $p$’s > .46), or the self-control by task completion interaction (all $p$’s > .36), on any of the five manipulation check measures. Finally, conscientiousness (lowest $p = .70$), impulsivity (lowest $p = .24$), self-esteem (lowest $p = .68$), and perfectionism (lowest $p = .32$) did not influence the results and were not influenced by the experimental manipulations or their interaction.

**Results.** The number of products assessed was regressed on the individuals’ self-control index, task completion (i.e., a dummy variable for whether the initial task was framed as complete or incomplete), and their interaction. The results are presented in figure 1. The y-axis is set from high to low so that higher points on the graph correspond to more regulatory failure. There was a significant interaction between the self-control and task completion variables ($\beta = -31.00, p < .01$). To clarify the nature of this interaction, we performed a spotlight analysis at one standard deviation below and one standard deviation above the mean of self-control. At one standard deviation below the mean of self-control, participants elected to evaluate fewer products in the completed task condition than in the incomplete task condition ($\beta = 27.24, p < .01$). At one standard deviation above the mean of self-control, participants elected to evaluate more products in the completed task condition than in the incomplete task condition ($\beta = -27.94, p < .01$).
**Discussion**

We hypothesized that low and high self-control people would construe an initial, volitional behavior in different ways. Low self-control people are more likely to construe a volitional behavior as an obligation to work (i.e., extrinsically motivated). Successful completion of the volitional behavior should result in poorer regulation of subsequent behavior because depletion accrues with completion, whereas the perception that the volitional behavior is ongoing should not impact regulation. High self-control people are more likely to construe a regulatory behavior as an opportunity to have fun (i.e., intrinsically motivated). Successful completion of the volitional behavior should result in better regulation of subsequent behavior because of the vitality that accrues from completion, whereas the perception that the volitional behavior is ongoing should not enhance regulation. This result was observed whether the initial act required delaying gratification (experiment 1A) or sustaining performance (experiment 1B).

The results of the first study are inconsistent with a perspective based solely on goal activation (e.g., Ramanathan and Menon 2006). For example, if the candy in experiment 1A activated an indulgence goal for low-self control people, then interrupting the initial task related to this goal should have encouraged more, not less, candy consumption owing to temporal escalation. The results are also inconsistent with Muraven et al.’s (2008) deficit-based perspective. Muraven et al. (2008) should predict a main effect of self-control, but no influence of task completion (i.e., an equal amount of effort was expended in the incomplete and complete conditions).

The manipulation checks indicate that perceived depletion is related to an individual’s self-control, but not to the state of initial task completion. This finding is important because it rules out the possibility that interrupting a rewarding task for high self-control people was in
some way depleting. Manipulation checks also indicated that self-control influenced stress and anxiety, but that these responses were not influenced by the state of initial task completion. This makes it unlikely that these experiences were responsible for subsequent behaviors. The analyses involving conscientiousness, impulsivity, self-esteem, and perfectionism suggest that these variables cannot account for the results.

A final concern relates to an assumption about the product evaluation task in experiment 1b. We assumed that all participants perceived the product evaluation task as work (e.g., effortful). This assumption seems to be at odds with our assumption that individual differences in self-control can influence perceptions of a task as work or fun. We contend that individual differences create perceptual tendencies, not perceptual absolutes, thus, tasks can be perceived as work or fun independent of these differences. A separate test ($N = 102$) supported this assumption. Participants experienced the experiment 1b procedure with one difference – one-half of the participants were told the product evaluation task was fun prior to starting it. After participants had evaluated 10 products, the procedure was stopped and participants were asked about their perceptions of the task as work and fun. The slope of self-control was not significant in the no frame or the fun frame condition for the work ($\beta_{\text{No Frame}} = -0.10, p > .37, \beta_{\text{Fun Frame}} = -0.33, p > .13$) or fun ($\beta_{\text{No Frame}} = -0.07, p > .40; \beta_{\text{Fun Frame}} = -0.12, p > .34$) measure. However, both high self-control and low self-control participants perceived the task to be more of an obligation to work ($\beta_{\text{HSC}} = -1.99, p < .01, \beta_{\text{LSC}} = -1.55, p < .01$) and less of an opportunity to have fun ($\beta_{\text{HSC}} = 2.17, p < .01, \beta_{\text{LSC}} = 2.27, p < .01$) in the no frame than the fun frame condition. The fact that the product evaluation task was perceived as more work, and less fun, in the no frame condition than the fun frame condition suggest the product rating task was effortful for all participants.
EXPERIMENT 2

An implicit assumption of hypothesis 1 is that low and high self-control people construe volitional acts differently. In experiment 1A, low self-control people construed the candy rating task (task 1) as an obligation to work (i.e., extrinsically motivated), whereas high-self control people construed the candy rating task as an opportunity to have fun (i.e., intrinsically motivated). If task construal is malleable, then it should be possible to encourage high self-control people to behave like low self-control people. In experiment 2, the initial candy rating task was unframed (as in experiment 1A) or framed to be an obligation to work. Framing the initial candy rating task as an obligation to work should encourage all participants, regardless of their level of self-control, to exhibit more regulatory failure after completing the task, as opposed to believing the task was incomplete.

Method

Participants and Design. Participants were 196 undergraduate business students who participated in exchange for course credit. The experiment used a three-factor design. The participant’s level of self-control was a measured variable, while the framing of the initial task (none versus work frame) and task completion (complete versus incomplete) were manipulated between-subjects.

Procedure. The study replicated the procedure of experiment 1A with one exception. Before performing the initial candy rating task, the task was framed as regulatory or not. In the no frame, control condition, participants were told that the Institutional Review Board of the University recommended that they limit their consumption to one piece of candy in each part of the candy experiment. Given that this was a recommendation and not an imposition, it was thought that this framing would allow participants to construe the initial task as an obligation to
work (low self-control people) or as an opportunity to have fun (high self-control people). This condition was identical to experiment 1a, except for the recommended consumption quantity.

In the work frame condition, an effort was made to encourage all participants to construe the candy tasting as an obligation to work. Participants were told that the Institutional Review Board of the University determined that students should be actively involved in determining how much candy they should eat. Participants were then asked to indicate the minimum number of Skittles and M&M’s they needed in order to perform the candy experiment. In choosing the minimum, participants were forced to create a regulatory standard that was lower than the amount that they might typically eat. Note that the no frame procedure was designed to be as similar to the work frame procedure as possible, the primary difference being the setting of the regulatory minimum in the work frame procedure. The remainder of the procedure, including the 20-minute filler study and the measure of self-control, was the same as that of experiment 1A. The amount of candy eaten was the dependent measure.

Results

*Manipulation Check.* The manipulation check procedure was identical to the experiment 1A manipulation check procedure. An independent sample of 171 participants was used to assess whether perceptions of the obligation to work or the opportunity to have fun varied by condition. The expected task frame by self-control interaction was significant for the work measure ($\beta = .59, p < .05$). The slope of self-control was significant and negative in the no frame condition ($\beta = -.49, p < .01$), but not in the work frame condition ($\beta = .32, p > .32$). Low self-control participants did not show any difference between the no frame and the work frame conditions ($\beta = -.01, p > .48$), while high self-control participants perceived the task to be more of an obligation to work in the work frame condition ($\beta = -1.04, p < .01$). The expected task frame by
self-control interaction was also significant for the fun measure ($\beta = -.68, p < .05$). The slope of self-control was significant and positive in the no frame condition ($\beta = .87, p < .01$), but not in the work frame condition ($\beta = .19, p > .19$). Low self-control participants did not show any difference between the no frame and the work frame conditions ($\beta = -.05, p > .43$), while high self-control participants perceived the task to be less of an opportunity to have fun in the work frame condition ($\beta = 1.11, p < .01$). All other measures mimicked the results of the experiment 1A manipulation checks.

**Minimum Standard.** Participants in the work frame condition were asked to set a minimum standard for the number of pieces of candy they would consume. The average number of pieces for these participants was 1.59 and this did not vary as a function of self-control ($\beta = .02, p > .77$).

**Analysis.** The amount of candy eaten was regressed on task frame, the individuals’ self-control index, task completion, and the two-way and three-way interactions. The results are presented in figure 2. There was a significant interaction of the task frame, self-control, and the task completion variables ($\beta = -15.54, p < .05$). In order to clarify the nature of this interaction, we performed regressions for each task frame condition. In the no frame condition, there was an interaction between the self-control and the task completion factors ($\beta = 16.22, p < .01$). At one standard deviation below the mean of self-control, participants ate more in the completed task condition than in the incomplete task condition ($\beta = -15.92, p < .01$). At one standard deviation above the mean of self-control, participants ate less in the completed task condition than in the incomplete task condition ($\beta = 15.91, p = .01$). This replicates the results of experiment 1A. In the work frame condition, there was no interaction between the self-control and the task completion factors ($\beta = 2.82, p > .58$). As predicted, there was a main effect of task completion ($\beta$
People that perceived they had completed the initial task ate more than people that perceived the initial task was incomplete.

**Discussion**

The results of experiment 2 show that an initial, effortful behavior can be construed according to the natural tendencies of a person or be determined by contextual factors. When the context was ambiguous, low (high) self-control participants construed an initial candy rating task as an obligation to work (opportunity to have fun). This resulted in low (high) self-control participants having less (more) self-control after completing (not completing) the candy rating task. When the context encouraged the participant to set a minimum regulatory standard, participants became more likely to perceive the candy tasting task as an obligation to work and task completion resulted in less self-control.

**EXPERIMENT 3**

Experiment 2 showed that high self-control people could be encouraged to behave like low self-control people when an initial, volitional behavior was framed as an obligation to work. In experiment 3, an initial, volitional behavior was framed to be an opportunity to have fun. The choice problems in experiment 1B were left unframed or framed as a fun behavior. Framing the choice problems as fun should encourage all participants, regardless of their level of self-control, to exhibit more regulatory control when the initial task was perceived as complete, as opposed to incomplete.

**Method**
Participants and Design. Participants were 251 undergraduate business students who participated in exchange for course credit. The experiment used a three-factor design. The level of self-control was a measured variable, while the framing of the initial behavior (none versus fun framing) and task completion (complete versus incomplete) factors were manipulated between-subjects.

Method. The study replicated the procedure of experiment 1B in the no frame condition. In the fun frame condition, the procedure was also the same, except that one sentence was added to the beginning of the choice study instructions. The sentence read: “The first study is a fun study involving hypothetical choices in several product categories.”

Results

Manipulation Check. The manipulation check procedure was identical to the experiment 1B manipulation check procedure. An independent sample of 167 participants was used to assess whether perceptions of the obligation to work or opportunity to have fun varied by condition. The expected frame by self-control interaction was significant for the work measure ($\beta = .53, p < .05$). The slope of self-control was significant and negative in the no frame condition ($\beta = -.68, p < .01$), but not in the fun frame condition ($\beta = -.15, p > .21$). High self-control participants did not show any difference between the no frame and the fun frame conditions ($\beta = -.07, p > .42$), while low self-control participants perceived the task to be more of an obligation to work in the no frame condition ($\beta = -.98, p < .01$). The expected frame by self-control interaction was also significant for the fun measure ($\beta = -.51, p < .05$). The slope of self-control was significant and positive in the no frame condition ($\beta = .41, p < .01$), but not in the fun frame condition ($\beta = -.10, p > .29$). High self-control participants did not show any difference between the no frame and the fun frame conditions ($\beta = -.02, p > .47$), while low self-control participants perceived the task as
more of an opportunity to have fun in the fun frame condition ($\beta = 1.00, p < .01$). All other measures mimicked the results of the experiment 1B manipulation checks.

**Analysis.** The number of products viewed and evaluated was regressed on task frame, the individuals’ self-control index, task completion, and the two-way and three-way interactions. The results are presented in figure 3. Again, the y-axis is set from high to low so that higher points on the graph correspond to more regulatory failure. There was a significant interaction between the task type, self-control, and task completion variables ($\beta = 24.56, p < .01$). In order to clarify the nature of this interaction, we performed regressions for each task frame condition. In the no frame condition, there was an interaction between the self-control and the task completion factors ($\beta = -25.21, p < .01$). At one standard deviation below the mean of self-control, participants were willing to evaluate fewer products in the completed task condition than in the incomplete task condition ($\beta = 25.49, p < .01$). At one standard deviation above the mean of self-control, participants were willing to evaluate more products in the completed task condition than in the incomplete task condition ($\beta = -29.00, p < .01$). These findings replicate the results of experiment 1B. In the fun frame condition, there was no interaction between the self-control and the task completion factors ($\beta = -.65, p > .89$). There was a main effect of task completion ($\beta = -18.12, p = .01$). Participants that perceived the initial task as complete evaluated more products than participants that thought they had not completed the task.

***************
Place figure 3 about here
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**Discussion**

Similar to experiment 2, the results show that an initial task can be construed according to the natural tendencies of a person or be determined by contextual factors. When the context was
ambiguous, low (high) self-control participants construed the initial choice task as an obligation to work (opportunity to have fun). This resulted in low (high) self-control participants having less (more) self-control after completing the choice task. When the context encouraged the participant to view the initial task as fun, completing the task resulted in more self-control.

**EXPERIMENT 4**

Experiments 1B and 3 showed that perceived task completion can lead to disengagement from a mundane product rating task when a person is low in self-control, but sustained engagement in a mundane product rating task when a person in high in self-control. We argued that the initial, difficult choice task was perceived as an obligation to work for those with low self-control, but as an opportunity to have fun (i.e., create vitality) for those with high self-control. If this is so, we should be able to alter the behavior of these two types of people by altering the difficulty of the initial choice task. If the initial choice task is made easier, it should not be as much work for the low self-control people and they should be more willing to sustain performance on the mundane product rating task. In contrast, an easier initial choice task should not generate as much vitality for the high self-control people, so they should cease performance on the mundane product rating sooner.

**Method**

*Participants and Design.* Participants were 155 undergraduate business students who participated in exchange for course credit. The experiment used a two-factor design. The participant’s level of self-control was a measured variable, while the difficulty of the initial task (difficult vs. easy) was manipulated between-subjects.
**Method.** The procedure involved the unframed, “completed task” conditions of experiments 1B and 3 (i.e., every participant received feedback that the task had been completed). In the difficult initial task condition, participants made the same four choices involving difficult trade-offs as they made in the previous experiments. In the easy task condition, participants made four choices in the same product categories, except that the choices did not involve difficult trade-offs. In the easy choice condition, the compromise choice was made more attractive on each of the attributes (see appendix A).

**Results**

**Manipulation Check.** The manipulation check procedure was identical to that used in experiment 1B. An independent sample of 145 participants was used to assess whether perceptions of the obligation to work or opportunity to have fun varied by condition. The task difficulty by self-control interaction was significant for the work measure ($\beta = .92$, $p < .01$). The slope of self-control was significant and negative in the difficult condition ($\beta = -.45$, $p < .01$), but positive in the easy condition ($\beta = .47$, $p < .01$). High self-control participants perceived the task to be more of an obligation to work in the easy condition ($\beta = -.96$, $p < .01$), while low self-control participants perceived the task to be more of an obligation to work in the difficult condition ($\beta = .77$, $p < .01$). The expected difficulty by self-control interaction was also significant for the fun measure ($\beta = -.89$, $p < .01$). The slope of self-control was significant and positive in the difficult condition ($\beta = .33$, $p < .01$), but negative in the easy condition ($\beta = -.56$, $p < .05$). High self-control participants perceived the task to be more of an opportunity to have fun in the difficult condition ($\beta = .96$, $p < .01$), while low self-control participants perceived the task to be more of an opportunity to have fun in the easy condition ($\beta = -.71$, $p < .05$). All other measures mimicked the results of the experiment 1B manipulation checks. Participants from the
actual experiment perceived the study to be significantly easier in the easy task condition \((M = 4.22)\) than in the difficult task condition \((M = 5.05; t(154) = 5.95, p = .01)\).

*Analysis.* The number of products viewed was regressed on the individuals’ self-control index and the difficulty of the initial task. The results are presented in figure 4. There was a significant interaction between the self-control and task difficulty variables \((\beta = -25.48, p < .01)\). At one standard deviation below the mean of self-control, participants elected to evaluate more products in the difficult task condition than in the easy task condition \((\beta = 28.29, p < .01)\). At one standard deviation above the mean of self-control, participants elected to evaluated more products in the easy task condition than in the difficult task condition \((\beta = -18.10, p < .01)\).

Discussion

The results of experiment 4 show that it is the performance of the volitional behavior, not simply its construal, that depletes or energizes. For low self-control participants, making the initial task easier resulted in less perceived work, less depletion, and more regulatory control. As a consequence, low-self control participants were better able to sustain performance on the mundane product rating task after performing an easy as opposed to a hard task. For high self-control participants, making the initial task easier resulted in less perceived fun, less vitality, and less regulatory control. As a consequence, high-self control participants were less able to sustain performance on the mundane product rating task after performing an easy as opposed to a hard task.

EXPERIMENT 5
We propose that high self-control people are more likely to be intrinsically motivated, while low self-control people are more likely to be extrinsically motivated, in many of their volitional behaviors. In experiment 5, we manipulated the locus of the reward in order to influence the motivation for the initial volitional behavior. By providing people with an extrinsic reward for performing the initial task, we sought to shift the motivation from intrinsic to extrinsic. We predicted that this shift to an extrinsic reward would reduce the vitality that accrues from performing the behavior (Deci, Kostner, and Ryan 1999). High self-control people should behave like low self-control people when the reward is extrinsic.

Method

Participants and Design. Participants were 304 undergraduate business students who participated in exchange for course credit. The experiment used a three-factor design. The participant’s level of self-control was a measured variable, while the task completion (complete versus incomplete) and feedback (none versus extrinsic reward) factors were manipulated between-subjects.

Method. In the no feedback condition, the procedure was identical to the procedure of experiment 1B. In the extrinsic feedback condition, the procedure was similar except that participants received additional feedback after having made the first two and second two choices of the initial task. In the completed task condition, participants were told “Thanks for completing the first choice study. Click on the continue button to start the next choice study. Again, make sure you pay attention to the attribute values of each product.” In the incomplete task condition, participants were told “Thanks for making these choices. Click on the continue button in order to make more choices. Again, make sure you pay attention to the attribute values of each product.” Similar feedback was repeated after participants had made their fourth choice.
Results

Manipulation Check. The manipulation check procedure was identical to that of experiment 1B. A sample of 139 participants was used to assess whether perceptions of the obligation to work or opportunity to have fun varied by condition. The expected feedback by self-control interaction was significant for the work measure ($\beta = 1.17, p < .01$). The slope of self-control was significant and negative in the no feedback condition ($\beta = -.91, p = .01$), but not in the extrinsic reward condition ($\beta = .26, p > .05$). Low self-control participants did not show any difference between the no feedback and the extrinsic reward conditions ($\beta = -.63, p > .05$), while high self-control participants perceived the task to be more of an obligation to work in the extrinsic reward condition ($\beta = 1.36, p < .01$). The expected feedback by self-control interaction was also significant for the fun measure ($\beta = -1.30, p < .05$). The slope of self-control was significant and positive in the no feedback condition ($\beta = 1.29, p < .01$), but not in the extrinsic reward condition ($\beta = -.01, p > .05$). Low self-control participants did not show any difference between the no feedback and the extrinsic reward conditions ($\beta = .43, p > .05$), while high self-control participants perceived the task to be less of an opportunity to have fun in the extrinsic reward condition ($\beta = -1.79, p < .01$). All other measures mimicked the results of the experiment 1B manipulation checks.

Analysis. The number of products viewed and evaluated was regressed on feedback, the individuals’ self-control index, task completion, and the two-way and three-way interactions. The results are presented in figure 5. There was a significant interaction of the feedback, self-control, and task completion variables ($\beta = 24.15, p < .01$). In order to clarify the nature of this interaction, we performed regressions for each feedback condition. In the no feedback condition, there was an interaction between the self-control and the task completion factors ($\beta = -22.61, p <$
.01). At one standard deviation below the mean of self-control, participants were willing to evaluate fewer products in the completed task condition than in the incomplete task condition ($\beta = 15.03, p < .01$). At one standard deviation above the mean of self-control, participants were willing to evaluate more products in the completed task condition than in the incomplete task condition ($\beta = -21.73, p < .01$). These results replicate experiment 1B. In the extrinsic reward condition, there was no interaction between the self-control and the task completion factors ($\beta = 1.53, p > .84$). There was a main effect of task completion ($\beta = 13.26, p < .05$). People that perceived the initial task as complete evaluated fewer products than people that thought the task was incomplete.

Discussion

Similar to experiment 2 and 3, the results show that tasks can be intrinsically or extrinsically motivated. Yet, unlike the earlier studies, task motivation was manipulated by providing feedback during the performance of the task. Providing positive feedback during the performance of an initial choice task encouraged high self control participants to perceive the task as work instead of fun. The shift in perception, and the locus of motivation, made high self-control people behave like low self-control people. These results are consistent with demonstrations that show extrinsic rewards can reduce intrinsic, and increase extrinsic, motivation (Deci, Kostner, and Ryan 1999).

GENERAL DISCUSSION
Low self-control and high self-control people often construe their worlds differently. Low self-control people perceive many behaviors (e.g., making difficult product choices, eating in moderate quantities) as taxing and difficult (i.e., depleting). Upon completion of a taxing behavior, a low self-control person is more likely to exhibit regulatory failure. High self-control people perceive many of the same behaviors as challenging and rewarding (i.e., generate vitality). Upon completion of a challenging behavior, the high self-control person is likely to sustain regulatory control. Yet, when a low (high) self-control person lacks the opportunity to complete the behavior, depletion (vitality) does not impact subsequent behavior. Evidence for these processes comes from the behavior of low and high self-control people (experiment 1). In addition, framing behaviors as work (experiment 2) and shifting the locus of reward to extrinsic (experiment 5) encourages high-self control people to exhibit less self-control people, while framing behaviors as fun encourages low self-control people to exhibit more self-control (experiment 3).

The results suggest that existing assumptions about regulation, and the processes responsible for it, may have to be amended. First, it appears that an identical behavior can result in depletion and subsequent regulatory difficulty or in vitality and subsequent regulatory success. Whether a volitional behavior results in depletion or vitality depends on the motivation (e.g., extrinsic, intrinsic) for performing the behavior. Second, the state of a behavior (e.g., incomplete, complete), in conjunction with the amount of effort required to complete a behavior, determines the amount of depletion or vitality a consumer experiences. It is as if depletion and vitality cannot be “banked” until the behavior is recorded as complete. Third, the motivation for a behavior and the perceived state of a behavior are malleable. Motivation for a volitional behavior is established prior to starting a behavior, but can be updated or amended during the course of
executing the behavior (e.g., Experiment 4). Likewise, the standards for completion of a task can be established after the performance of a task. The implication is that the regulatory system is highly malleable.

It is interesting to speculate on why a regulatory system might be sensitive to subjective cognitive events, like the source of motivation or the level of task completion. We believe this malleability is part of a basic behavior regulation system. To appreciate this claim, start with the observation that people can act in their own self-interest (intrinsic motivation) or in the interest of others (extrinsic motivation). If people acted only in their own self-interest, or only in the interest of others, it would have been difficult for the person and/or species to survive. There must be a balance between these two types of behaviors. Thus, the motivational system should be designed to encourage self-relevant behavior (i.e., provide vitality), but at the same time set limits on the intrinsic rewards realized from these behaviors (i.e., limit vitality maximization). It may be that people have the ability to reframe behaviors from complete to incomplete, or to locate sources of extrinsic motivation, so as to manage vitality maximization. Of course, it is also useful to be able to reframe incomplete behaviors as complete, or to ignore sources of external motivation, so as to generate vitality when needed. Thus, it may be that a malleable regulatory system allows an individual to be personally and socially valuable.

The research also has some practical implications. Consider treatment programs designed to regulate eating, drinking, gambling, etc. Some of these treatment programs emphasize strictly regimented routines. For example, many diet plans make food consumption more like work and less like fun, hence, increase the depletion experienced when executing the eating behaviors. In effect, framing the dieting process as work increases the chance of regulatory failure. This might explain why the average dieter is 11 pounds heavier than their pre-diet weight five years after
successful weight loss (Mann et al. 2007). Some dieting programs may be teaching routines that result in depletion. Dieting programs, like all regulation programs, might be more successful if they were to emphasize the “fun” of regulatory behavior. Likewise, framing a dieting program as ongoing (e.g., maintain your weight) as opposed to complete (e.g., reach a target weight of X) should be more effective.

Regulation should also be more successful when a consumer is encouraged to adopt an intrinsic, as opposed to extrinsic, motivation for the regulatory behavior. Deci and Ryan (2000) argue that a felt sense of autonomy (i.e., that the regulatory act is volitional and consistent with the person’s sense of self) promotes regulation because it promotes intrinsic motivation. An emphasis on autonomy leads to long-term weight loss (Williams et al. 1996), diabetes control (Williams et al 2004), and smoking cessation (Williams et al. 2002). The public policy challenge is to find ways to encourage people to feel autonomous in their self-control efforts. Regulatory behavior motivated by social norms (e.g., look good), significant others (e.g., do it for you family), or social responsibility (e.g., don’t hurt others), will be less effective than regulatory behavior that is motivated by personal reasons (e.g., feel energetic, happy, successful).

In summary, there are a number of ways to think about how consumers fail or succeed at their self-control pursuits. Although the depletion metaphor is a useful framework for anticipating the factors that encourage and discourage regulatory failure, it is limiting in that it fails to recognize that perceptual experience is malleable. Behaviors that are depleting for some may be inherently rewarding to others. Moreover, behaviors that are depleting on some occasions may create vitality on other occasions. The challenge is to learn how to frame behaviors, or teach consumers how to frame behaviors, so as to create a more effective balance
between depletion and vitality. Framing behaviors and as work or fun is one mechanism for achieving this balance.
## APPENDIX A

### DIFFICULT TRADE-OFF CHOICES

<table>
<thead>
<tr>
<th>Categories/Attributes</th>
<th>Option A</th>
<th>Option B</th>
<th>Option C</th>
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## EASY CHOICES

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REFERENCES


*Psychological Inquiry*, 7 (1), 1-15.


FIGURE 1

RESULTS OF EXPERIMENTS 1A AND 1B

NOTE. — In experiment 1A (1B), higher (lower) values represent less self-control. Low self-control and high self-control values are +/- one standard deviation from the mean.
FIGURE 2
RESULTS OF EXPERIMENT 2

NOTE. — Higher values represent less self-control. Low self-control and high self-control values are -/+ one standard deviation from the mean.
FIGURE 3
RESULTS OF EXPERIMENT 3

NOTE. — Lower values represent less self-control. Low self-control and high self-control values are -/+ one standard deviation from the mean.
FIGURE 4

RESULTS OF EXPERIMENT 4

NOTE. — Lower values represent less self-control. Low self-control and high self-control values are +/- one standard deviation from the mean.
FIGURE 5

RESULTS OF EXPERIMENT 5

NOTE. — Lower values represent less self-control. Low self-control and high self-control values are +/- one standard deviation from the mean.