

So Close Yet So Far Away: The Moderating Effect of Regulatory Focus Orientation on Health Behavioral Intentions

My Bui*

Loyola Marymount University

Anjala S. Krishen*

University of Nevada, Las Vegas

ABSTRACT

The purpose of this study is to further understand ideal self-goals and regulatory focus orientation within the context of consumer health decisions. To do so, the present research examines the intersection of ideal weight goal progress and regulatory orientation on consumer health-related decisions. Across two experimental studies, findings suggest that those far away from their ideal weight goals are more inclined to participate in adaptive health behaviors. The first study shows that individuals are calibrated in terms of their health goals. Specifically, when they are far away from their ideal weight, they want to eat healthier and exercise. However, their health goals are not calibrated appropriately in the presence of regulatory incongruence of individual regulatory orientation and promotion type. Specifically, prevention-oriented individuals do not report the appropriate outcome expectation of the goal pursuit; instead, the present study finds that they do not want to increase exercise even when they are far from their health goal. Implications are provided for consumers and promotional marketing managers. © 2015 Wiley Periodicals, Inc.

More than one-third of the entire population of the United States is obese, as of 2011. To make matters worse, obesity rates doubled between 1980 and 2000 and have continued to increase since then (Ogden, Carroll, Kit, & Flegal, 2012). Unfortunately, in the United States, the Healthy People 2010 goals of 15% obesity among adults and 5% obesity among children are not even close to a reality (U.S. Department of Health and Human Services [USDHHS], 2011). Research shows that the two leading causes of obesity across all populations are unhealthy eating and physical inactivity (Swinburn et al., 2011). Swinburn et al. explain that the obesity pandemic is a natural result of the environment and that without proper support and appropriate mechanisms for prevention, people will be unable to counteract this epidemic. Not only are the health problems associated with obesity a staggering issue, but the economic costs are also increasing at a phenomenal pace. Cawley and Meyerhoefer (2012) estimate that obesity utilizes 21% of all medical spending in the United States, totaling \$147 billion in 2008 alone, or an additional \$1429 over the medical costs of a healthy individual per obese one. In addition to the physical and

monetary costs associated with obesity, individuals also face emotional and social costs, such as increased body image dissatisfaction and lowered self-esteem (Kemp, Bui, & Grier, 2013; Krishen & Worthen, 2011; Nyer & Dellande, 2010), which can eventually lead to medically unnecessary aesthetic surgery (Rountree & Davis, 2011). Even though studies show that there are many antecedents to weight loss commitment and intention to exercise, including public commitment, social norms, attitude, and eagerness, existing research does not address the issues associated with weight goal gaps and regulatory focus (Fitzmaurice, 2005).

Existing literature on individual goal pursuit as related to health identifies a *health goal* as one related to becoming healthier, whether that includes increasing an appetite for healthy foods (Finkelstein & Fishbach, 2010), controlling weight gain (Campbell & Mohr, 2011), or increasing body image satisfaction (Krishen & Worthen, 2011). Some research suggests that motivation and pursuit toward achieving an ideal health goal may be influenced by the perception of distance to the goal (Bagozzi & Edwards, 2000; Fishbach & Dhar, 2005) and that regulatory focus state and trait

contribute to motivational predispositions (Higgins, 1997; Lockwood, Jordan, & Kunda, 2002). However, no research to date examines the intersection of goal progress and regulatory focus/orientation on health behaviors. To address the issue of obesity, we present two experimental studies that address proximity to ideal weight goals, indulgent eating, and regulatory focus orientation. The purpose of our study is to further our understanding of ideal self-goals and regulatory focus orientation within the context of consumer health decisions.

THEORETICAL FRAMEWORK AND HYPOTHESES

Progress towards a Health Goal

Research shows that perceived goal attainability is an important factor that individuals consider as they deliberately attempt to progress towards goal completion (Tam & Spanjol, 2012). For most individuals, the difference between perceived and actual goal progress, much like the one between perceived and actual body image, is naturally laden with introspection and self-generated bias. In fact, across four experiments, Huang, Zhang, and Broniarczyk (2012) demonstrate that individuals are systematically biased in the mental representation of their perceived goal progress. If an individual has a larger perceived distance from their goal, they will likely perceive their task at hand as more difficult. As a strategy for dealing with this bias, our studies approach goal progress in two different ways; Study 1 utilizes a perceived goal progress manipulation (Fishbach & Dhar, 2005) and Study 2 measures actual goal progress. This perception of increased task difficulty actually increases motivation toward goal implementation intentions (Bagozzi & Edwards, 2000). For example, Liu, Tsou, and Hammitt (2009) contend that individuals with higher body weight and adverse personal weight perception are willing to pay more for weight control interventions. Further, research shows that consideration of temporal distance (far vs. near goal) plays a key role in motivation and willingness to pay for means of attaining desired health and fitness goals (Etkin & Ratner, 2013).

Although individuals cognitively elaborate on ways to be healthy and the negative effects of not having self-control, such desires are often laden with short- versus long-term goal conflicts. In the short term, an individual might have a simple goal related to appetite satisfaction, whereas in the long term, that same individual may want to lose weight or increase exercise frequency (Ramanathan & Williams, 2007). Even given these competing goals and the resultant goal conflict, individuals rely on commitment and progress toward their goals to determine their goal prioritization (Fishbach & Dhar, 2005). Investing in a goal tends to create greater commitment toward that goal; on the other hand, when

individuals feel that they have made progress toward a goal, they are less likely to pursue it and might prioritize a competing goal above it (Finkelstein & Fishbach, 2010). In terms of our research, this means that if an individual considers himself far away from his ideal weight, he should infer that he has not attained goal fulfillment and should therefore want to increase exercise or eat healthier.

Not only does motivation toward a goal consist of cognitive deliberations regarding perceptions of distance toward the ideal goal, but also it includes affective components toward the goal. Bui, Kemp, and Howlett (2011) maintain that positive affective responses are associated with encouraging exercise, more specifically that previous memory contributing to emotional response knowledge structures influences overall attitude toward exercise. As people have more favorable attitudes regarding the process that leads to the health and dieting goal, they tend to have stronger intention to behave toward their diet goals (Bagozzi, Moore, & Leone, 2004). Further, when exercise is processed in a more positive way, it directly enhances the likelihood that people will engage in it (Yin & Boyd, 2000). Therefore, far from ideal weight goal individuals should be more likely to pay more for a healthy meal and to exercise, so we hypothesize:

- H₁:** Subjects in the far from ideal weight condition will have higher willingness to pay for a healthier meal (i.e., [a] dinner, [b] breakfast, and [c] lunch) than those in the near ideal weight condition.
- H₂:** Subjects in the far from ideal weight condition will have more favorable (a) attitudes toward exercise and (b) overall attitudes toward engaging in a more active lifestyle than those in the near ideal weight condition.

Within the context of health-related decisions, perceived distance toward an ideal health goal contributes to overall evaluations and motivations toward achieving the goal. As such, context (whether internally or externally attributed) provides a foray of (de)motivation toward moving away from or toward the ideal health goal. Given that the environment is littered with consumption priming cues that people habituate, an understanding of how exposure to health-related information impacts consumers is pivotal to further dissect health behaviors. When seeking to regulate their consumption, individuals attempt to exert self-control regarding their indulgence intentions so as to achieve their health goals. However, as research shows, the mere exposure to indulgent foods spontaneously activates indulgence intentions (Wilcox, Kramer, & Sen, 2011). Such goal conflict creates tension between the actual and ideal state goals. As such, negative affective responses induce immediate indulging impulses to remedy short-term affect, thus delaying self-regulatory goals (Tice, Bratslavsky, & Baumeister, 2001).

Moreover, research demonstrates that consumers will try to seek justification for indulgent behaviors (Belk, Ger, & Askegaard, 2003) even though they may feel guilty about them.

The food industry continues to respond to consumer indulgence intentions by introducing new ways to indulge, for example, many companies are now offering *healthful indulgences* such as dark chocolate covered fruits (Glassman, 2013). In lieu of this new offering, Belei, Geyskens, Goukens, Ramanathan, and Lemmink (2012) find that when healthfully indulgent offerings are made to consumers using hedonic claims, they are more likely to surpass their long-term self-control goals and pursue their short-term indulgent ones. Thus, when participants are exposed to indulgent foods, we predict:

H₃: Subjects who are exposed to the indulgent condition will report greater intentions of indulgence than those who are exposed to the nonindulgent condition.

Regulatory Focus Theory

At the most fundamental level, individuals have a motivational orientation that determines how they go about achieving their goals. A goal pursuit explanation called regulatory focus theory claims that people are characterized as having primarily two different types of goal attainment orientations, namely, promotion, or prevention (Higgins, 1997). In particular, prevention-focused individuals tend to view goals as duties and obligations and want to avoid the risk of failure, whereas promotion-oriented ones view them as hopes or aspirations and want to approach them to achieve success (Adams, Fasseur, & Geuens, 2011).

Research shows that self-regulatory focus consists of both state (manipulated) and trait (individual differences) measures. For example, promotion (e.g., hope) versus prevention (e.g., fear) framed campaigns can be designed to highlight either avoiding a negative consequence or approaching a positive one (Krishen & Bui, 2015; Krishen, Raschke, & Mejza, 2010; Zhao & Pechmann, 2007). With respect to static or chronic self-regulatory motivational predisposition, Lockwood, Jordan, and Kunda (2002) provide a scale by which to categorize individuals as predominantly prevention versus promotion focused. In addition to providing a chronic trait, this individual differences variable categorizes a fundamental motivational predisposition, which influences virtually all consumer decisions (Bargh, Bond, Lombardi, & Tota, 1986). Prevention compared to promotion focus oriented individuals tend to prefer the *status quo*, since they are risk averse and want to minimize the possibility of a negative outcome when making a decision. Yi and Baumgartner (2008) show that when message framing is consistent with chronic regulatory focus, persuasion is increased. Specifically, research findings indicate that prevention-oriented individuals are less receptive to ad-

vice that may be useful to goal attainment compared to promotion-oriented individuals (Righetti, Finkenauer, & Rusbult, 2011). Moreover, prevention-focused individuals are less motivated to engage in effortful pursuits toward achieving goals and are unable to exhibit greater self-control (Dholakia, Gopinath, Bagozzi, & Natarajan, 2006). For example, Wilder and Webster (2011) show that prevention-oriented individuals increase their food portion sizes when introduced to a prevention primer. As such, when prevention-focused individuals are far away from their ideal weight goals, the evaluation of the outcome is less desirable compared to promotion-focused individuals. In line with this notion, Higgins (2000) indicates that prevention-focused individuals do not feel as positive about a goal outcome compared to promotion-oriented individuals, and as such, being far away from their ideal goal becomes even less desirable. In our case, prevention orientation coupled with those who are far from their goals becomes an unproductive combination, one in which increasing exercise is less likely to occur for the people who need it most. In line with this idea, we expect that those who are farther away from their ideal weight goal have lower intentions of exercising. Specifically, we propose:

H₄: Prevention-oriented individuals who are far away from their ideal weight goal will have lower intentions of increasing exercise compared to those who are near their ideal weight goal.

STUDY 1A AND 1B

Overview, Subjects, and Measures

After initial prescreening for only subjects interested in losing or gaining weight, a total of 161 students from the southern part of the United States qualified to participate in Study 1a. To increase overall generalizability and ecological validity of the study, a total of 83 subjects (76% nonstudents; 24% students) from the southwestern part of the United States participated in Study 1b. For Study 1a, the population consisted of 42.3% males and 55.8% females. Ages ranged from 19 to 31, with a mean age of 23. For Study 1b, the population consisted of 52.9% males and 47.1% females with the ages ranging from 20 to 54, with a mean of 24. A single factor (perceived goal progress: near ideal weight goal vs. far from ideal weight goal) between-subjects experimental design was used to test the hypotheses. Perceived goal progress was manipulated in Study 1a and 1b.

Study 1a tested the predictions concerning the effects of perceived goal progress on (H1a) willingness to pay more for a healthier dinner and (H2a) attitude toward exercise. Building upon Study 1a, Study 1b further examined the robustness of perceived goal progress impact on (H1b) willingness to pay more for a healthier breakfast and (H1c) lunch as well as

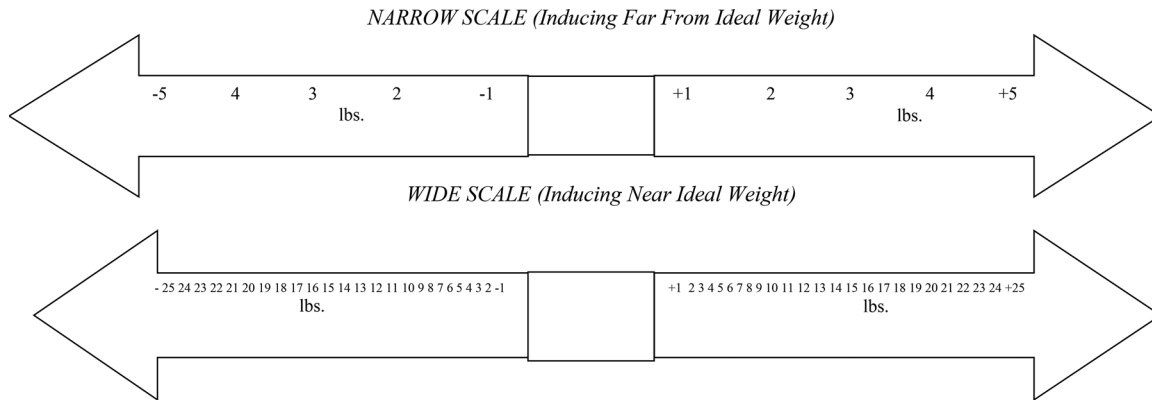


Figure 1. Study 1 perceived goal progress manipulations.

(H2b) overall attitude toward engaging in a more active lifestyle.

For the willingness to pay more measure, subjects reported their responses based on the question: “Assuming that you are interested in purchasing healthier foods, how much more are you willing to pay for a healthier meal for (a) *dinner*, (b) *breakfast*, and (c) *lunch*?” (Assume: Your typical *dinner* costs you \$10.00/meal; your typical *breakfast* costs you \$3.00/meal; and your typical *lunch* costs you \$5.00/meal.) A 9-point item ranged from \$0.00 to \$4.00 in \$0.50 increments for the question pertaining to *dinner*, while a 7-point item ranged from \$0.00 to \$3.00 in \$0.50 increments for the questions pertaining to *breakfast* and *lunch*. The willingness to pay more scale was partially adapted from the Netemeyer et al. (2004) willingness to pay a price premium scale with a coefficient $\alpha = 0.87$. For the attitude toward exercise, a 7-point, multi-item scale with endpoints consisting of “unfavorable/favorable,” “bad/good,” and “negative/positive” served as items for this adapted, validated measure (Homer, 1995). Reliabilities were appropriate with $\alpha = 0.89$ for the scale. Also adapted from Homer (1995), a 7-point, multi-item scale with endpoints of “bad/good” and “negative/positive” captured the overall attitude toward a more active lifestyle measure, with appropriate reliabilities ($\alpha = 0.91, p < 0.001$).

Procedure

The perceived goal progress manipulation was adapted from Fishbach and Dhar’s (2005) Study 1 (see Figure 1). This manipulation has been validated and referenced in numerous experimental studies since its inception (e.g., Koo & Fishbach, 2008; Wiebenga & Fennis, 2014). Participants were manipulated visually to feel a sense of either fast or slow progress toward their ideal weight goals. The fast progress toward one’s ideal weight condition caused the participant to feel that one was near his/her ideal weight, while the slow progress toward one’s ideal weight condition caused the participant to

feel as if one was far from his/her ideal weight. Subjects received either the narrow scale (i.e., endpoints of -5 lbs to $+5$ lbs) or the wide scale (-25 lbs to $+25$ lbs). Subjects were asked to fill in their current weight in the box presented to them in the middle of the scale, and then they were instructed to proceed by coloring in all the way to the point that represented their ideal weight. The narrow scale made participants believe that they did not make adequate progress toward their ideal weight goals, while the wide scale caused participants to believe that they had made adequate progress toward their ideal weight goals. For example, if a participant indicated that they wanted to lose 3 lbs, the discrepancy from the individual’s ideal weight goal appeared closer to their ideal weight on the wide scale (e.g., 12% away from their ideal weight goal) however much farther away from their ideal weight on the narrow scale (e.g., 60% away from their ideal goal).

Results—Study 1a

Manipulation Check for Perceived Goal Progress.

Of 161 participants who were interested in losing/gaining weight, subjects shaded in 69.6% (3.48 lbs) of the length were on the narrow scale, while 57.6% (14.4 lbs) of the length were shaded in the wide scale. Consequently, their ideal weight appeared to be visually farther away on the narrow scale relative to the wide scale (Fishbach & Dhar, 2005).

Hypothesis Tests. Univariate analysis of variance was conducted to assess the effects of perceived goal progress on willingness to pay more for a healthier dinner and overall attitude toward exercise. For *Willingness to Pay More for a Healthier Meal*, a main effect was found for perceived goal progress on willingness to pay more for a healthier dinner ($F(1, 155) = 4.00, p < 0.05$), with means indicating that participants in the far from ideal weight reported greater willingness to pay more for a healthier dinner than those manipulated to be near their ideal weight ($M = 6.07$ vs.

Table 1. Summary of Study 1 Results.

	<i>F</i> Values		Cell Means			
	Willingness to Pay More for Dinner	Attitude towards Exercise	Willingness to Pay More for Dinner	Attitude towards Exercise		
Study 1a						
Perceived goal progress	4.00 ^b	7.46 ^a				
Near ideal goal			5.29	5.98		
Far from ideal goal			6.07	6.41		
Study 1b						
	Willingness to pay more for breakfast	Willingness to pay more for lunch	Attitude toward more active lifestyle	Willingness to pay more for breakfast	Willingness to pay more for lunch	Attitude toward more active lifestyle
Perceived goal progress	4.18 ^a	4.25 ^a	7.46 ^a			
Near ideal goal				3.64	4.05	5.98
Far from ideal goal				4.50	4.83	6.38

^a*p* < 0.01.^b*p* < 0.05.

M = 5.29). This supports H1a. For *Attitude Toward Exercise*, an overall main effect was found for perceived goal progress on attitude toward exercise ($F(1, 155) = 7.46, p < 0.01$). Means indicate that participants manipulated to be far away from their ideal weight report more favorable attitudes toward exercise than those in the near ideal weight condition ($M = 6.41$ vs. $M = 5.98$), supporting H2a. See Table 1 for the associated *F*-values and means for the dependent variables.

Results—Study 1b

Manipulation Check for Perceived Goal Progress.

Of 83 participants, subjects shaded in 87.2% (4.36 lbs) of the length were on the narrow scale, while 43.2% (10.8 lbs) of the length were shaded in the wide scale. Consequently, their ideal weight appeared to be visually farther away on the narrow scale relative to the wide scale (Fishbach & Dhar, 2005).

Hypothesis Tests. Univariate analysis of covariance was conducted to assess the effects of perceived goal progress on willingness to pay more for a healthier breakfast and lunch as well as overall attitude toward engaging in a more active lifestyle. Covariates consisted of gender, age, employment, and (non)student status.

For *Willingness to Pay More for a Healthier Meal*, a main effect was found for perceived goal progress on willingness to pay more for a healthier breakfast ($F(1, 78) = 4.18, p < 0.05$), with means indicating that participants in the far from ideal weight reported greater willingness to pay more for a healthier breakfast than those manipulated to be near their ideal weight ($M =$

4.50 vs. $M = 3.64$). This supports H1b. Also confirming H1c, there was a main effect of perceived goal progress on willingness to pay more for a healthier lunch ($F(1, 78) = 4.24, p < 0.05$), with means indicating that participants in the far from ideal weight condition reported greater willingness to pay more for a healthier lunch compared to those near their ideal weight ($M = 4.83$ vs. $M = 4.05$).

For *Overall Attitude Toward Engaging in a More Active Lifestyle*, an overall main effect was found for perceived goal progress on overall attitude toward engaging in a more active lifestyle ($F(1, 77) = 4.99, p < 0.01$). Means indicate that participants manipulated to be far away from their ideal weight report more favorable attitudes toward engaging in a more active lifestyle than those in the near ideal weight condition ($M = 6.38$ vs. $M = 5.98$), supporting H2b. See Table 1 for the associated *F*-values and means for the dependent variables.

Discussion—Study 1

The results of Study 1 show that *perceived* goal progress impacts attitude and willingness to pay for healthier meals. More specifically, individuals manipulated to feel far away from their ideal weight goals are more likely to have more favorable attitudes toward exercise and engagement in more active lifestyles. Further, those perceiving farther away distance from their ideal weight goals are more likely to be willing to pay more for healthier meals. Given such differences between those near versus far from their ideal weight goals on attitudinal and willingness to pay behaviors, more research

Table 2. Study 2 manipulation examples.

Indulgent	The weekend is finally here and a group of college students decide to go to a favorite restaurant nearby for dinner. After everyone looks at the menu and decides to place their order, the waitress comes by to take it. One of the group members, Pat, who is particularly overweight, is the first to place an order. “May I have the fried chicken platter with French fries on the side please?”
Non-indulgent	The weekend is finally here and a group of college students decide to go to a favorite restaurant nearby for dinner. After everyone looks at the menu and decides to place their order, the waitress comes by to take it. One of the group members, Pat, who is particularly overweight, is the first to place an order. “May I have the grilled chicken platter with a side salad please?”

is needed to understand how *actual* goal progress can influence behavior as well as potential meditational factors that can influence the actual goal progress on behavior.

Additionally, to better understand consumption behaviors, examining factors such as regulatory focus orientation and food types can help further examine the robustness of these results as factors of context and individual attributes contribute to consumption patterns. In Study 2, we examine the effects of these manipulations in scenarios as well as moderational influences of regulatory focus orientation on *actual* goal progress and exercise.

STUDY 2

Overview, Subjects, Procedure, and Measures

Marketing research graduate students who were trained in data collection procedures served as data collectors for a quota convenience sample of nonstudents. This method has been utilized in previous marketing research (Bitner, Booms, & Tetreault, 1990; Jones, Reynolds, & Arnold, 2006; Mick, 1996). At local retailing outlets, data collectors asked customers to voluntarily participate in a survey. Subjects were randomly assigned to one of two conditions (see Table 2 for examples). A total of 122 nonstudent respondents from the southwestern part of the United States participated in the study. The population consisted of 40.2% males and 59.8% females. Ages ranged from 20 to 76 years, with a mean age of 35. A single factor (food type: indulgent vs. nonindulgent) between-subjects experimental design was used to test the hypotheses. Actual goal progress toward individual ideal goal weight and

regulatory focus orientation were measured variables. This study tested the predictions concerning the effects of regulatory focus orientation, actual goal progress, and food type on (H3) intention to indulge following an entrée. Additionally, as a follow-up to Study 1, Study 2 also tested the moderating influences of regulatory focus orientation on the goal progress to exercise intentions relationship (H4).

The intention to choose an indulgent dessert following the entrée construct consisted of a 7-point, multi-item scale with endpoints including “unlikely/likely,” “improbable/probable,” and “impossible/possible” for the adapted, validated scale (Szymanski, 2001). Coefficient $\alpha = 0.97$ for the indulgent intentions construct and is considered a reliable measure. Actual goal progress was also a self-reported measure consisting of “near your ideal weight goal” coded as “0” and “far from your ideal weight goal” coded as “1.” The regulatory focus orientation was a self-reported measure, with a validated 9-point, 18-item scale (cf., Lockwood, Jordan, & Kunda, 2002). “Prevention focus orientation” was coded as “0,” while “promotion focused orientation” was coded as “1.” The regulatory focus orientation measurement was reliable at $\alpha = 0.86$.

Results—Study 2

Manipulation Check for Food Type. Results of an ANOVA show that the manipulation check for food type was significant ($p < 0.001$) with means in the appropriate directions for the nonindulgent food (M (grilled chicken and side salad) = 1.80) versus the indulgent food (M (fried chicken and fries) = 7.56) manipulations.

Hypothesis Test. For Indulgence intentions, supporting H3, an overall main effect was found for food type on indulgence intentions ($F(1, 118) = 50.06, p < 0.001$), with means indicating that those in the indulgent condition reported greater intentions of indulgence following the entrée than those in the nonindulgent condition ($M = 7.49$ vs. $M = 4.96$).

Moderation Test. We used linear regression models to test the moderation effect of regulatory focus orientation (H4) as suggested by Hayes (2012). The key dependent variable was exercise intentions, measured with the adapted scale as intentions to indulge in Study 1. Actual ideal weight (0 = near ideal weight goal; 1 = far from ideal weight goal) and regulatory focus orientation (0 = prevention orientation; 1 = promotion orientation) were coded as indicator variables. Actual goal progress toward ideal weight and regulatory focus orientation were included as mean-centered independent predictors, as were the product interactions of these variables. We ran moderated regression analysis using a one-tailed test due to the directionality of the hypothesis. Promotion and prevention orientations were

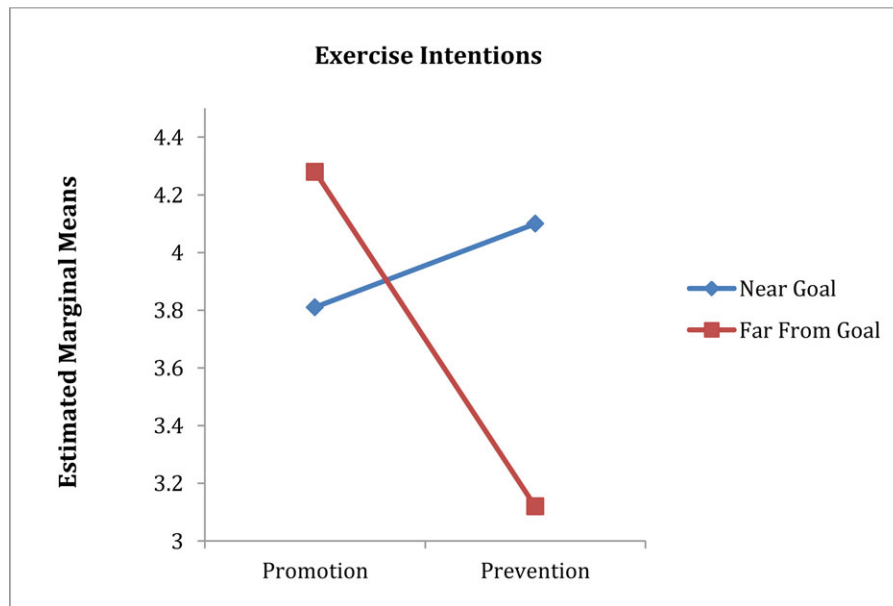


Figure 2. Study 2 moderation effect on increasing exercise intentions.

defined using spotlight analyses at one standard deviation above and below the mean (Irwin & McClelland, 2001). In line with H4, for the prevention focus orientation category, there was a significant difference between the effect of actual goal progress toward ideal weight on exercise intentions ($b = -0.98$; $t = -1.72$, $p < 0.05$). In other words, for individuals with prevention-focused orientations, those far away from their ideal goal weight have lower intentions of increasing exercise compared to those near their ideal weight goal. We illustrate these results in Figure 2.

Discussion—Study 2

The results of Study 2 indicate that manipulating food type can influence indulgence intentions; those manipulated with indulgent foods via a scenario experienced greater intentions of indulgence following the entrée than those manipulated with a nonindulgent food scenario. Further, findings show that regulatory focus orientation moderates the effect of goal progress on the dependent variables of interest. More specifically, for those far away from their ideal weight goal, prevention focus oriented individuals have lower intentions of increasing exercise compared to those near their ideal weight goal.

CONCLUSIONS

Therefore, the present two studies contribute to the body of research on health decision making and marketing communications by offering a framework for

conceptualizing consumer health goal pursuit and matching it with effective promotions. In the first study, results show that individuals are calibrated in terms of their health goals (i.e., when they are far away from their ideal weight, they want to eat healthier and exercise). For those interested in regulating weight, these findings suggest that distal mindsets can in fact encourage healthier decisions in terms of eating and exercising. Also, mindfulness of how health marketing may be presented to the consumer can indeed instigate eating and exercise motivation predispositions. As Roberts and Pettigrew (2013) contend, psychosocial needs can often become prioritized over physiological needs (i.e., hunger) by reinforcement gained from food marketing and advertising. Building on this finding, individual regulatory focus orientation is an important variable that can lend insights to marketing campaign managers. Whereas Study 1 indicates that individuals who perceive themselves as needing to lose weight want to eat healthier and exercise, Study 2 shows that prevention orientation reverses this effect.

According to self-discrepancy theory, individuals possess two different types of goals or desired end states, ideal self and ought self (Higgins, 1987). Prevention orientation should enhance ought self-goals, that is, goals that an individual believes she/he should possess, including duties, obligations, and responsibilities. When a prevention-oriented individual is confronted with an ideal self-goal, meaning a hope, dream, or aspiration, she/he will not experience regulatory congruence. Regulatory congruence, meaning a match between regulatory orientation and type of self-goal (ideal vs. ought), leads to facilitated goal pursuit. In

our findings, individuals were pursuing ideal weight as their self-goal, therefore regulatory congruence did not take place for those with prevention orientation. In effect, we focused solely on ideal self-goals throughout this research, and manipulated proximity to them. Therefore, given the lack of regulatory congruence, prevention-oriented individuals did not report the appropriate outcome expectation of the goal pursuit, meaning they did not want to increase exercise.

One of the main contributions of our study is that we study the combination of exercise intentions, indulgence manipulation, health goal progress, and regulatory focus. The need to prompt healthy food choices in individuals is a very important academic research pursuit, both from a policy angle, such as imposing external controls to prevent overindulgence (Finkelstein & Fishbach, 2010), as well as from a marketing promotions perspective, such as increasing food well-being as a way of life for individuals. We show that a chronic predisposition to a prevention mindset can negatively influence an otherwise healthy perspective or choice. Combining our research with existing literature on advertising to prevention-oriented individuals, promotional marketing managers can create effective communications, which target prevention-oriented individuals while still adhering to the findings of our first study by only providing nonindulgent images and informational copy in their promotions.

Limitations and Research Directions

Future research can test our results in light of self-discrepancy theory by experimentally manipulating ideal versus ought self-goals, instead of focusing solely on ideal goals. D'Alessandro and Chitty (2011) suggest that in western cultures, ideal social self-concepts lead to the expectancy of a thin and often unrealistic body shape. Their research indicates that such expectations eventually influence brand attitudes and hence consumption patterns. Future research could couple their findings with the present research to study how ideal social self-concepts can be combined with regulatory congruent advertisements to increase healthy behaviors such as increased exercise. Also, additional studies can expand our findings by varying the degree of implementation difficulty, for example, measuring both dieting and exercise likelihood, since research shows that individuals consider exercising to be a much larger effort than dieting in order to achieve weight loss goals (Bagozzi & Edwards, 2000).

Several studies suggest that collectivist cultures (such as East Asian cultures) behave differently in many settings than independent ones, and that self-construal (independent vs. interdependent self-view) is at the core of many of the worldview differences. In fact, according to Lee, Aaker, and Gardner (2000), collectivist cultures are known to be chronically prevention focused. Lin, Chang, and Lin (2012) indicate that perceived risk has a moderating effect on the persua-

siveness of a promotion versus prevention-focused message, depending on one's self-construal (independent vs. interdependent). Given the regulatory orientation differences across cultures and the continued growth of multinational corporations, our findings should also be validated in various countries (Jia, Wang, Ge, Shi, & Yao, 2012).

REFERENCES

- Adams, L., Faseur, T., & Geuens, M. (2011). The influence of the self-regulatory focus on the effectiveness of stop-smoking campaigns for young smokers. *Journal of Consumer Affairs*, 45, 275–305.
- Bagozzi, R. P., & Edwards, E. A. (2000). Goal-striving and the implementation of goal intentions in the regulation of body weight. *Psychology & Health*, 15, 255–270.
- Bagozzi, R. P., Moore, D. J., & Leone, L. (2004). Self-control and the self-regulation of dieting decisions: The role of pre-actual attitudes, subjective norms, and resistance to temptation. *Basic and Applied Social Psychology*, 26, 199–213.
- Bargh, J. A., Bond, R. N., Lombardi, W. J., & Tota, M. E. (1986). The additive nature of chronic and temporary sources of construct accessibility. *Journal of Personality and Social Psychology*, 50, 869–878.
- Baron, R. M., & Kenny, D. A. (1986). The moderator mediator variable distinction in social psychological research—Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- Belei, N., Geyskens, K., Goukens, C., Ramanathan, S., & Lemmink, J. (2012). The Best of both worlds? Effects of attribute-induced goal conflict on consumption of healthful indulgences. *Journal of Marketing Research*, 49, 900–909.
- Belk, R. W., Ger, G., & Askegaard, S. (2003). The fire of desire: A multisited inquiry into consumer passion. *Journal of Consumer Research*, 30, 326–351.
- Bitner, M. J., Booms, B. H., & Tetreault, M. S. (1990). The service encounter: Diagnosing favorable and unfavorable incidents. *Journal of Marketing*, 54, 71–84.
- Bruner, G. C., & Kumar, A. (2000). Web commercials and advertising hierarchy-of-effects. *Journal of Advertising Research*, 40, 35–42.
- Bui, M., Kemp, E., & Howlett, E. (2011). The fight against obesity: Influences of self-efficacy on exercise regularity. *Journal of Nonprofit & Public Sector Marketing*, 23, 181–208.
- Campbell, M. C., & Mohr, G. S. (2011). Seeing is eating: How and when activation of a negative stereotype increases stereotype-conducive behavior. *Journal of Consumer Research*, 38, 431–444.
- Cawley, J., & Meyerhoefer, C. (2012). The medical care costs of obesity: An instrumental variables approach. *Journal of Health Economics*, 31, 219–230.
- D'Alessandro, S., & Chitty, B. (2011). Real or relevant beauty? Body shape and endorser effects on brand attitude and body image. *Psychology & Marketing*, 28, 843–878.
- Dholakia, U. A., Gopinath, M., Bagozzi, R. P., & Natarajan, R. (2006). The role of regulatory focus in the experience and self-control of desire for temptations. *Journal of Consumer Psychology*, 16, 163–175.
- Etkin, J., & Ratner, R. K. (2013). Goal pursuit, now and later: Temporal compatibility of different versus similar means. *Journal of Consumer Research*, 39, 1085–1099.

- Finkelstein, S. R., & Fishbach, A. (2010). When healthy food makes you hungry. *Journal of Consumer Research*, 37, 357–367.
- Fishbach, A., & Dhar, R. (2005). Goals as excuses or guides: The liberating effect of perceived goal progress on choice. *Journal of Consumer Research*, 32, 370–377.
- Fitzmaurice, J. (2005). Incorporating consumers' motivations into the theory of reasoned action. *Psychology & Marketing*, 22, 911–929.
- Forehand, M. R., & Deshpande, R. (2001). What we see makes us who we are: Priming ethnic self-awareness and advertising response. *Journal of Marketing Research*, 38, 336–348.
- Glassman, K. (2013). Healthy indulgences: Decadent treats that are teeming with antioxidants. *Women's Health*. Retrieved March 16, 2015, from <http://www.womenshealthmag.com/nutrition/healthy-treats#>.
- Haws, K. L., Bearden, W. O., & Dholakia, U. M. (2012). Situational and trait interactions among goal orientations. *Marketing Letters*, 23, 47–60.
- Hayes, A. F. (2012). A versatile computation tool for observed variable mediation. *Moderation and Conditional Process Modeling*. Retrieved March 16, 2015, from <http://www.afhayes.com/public/process2012.pdf>.
- Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, 94, 319–340.
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, 52, 1280–1300.
- Higgins, E. T. (2000). Making a good decision: Value from fit. *American Psychologist*, 55, 1217–1230.
- Homer, P. M. (1995). Ad size as an indicator of perceived advertising costs and effort: The effects on memory and perceptions. *Journal of Advertising*, 24, 1–12.
- Huang, S.-c., Zhang, Y., & Broniarczyk, S. M. (2012). So near and yet so far: The mental representation of goal progress. *Journal of Personality and Social Psychology*, 103, 225–241.
- Irwin, J. R., & McClelland, G. H. (2001). Misleading heuristics and moderated multiple regression models. *Journal of Marketing Research*, 38, 100–109.
- Jia, H., Wang, Y., Ge, L., Shi, G., & Yao, S. (2012). Asymmetric effects of regulatory focus on expected desirability and feasibility of embracing self-service technologies. *Psychology & Marketing*, 29, 209–225.
- Jones, M. A., Reynolds, K. E., & Arnold, M. J. (2006). Hedonic and utilitarian shopping value: Investigating differential effects on retail outcomes. *Journal of Business Research*, 59, 974–981.
- Kemp, E., Bui, M., & Grier, S. (2013). When food is more than nutrition: Understanding emotional eating and overconsumption. *Journal of Consumer Behaviour*, 12, 204–213.
- Koo, M., & Fishbach, A. (2008). Dynamics of self-regulation: How (un)accomplished goal actions affect motivation. *Journal of Personality and Social Psychology*, 94, 183–195.
- Krishen, A. S., & Bui, M. (2015). Fear advertisements: Influencing consumers to make better health decisions. *International Journal of Advertising*, forthcoming.
- Krishen, A., & Worthen, D. (2011). Body image dissatisfaction and self-esteem: A consumer-centric exploration and a proposed research agenda. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 24, 90–106.
- Krishen, A. S., Raschke, R. L., & Mejza, M. (2010). Guidelines for shaping perceptions of fairness of transportation infrastructure policies: The case of vehicle mileage tax. *Transportation Journal*, 49, 24–38.
- Lee, A. Y., Aaker, J. L., & Gardner, W. L. (2000). The pleasures and pains of distinct self-construals: The role of interdependence in regulatory focus. *Journal of Personality and Social Psychology*, 78, 1122–1134.
- Lin, Y.-C., Chang, C.-C. A., & Lin, Y.-F. (2012). Self-construal and regulatory focus influences on persuasion: The moderating role of perceived risk. *Journal of Business Research*, 65, 1152–1159.
- Liu, J.-T., Tsou, M.-W., & Hammit, J. K. (2009). Willingness to pay for weight-control treatment. *Health Policy*, 91, 211–218.
- Lockwood, P., Jordan, C. H., & Kunda, Z. (2002). Motivation by positive or negative role models: Regulatory focus determines who will best inspire us. *Journal of Personality and Social Psychology*, 83, 854–864.
- Mick, D. G. (1996). Are studies of dark side variables confounded by socially desirable responding? The case of materialism. *Journal of Consumer Research*, 23, 106–119.
- Netemeyer, R. G., Krishnan, B., Pullig, C., Wang, G. P., Yagci, M., Dean, D. et al. (2004). Developing and validating measures of facets of customer-based brand equity. *Journal of Business Research*, 57, 209–224.
- Nyer, P. U., & Dellande, S. (2010). Public commitment as a motivator for weight loss. *Psychology & Marketing*, 27, 1–12.
- Ogden, C. L., Carroll, M. D., Kit, B. K., & Flegal, K. M. (2012). Prevalence of obesity in the United States, 2009–2010. NCHS data brief, no 82. Hyattsville, MD: National Center for Health Statistics.
- Ramanathan, S., & Williams, P. (2007). Immediate and delayed emotional consequences of indulgence: The moderating influence of personality type on mixed emotions. *Journal of Consumer Research*, 34, 212–223.
- Righetti, F., Finkenauer, C., & Rusbult, C. (2011). The benefits of interpersonal regulatory fit for individual goal pursuit. *Journal of Personality and Social Psychology*, 101, 720–736.
- Roberts, M., & Pettigrew, S. (2013). Psychosocial influences on children's food consumption. *Psychology & Marketing*, 30, 103–120.
- Rountree, M. M., & Davis, L. (2011). A dimensional qualitative research approach to understanding medically unnecessary aesthetic surgery. *Psychology & Marketing*, 28, 1027–1043.
- Swinburn, B. A., Sacks, G., Hall, K. D., McPherson, K., Finegood, D. T., Moodie, M. L. et al. (2011). The global obesity pandemic: Shaped by global drivers and local environments. *Lancet*, 378, 804–814.
- Szymanski, D. M. (2001). Modality and offering effects in sales presentations for a good versus a service. *Journal of the Academy of Marketing Science*, 29, 179–189.
- Tam, L., & Spanjol, J. (2012). When impediments make you jump rather than stumble: Regulatory nonfit, implementation intentions, and goal attainment. *Marketing Letters*, 23, 93–107.
- Tice, D. M., Bratslavsky, E., & Baumeister, R. F. (2001). Emotional distress regulation takes precedence over impulse control: If you feel bad, do it! *Journal of Personality and Social Psychology*, 80, 53–67.
- U.S. Department of Health and Human Services (USDHHS). (2011). *Healthy People 2010: Understanding and improving health* (2nd ed.). Washington, DC: Author.
- Wiebenga, J. H., & Fennis, B. M. (2014). The road traveled, the road ahead, or simply on the road? When progress framing affects motivation in goal pursuit. *Journal of Consumer Psychology*, 24, 49–62.
- Wilcox, K., Kramer, T., & Sen, S. (2011). Indulgence or self-control: A dual process model of the effect of incidental pride on indulgent choice. *Journal of Consumer Research*, 38, 151–163.

- Wilder, K. M., & Webster, C. (2011). In motivation and goal: An exploration of the effects of motivational priming on consumers' food portion size change intentions (pp. 220–221). San Francisco, CA. Paper presented at the AMA Summer Educators Conference.
- Yi, S., & Baumgartner, H. (2008). Motivational compatibility and the role of anticipated feelings in positively valenced persuasive message framing. *Psychology & Marketing*, 25, 1007–1026.
- Yin, Z. N., & Boyd, M. P. (2000). Behavioral and cognitive correlates of exercise self-schemata. *Journal of Psychology*, 134, 269–282.
- Zhao, G., & Pechmann, C. (2007). The impact of regulatory focus on adolescents' response to antismoking advertising campaigns. *Journal of Marketing Research*, 44, 671–687.

*These authors contributed equally to this manuscript.

Correspondence regarding this article should be sent to: My Bui, Assistant Professor, Marketing, Loyola Marymount University, One LMU Drive, MS 8385, Los Angeles, CA 90045 (mbui@lmu.edu).