

Goal Pursuit, Now and Later:
Temporal Compatibility of Different versus Similar Means

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Compatibility between the degree of similarity among means to goal attainment and the anticipated timing of goal pursuit increases goal-directed motivation. Six studies demonstrate that consumers are more motivated and willing to pay for means to goal attainment in the near term when they plan to use a set of different (vs. similar) means. In contrast, consumers are more motivated and willing to pay for means to goal attainment in the long term when they plan to use similar (vs. different) means. For example, consumers paid more for a personal training session when told it would include exercises for different (similar) muscle groups and would take place this week (next month). These effects are driven by the ease of processing differences (similarities) when considering the near (far) future (Förster 2009). Similar results were obtained across various domains, including health and fitness, saving money, and academic performance.

Planning for goal pursuit occurs on a continual basis. Health-conscious consumers go grocery shopping for healthy snacks to consume over the next few days, social individuals make plans with friends for now and upcoming weeks, and students buy study guides for standardized tests weeks or months in advance. When planning for goal pursuit, consumers often use multiple products or engage in multiple behaviors to help them achieve their goals. These goal-related products and behaviors (i.e., means) may differ in similarity. For example, consumers may purchase many of the same healthy snack or many different healthy snacks (e.g., granola bars, fresh fruit, etc.) with the intention of using the products to help them pursue their health goal. Likewise, individuals may plan similar activities or very different activities to socialize with friends, and students may purchase relatively similar versus different study guides when preparing for standardized tests. How might the similarity of the means consumers plan to use for goal pursuit affect their motivation? Will the relationship between means similarity and motivation change depending on whether consumers plan to use the means in the near future versus in the far future?

In the present research we explore how goal-directed motivation depends on when consumers plan for goal pursuit and the similarity of means they intend to use. We propose that consumers planning for goal pursuit in the near future will be more motivated by a set of relatively different means, whereas consumers planning for goal pursuit in the far future will be more motivated by a set of relatively similar means. We base this idea on past research demonstrating that the anticipated timing of an activity affects the way it is construed (Trope and Liberman 2000; 2003). Focusing on engaging in an activity in the near future leads consumers to a more concrete construal, whereas focusing on engaging in an activity in the far future leads to a more abstract construal. These construals, in turn, affect how consumers process information

regarding sets of items (Förster 2009). Whereas concrete construals lead consumers to spontaneously seek out differences among a set of items, abstract construals lead consumers to spontaneously seek out similarities. In the context of goal pursuit, these findings suggest that consumers planning to use multiple means to help them pursue a goal in the near future will more readily process differences among the means. In contrast, consumers planning to use multiple means to help them pursue a goal in the far future will more readily process similarities among the means.

Extending this prior work, we argue that whether consumers focus on goal pursuit in the near versus far future will affect the similarity of means most motivating for goal pursuit. As suggested in the opening example, the means that consumers use to pursue a goal may vary in similarity (e.g., multiples of the same type of snack vs. multiple different snacks). The relative similarity of the means, in turn, should affect the ease of identifying similarities versus differences among the means. Specifically, because there are more similarities (differences) among relatively similar (different) sets of means, we reason that a similar (vs. different) set of means should facilitate identification of similarities, whereas a different (vs. similar) set of means should facilitate identification of differences.

Thus, for consumers focused on goal pursuit in the near future, a different (vs. similar) set of means should be more compatible with their mindset (i.e., to search for differences). In contrast, for consumers focused on goal pursuit in the far future, a similar (vs. different) set of means should be more compatible with their mindset (i.e., to search for similarities). We argue that the metacognitive value from fit arising from the temporal compatibility of sets of relatively similar versus different means to goal attainment will result in an increase in consumers' goal-directed motivation (Higgins 2000; Higgins et al. 2003).

The remainder of this article is organized as follows. First, we review relevant literature on temporal focus, means to goal attainment, and motivation to develop our predictions regarding how similarity among means affects goal-directed motivation in the near versus far future. Next, we present six studies, which provide support for our hypotheses. We conclude with a discussion of the implications of our findings for consumer behavior theory, for marketing practice, and for consumers' success in pursuit of long-term goals.

PLANNING FOR GOAL PURSUIT

Unlike goals that can be satisfied in a single consumption episode (e.g., buying a cup of coffee from Starbucks), self-control goals (e.g., a goal to be healthy) often persist over a long time period. Consequently, consumers must formulate plans to pursue these types of goals that include goal pursuit in the near future as well as in the far future. For example, consumers pursuing a health goal may plan to purchase snacks when they go to the grocery store to use either in the next few days or in the next few months. Likewise, health-conscious consumers may plan to meet with a personal trainer at the beginning of next week or next year. As these examples suggest, consumers' plans for goal pursuit often involve using products (the healthy snacks) or services (the personal trainer) that they believe will help them achieve their goal. We refer to these types of products and services, along with goal-related behaviors more generally, as means to goal attainment (Kruglanski et al. 2002).

Consumers often use multiple means to pursue a goal (Kruglanski et al. 2002). These sets of means may differ in number, consisting of relatively few or many means. Likewise, sets of means may differ in similarity, consisting of means that differ on few (if any) attributes (e.g.,

many types of fresh fruit as healthy snacks) or means that differ on several attributes (e.g., fresh fruit, granola bars, and low-fat yogurt as healthy snacks). Recent research has explored how the composition of a set of means might affect motivation to pursue the associated goal. For example, Kruglanski, Pierro, and Sheveland (2010) show that larger sets of means increase people's commitment to a goal, subsequently increasing motivation to achieve it. Etkin and Ratner (2012) demonstrate that more (vs. less) varied sets of means increase goal-directed motivation when progress towards goal attainment is low, but decrease goal-directed motivation when progress towards goal attainment is high.

In the present research, we argue that characteristics of sets of means will also affect motivation as a function of when consumers plan to use the means for goal pursuit. Specifically, we argue that the relative similarity of means that consumers find motivating when they focus on goal pursuit in the near future is different from the relative similarity of means that consumers find motivating when they focus on pursuit in the far future.

TEMPORAL FOCUS AND MEANS SIMILARITY

Past work on temporal focus has shown that the temporal focus of goal pursuit changes how consumers construe information pertaining to their goal (Förster, Higgins, and Idson 1998; Higgins et al. 2010). Whereas focusing on engaging in an activity in the near future results in a more concrete construal of the activity, focusing on engaging in an activity in the far future results in a more abstract construal of the activity (Trope and Liberman 2000; 2003). High-level construals involve conceptualizing information about objects and events at a more abstract level, capturing the superordinate, or central features of those constructs. Low-level construals, in

contrast, involve conceptualizing information about objects and events at a more concrete level, capturing subordinate, unique, and specific features of focal constructs (Fujita et al. 2006).

More recent research has considered how temporal focus affects evaluations of assortments. In particular, temporal construal has been found to lead consumers to pay differential attention to similarities versus differences among sets of items (Förster 2009). When evaluating an assortment, abstract construals lead consumers to spontaneously search for similarities among items in the set, whereas concrete construals lead consumers to spontaneously search for differences among items in the set. For example, participants asked to imagine an upcoming event in the near future subsequently identified more differences (vs. similarities) between two unrelated items (e.g., TV shows) in a subsequent task. In contrast, participants asked to imagine an upcoming event in the far future subsequently identified more similarities (vs. differences) between these two unrelated items (e.g., Förster 2009; Macrae and Lewis 2002).

Whether people attend to similarities or differences among items can have important implications for decision-making and cognition (Brooks, Norman, and Allen 1991; Dhar, Nowlis, and Sherman 1999; Förster 2009). For example, a recent article (Goodman and Malkoc 2012) demonstrates that consumers' search for differences in the near future leads them to prefer a large choice set to a small choice set, as a focus on differences increases the perceived uniqueness of items in the set, rendering them less substitutable. This preference for a large (vs. small) choice set diminishes in the far future when consumers' search for similarities leads them to perceive choice options as more substitutable.

Applied to the context of goal pursuit, this prior research suggests that consumers focused on pursuing a goal in the near future will attend more readily to differences among an available set of means to goal attainment. In contrast, consumers focused on pursuing a goal in the far

future will attend more readily to similarities among an available set of means to goal attainment. Extending this work, we propose that consumers' temporal orientation towards goal pursuit will affect how motivated they feel to use sets of similar versus different means to pursue a goal.

Our reasoning is as follows. The relative ease of identifying similarities versus differences among a set of means depends on the number of similarities (vs. differences) present among the means. Because similar means have more in common with each other than do different means, a relatively similar (vs. different) set of means will facilitate consumers' search for similarities. Conversely, a relatively different (vs. similar) set of means will facilitate consumers' search for differences. Thus, we reason that a different (vs. similar) set of means will be more compatible with the mindset of focusing on goal pursuit in the near future, whereas a similar (vs. different) set of means will be more compatible with the mindset of focusing on goal pursuit in the far future.

We propose that compatibility between consumers' temporal focus-induced processing orientation and the relative similarity of the means they plan to use for goal pursuit will increase goal-directed motivation. Indeed, past work has shown that consumers derive value from compatibility between the manner in which a goal is pursued and their idiosyncratic orientation towards goal pursuit. Such value has been found to transfer to enhance goal pursuit, increasing the amount of effort expended and consumers' willingness to pay for goal-related products (Cesario, Grant, and Higgins 2004; Fishbach, Shah, and Kruglanski 2004; Förster et al. 1998; Higgins 2005; Higgins et al. 2010; Merton 1957). For example, compatibility between participants' chronic regulatory focus orientation and their adopted choice strategy increased willingness to pay for a chosen product by 40 - 60% (Higgins et al. 2003).

Building on these findings, we predict that consumers focused on goal pursuit in the near future will feel more motivated to pursue their goal when they plan to use a set of different (vs. similar) means to goal attainment. In contrast, we predict that consumers focused on goal pursuit in the far future will feel more motivated to pursue their goal when they plan to use a set of similar (vs. different) means to goal attainment.

H1: Consumers focused on pursuing a goal in the near future will be more motivated to pursue the goal by sets of different (vs. similar) means to goal attainment.

H2: Consumers focused on pursuing a goal in the far future will be more motivated to pursue the goal by sets of similar (vs. different) means to goal attainment.

We test our predictions in a series of six studies. In studies 1 and 2 we seek initial support for our two hypotheses by measuring motivation as a function of the actual similarity of the provided means (study 1) and of the variety among participants' chosen means (study 2) to pursue fitness goals. Study 3 extends the investigation to an additional goal domain (savings goals) and elicits participants' self-generated means. Next, study 4 provides evidence for the proposed metacognitive mechanism underlying the obtained effects. The study manipulates the ease of identifying similarities (differences) among sets of means and shows that making the search for similarities (differences) difficult eliminates the effect of temporal compatibility on motivation. Study 5 extends the investigation to demonstrate temporal compatibility effects on participants' real willingness to pay for the means. Finally, study 6 explores an extension of our paradigm, showing that the relative similarity of means can influence whether consumers

expedite or delay use of means for goal pursuit. Taken together, these studies demonstrate that the effect of similarity among means to goal attainment on motivation depends on when consumers plan to use the means to pursue their goal.

STUDY 1: EFFECTS OF TIME HORIZON AND IDENTICAL VERSUS VARIED MEANS ON MOTIVATION

Study 1 provides an initial test of the hypothesized effects of temporal focus and means similarity on motivation. This study varies the actual similarity of a set of means (identical vs. varied protein bars) and measures participants' motivation to pursue their (fitness) goal when planning to consume the means over a short time horizon versus a longer time horizon.

Following our hypotheses, we expect consumers planning to use the means over a short time (i.e., near future) to be more motivated to pursue their goal by varied (vs. identical) means.

Likewise, we expect consumers planning to use the means over a longer time horizon to be more motivated to pursue their goal by identical (vs. varied) means.

Design and Method

Ninety-seven members of a national panel (ages 20 to 69) participated in this study in exchange for a small payment. Participants were randomly assigned to condition in a 2 (time horizon: short, long) X 2 (similarity of means: identical, varied) between-subjects design.

We first asked participants whether "being physically fit is a goal that you have" (yes-no). Fifteen participants indicated that they did not have a fitness goal and were excluded from

further analyses ($N = 82$). Next, we presented participants with one of two sets of three PowerBar protein bars, depending on condition. In the identical condition, all three protein bars were of the same flavor (chocolate chip), whereas in the varied condition, the three protein bars differed in flavor (chocolate chip, vanilla yogurt, and peanut butter).

We asked participants to imagine that they had been given the three bars to use in pursuit of their fitness goal. To manipulate temporal focus, we varied the time period over which we asked participants to consider using the bars. In the short time horizon condition, we asked participants to imagine using the bars over the next seven days. In the long time horizon condition, we asked participants to imagine using the three bars over the next seven weeks.

Finally, to measure motivation to be physically fit, we asked participants to report their interest in participating in a study in which they would be given the same protein bars to help them pursue their fitness goal (“How interested would you be in participating in a follow-up study where you would be given three protein bars and asked to track when you ate them?”) on a 7-point scale (1 = *Would definitely not participate*, 7 = *Would definitely participate*).

Results

Motivation. A two-way ANOVA revealed the predicted interaction between time horizon and means similarity ($F(1, 78) = 9.07, p < .01$, see figure 1). Consistent with hypothesis 1, participants who planned to use the means over the next week (near future) were directionally more interested in participating in the follow-up study when they imagined using the varied versus identical set of means ($M_{\text{varied}} = 6.92, M_{\text{ident}} = 5.95; F(1, 78) = 3.13, p = .08$). In contrast, consistent with hypothesis 2, participants who planned to use the means over the next seven

weeks (far future) were more interested in participating in the follow-up study when they imagined using the identical versus varied set of means ($M_{\text{ident}} = 6.46$, $M_{\text{varied}} = 5.36$; $F(1, 78) = 7.01$, $p < .01$).

Discussion

The results of study 1 provide preliminary support for hypotheses 1 and 2. When participants planned to pursue their fitness goal over a short (one-week) time horizon, they were more interested in using a varied versus identical set of means. In contrast, when participants planned to pursue their fitness goal over a long (seven-week) time horizon, they were more interested in using an identical versus varied set of means. In the next study, we extend the paradigm of study 1 by allowing participants to choose which of the presented means they would use (i.e., varied or identical means). Different than study 1, here we hold the consumption interval constant, varying only whether participants receive their chosen means now (i.e., near future) or two months from now (i.e., far future).

STUDY 2: EFFECTS OF TEMPORAL FOCUS AND CHOSEN MEANS ON MOTIVATION

Study 2 extends the investigation by incorporating two key changes. First, we invite participants to choose which of the provided means they will use, as opposed to being given a specified set. We present participants with two types of protein bars and allow them to choose one of each type of bar or two units of the same type of bar to use in pursuit of their fitness goal.

This manipulation allows us to consider how temporal focus affects participants' choice of goal-related products, as well as how their choice (of identical vs. varied means) interacts with temporal focus to affect subsequent motivation. Second, study 2 uses a different manipulation of temporal focus. Whereas in study 1 we manipulated the time horizon of goal pursuit by varying inter-consumption interval, here we hold the inter-consumption interval constant and manipulate temporal focus by informing participants that they will receive their chosen protein bars now versus later in the semester.

Design and Method

Ninety-six undergraduate students at the University of Maryland participated in this study in exchange for course credit. Participants were randomly assigned to a temporal focus condition: present versus future.

First, we asked participants whether “being physically fit is a goal that you have” (yes-no). Two participants did not report having a fitness goal and were excluded from subsequent analyses ($N = 94$). Next, we invited participants to choose protein bars to help them pursue their fitness goal. Specifically, we presented them with a choice of two types of protein bars (Nashua HealthSmart Oatmeal-flavored and Rockie Road-flavored). We asked participants to choose a total of two protein bars in any combination that they wished. Thus, participants could either choose a varied assortment (one each of the Oatmeal and Rockie Road protein bars) or they could choose an identical assortment (two of the Oatmeal protein bars or two of the Rockie Road protein bars).

To manipulate temporal focus, we varied when participants anticipated receiving these protein bars. In the present condition, participants read that they would receive their chosen protein bars at the end of the experimental session (i.e., in a few moments). In the future condition, participants read that they would receive their chosen protein bars when they returned to the lab next month to participate in a different experimental session.

After reading these instructions, participants proceeded to choose their two protein bars. We coded participants as either choosing a varied set of means (i.e., one of each type of bar) or an identical set of means (i.e., two of one type of bar).

Finally, to measure motivation, we asked participants to indicate the number of times (open-ended) they intended to exercise over the next seven days. Participants in the present condition then received their two protein bars. Participants in the future condition received their two protein bars when they returned to the lab the following month.

Results

Choice of Means. First, we compared choice of means (identical vs. varied) across temporal focus conditions. Participants were more likely to choose varied means when they expected to receive the means immediately following the current experimental session than when they expected to receive the means the following month ($M_{\text{present}} = 63.3\%$, $M_{\text{future}} = 40.0\%$; $\chi^2[1] = 5.09$, $p < .05$). Overall, most people chose the compatible amount of variety among means for goal pursuit (i.e., varied means in the near future vs. identical means in the far future). However, the fact that these percentages are not 100% indicates that not all people behave in this manner.

Motivation. To test the effects of temporal focus and chosen variety on motivation we conducted a two-way ANOVA of chosen variety (1 = varied, 0 = identical) and temporal focus on the number of times participants anticipated exercising in the next week. This analysis revealed an interaction between temporal focus and chosen variety ($F(1, 90) = 13.03, p = .001$, see figure 2). Consistent with hypothesis 1, participants who anticipated receiving the bars in the present felt more motivated to pursue their fitness goal when they chose varied bars versus identical bars ($M_{\text{varied}} = 4.26, M_{\text{ident}} = 2.61; F(1, 90) = 10.08, p < .01$). In contrast, consistent with hypothesis 2, participants who anticipated receiving the bars in the future felt more motivated to pursue their fitness goal when they chose identical bars versus varied bars ($M_{\text{ident}} = 3.93, M_{\text{varied}} = 2.89; F(1, 90) = 3.79, p = .05$).

Discussion

The results of study 2 provide additional support for our hypotheses. Consistent with hypothesis 1, participants were more motivated to pursue their fitness goals when they had chosen (vs. declined) variety among means to goal attainment that they anticipated receiving in the present. In contrast, consistent with hypothesis 2, participants were more motivated to pursue their fitness goals when they had declined (vs. chosen) variety among means to goal attainment that they anticipated receiving in the future.

One interesting aspect of these findings comes from our assessment of participants' current level of motivation to pursue their fitness goals as the dependent measure. Although we asked half of participants to imagine receiving their chosen protein bars in the future, these participants subsequently reported motivation to pursue their fitness goal in the present. One

could wonder if directing participants' attention to goal pursuit in the far future might decrease motivation in the near future, because the temporal compatibility of similar means differs in these two instances. We interpret the fact that the obtained pattern of results supports our hypotheses as consistent with past work on transfer of value from fit (Cesario et al. 2004; Fishbach et al. 2004; Förster et al. 1998; Higgins 2005; Higgins et al. 2010; Merton 1957). Specifically, we suggest that the value derived from temporal compatibility between identical means and goal pursuit in the far future transferred to enhance general goal-directed motivation, which in this particular instance manifested as motivation in the present.

Our next study builds on studies 1 and 2 by testing our propositions in the context of an additional goal domain: savings goals. In addition, as opposed to providing participants with a menu of means to goal attainment, study 3 allows participants to list their own (similar or different) means to use for goal pursuit.

STUDY 3: GENERALIZATION TO SELF-GENERATED MEANS AND NEW GOAL DOMAIN

Study 3 builds on the results of the first two studies in two ways. First, we ask participants to generate their own perceived similar or different approaches to attaining the goal, rather than providing them with similar or different means. Second, we extend the investigation to another domain relevant to consumer behavior: financial savings. Specifically, we ask participants to describe a savings goal they are pursuing at the present time ("right now") or over the next year, and then assess their motivation to save money.

Design and Method

One hundred and ten undergraduate students at the University of Maryland participated in this study in exchange for course credit. Participants were randomly assigned to condition in a 2 (temporal focus: near future, far future) X 2 (means similarity: similar, different) between-subjects design.

First, participants read that we were interested in understanding how students formulate plans to save money. We then asked participants in the near future condition to describe a goal they had for themselves “right now” related to saving money. In contrast, we asked participants in the far future condition to describe a goal they had for themselves “over the next year” related to saving money. Nine participants in the two conditions reported not having a corresponding savings goal and were excluded from further analyses ($N = 101$).

Next, we asked participants to list approaches they could take to help them achieve their goal. Specifically, in the similar means condition we asked participants to list three similar approaches to meet their savings goal, whereas in the different means condition we asked participants to list three different approaches to meet their savings goal. A pre-test ($N = 56$) indicated that our manipulation altered participants’ perception of the similarity of their means as we intended (“How similar to each other are the ways to achieve your savings goal that you listed on the previous page?” 1 = *Very different*, 7 = *Very similar*). Participants asked to list three similar approaches to saving money perceived their means as more similar to each other ($M = 5.07$) relative to participants asked to list three different approaches to saving money ($M = 4.19$, $F(1, 54) = 4.36$, $p < .05$).

After the means listing task, we assessed participants' motivation to save money by asking them how "motivated do you feel to save money" and how "committed are you to saving money" on 7-point scales (1 = *Not at all*, 7 = *Very much*). We combined these measures ($\alpha = .90$) to form a composite measure of motivation.

Results

Motivation. A two-way ANOVA revealed the predicted interaction between temporal focus and means similarity ($F(1, 97) = 8.85, p < .01$, see figure 3). Consistent with hypothesis 1, participants who described goals to save for right now felt more motivated to save when they listed three different versus three similar approaches to achieving their savings goal ($M_{\text{diff}} = 6.17, M_{\text{sim}} = 5.33; F(1, 97) = 5.15, p < .05$). In contrast, consistent with hypothesis 2, participants who described goals to save money over the next year felt more motivated to save when they listed three similar versus three different approaches to achieving their savings goal ($M_{\text{sim}} = 5.71, M_{\text{diff}} = 4.95; F(1, 97) = 3.80, p = .05$).

Discussion

Study 3 demonstrates that our predicted interaction pattern obtains in another critical domain of self-regulation: financial savings. Directing students to think of different (vs. similar) means increased their motivation to save for right now, whereas directing students to think of similar (vs. different) means increased their motivation to save over the next year.

In a follow-up study, we replicated the design of study 3 in the domain of academic goals. The key interaction pattern emerged in this follow-up study as well. Students planned to spend more hours studying in the near future (for midterm exams) when prompted to think about different (vs. similar) approaches they could take to meeting their midterm exam- performance goal. Conversely, students planned to spend more hours studying in the far future (for final exams) when prompted to think about similar (vs. different) approaches they could take to meeting their final exam-performance goal. That the pattern from studies 1 and 2 in the context of fitness goals emerged in two additional goal domains speaks to the robustness of temporal compatibility effects on motivation across a variety of contexts.

Taken together, studies 1, 2, and 3 provide support for the predicted interaction pattern captured in our two hypotheses. Consistent with our propositions, we find that consumers are more motivated in the near (far) future by relatively different (similar) means to goal attainment. In our next study we seek to elucidate the process underlying this pattern of results. Specifically, study 4 tests our theorizing that the process driving the temporal compatibility effects of similar versus different means on motivation relates to consumers' propensity to search for differences (similarities) among sets of means when focusing on goal pursuit in the near (far) future.

STUDY 4: EVIDENCE FOR MECHANISM UNDERLYING TEMPORAL COMPATIBILITY OF MEANS

We have argued that consumers are more motivated by different (similar) means in the near (far) future because consumers in the near (far) future spontaneously attend to differences (similarities) among means, which are easier to identify among relatively different (similar)

means. This reasoning implies that manipulating the ease with which consumers are able to find similarities versus differences among a set of means should moderate the relationship between means similarity and motivation when planning for goal pursuit in the near versus far future. Specifically, increasing the subjective difficulty of finding differences should attenuate the positive effect of different (vs. similar) means on motivation to pursue a goal in the near future, whereas increasing the subjective difficulty of finding similarities should attenuate the positive effect of similar (vs. different) means on motivation to pursue a goal in the far future.

We test this reasoning in study 4 by asking participants to list either two (easy) or 10 (difficult) similarities versus differences among means, prior to considering use of the means in the near versus far future. We reasoned that making what would otherwise be a fluent experience (identifying differences in the near future and similarities in the far future) more difficult would attenuate the temporal compatibility effects of similar versus different means on motivation.

Design and Method

One hundred and sixty members of an online panel (ages 18 to 73) were recruited to participate in this study in exchange for a small payment. Participants were randomly assigned to condition in a 2 (temporal focus: near future, far future) X 2 (means similarity: similar, different) X 2 (ease of processing: easy, difficult) between-subjects design.

First, we asked participants whether “being physically fit is a goal that you have” (yes-no). Nine participants in the main study did not report having a fitness goal and were excluded from subsequent analyses ($N = 151$). We presented participants with a set of three different flavors of PowerBar protein bars, as used in the different means condition of study 1 (chocolate

chip, vanilla yogurt, and peanut butter). Participants read that these bars could be used after a workout to help them achieve their fitness goals.

Next, we either asked participants to identify similarities (similar condition) or differences (different condition) among this set of bars. The task instructions were designed to make this process more difficult for half of participants. Specifically, participants in the easy condition were asked to list two similarities (differences) among the protein bars, whereas participants in the difficult condition were asked to list 10 similarities (differences) among the protein bars (adapted from Schwarz et al. 1991). This task was designed so that identifying similarities (differences) would be relatively easy for participants when asked to list two similarities (differences), but more difficult when asked to list 10 similarities (differences).

The temporal focus manipulation came after this similarity/difference listing task. We asked participants in the near future condition to imagine that they had been given the three bars to use over the course of the next week, but asked participants in the far future condition to imagine that they would be given the three bars to use over the course of a week six months in the future.

Finally, participants reported their motivation to pursue their fitness goal on a series of three 7-point scales (“How motivated do you feel to pursue your goal to be physically fit?” “How much effort do you intend to devote towards your goal of being physically fit?” and “How committed are you to pursuing your goal to be physically fit?” 1 = *Not at all motivated, Very little effort, Not at all committed*; 7 = *Very motivated, A lot of effort, Very committed*). We combined these measures ($\alpha = .93$) to form an average measure of motivation.

We also asked participants to report their perceptions of the similarity of their means to goal attainment (“How similar are the three protein bars to each other?”) on a 7-point scale (1 =

Very similar, 7 = Very different) to test whether our ease of processing and temporal focus manipulations influenced participants' perceptions of the similarity of their means to goal attainment.

Results

Motivation. A three-way ANOVA revealed a main effect of temporal focus ($F(1, 143) = 5.40, p < .05$), qualified by a three-way interaction between temporal focus, means similarity, and ease of processing on motivation to pursue the fitness goal ($F(1, 143) = 10.99, p = .001$). To explore the nature of this interaction, we ran separate analyses for goal pursuit in the near versus far future.

First examining participants who considered using the means in the near future, a two-way ANOVA revealed a significant interaction between the prompt to list similarities versus differences and the ease of processing manipulation on motivation ($F(1, 143) = 8.04, p < .01$; see upper panel of figure 4). Consistent with our predictions, when it was easy for participants considering the near future to list thoughts about the protein bars, motivation was higher when participants listed differences than when they listed similarities ($M_{\text{diff}} = 5.53, M_{\text{sim}} = 4.60; F(1, 143) = 4.65, p < .05$). In contrast, when it was more difficult for participants to list thoughts about the bars, motivation was directionally lower when participants focused on differences versus similarities ($M_{\text{diff}} = 4.48, M_{\text{sim}} = 5.20; F(1, 143) = 3.39, p < .07$). Though unanticipated, this directional reversal is consistent with the prediction that those who find it easy to generate differences (or hard to generate similarities) will be more motivated when thinking about the near future.

Examining next participants who considered using the means in the far future, a two-way ANOVA revealed a marginally significant interaction between the prompt to list similarities versus differences and the ease of processing manipulation on motivation ($F(1, 143) = 3.43, p < .07$; see lower panel of figure 4). Consistent with our predictions, when it was easy for participants considering the far future to list thoughts about the protein bars, motivation was higher when participants listed similarities than when they listed differences ($M_{\text{sim}} = 6.04, M_{\text{diff}} = 4.93; F(1, 143) = 7.40, p < .01$). In contrast, there was no comparable effect when it was more difficult for participants to list their thoughts about the bars ($M_{\text{sim}} = 5.40, M_{\text{diff}} = 5.37; F < 1$).

Perceived Similarity. One could argue that our ease of processing manipulation influenced motivation by leading individuals to conclude that the set of means was more or less similar, which then affected motivation differently depending on whether the temporal focus of goal pursuit was distant or proximate. To address this issue, we conducted a three-way ANOVA on perceptions of means similarity, which revealed a main effect of the prompt to list similarities versus differences only. Participants perceived the three protein bars to be more similar to each other when asked to list similarities ($M = 5.86$) than when asked to list differences ($M = 5.34; F(1, 143) = 7.53, p < .01$).

Note that prior demonstrations of manipulated ease of processing (e.g., Schwarz et al. 1991) might have predicted an interaction between our means similarity manipulation and our ease of processing manipulation on perceived means similarity. That we do not obtain such an effect in the present research paradigm suggests that it is the ease of identifying similarities versus differences rather than the content of identified similarities versus differences that drives the temporal compatibility effects on goal-directed motivation.

Discussion

The results of study 4 support the proposed process underlying the effects of temporal focus and means similarity on motivation. Because consumers in the near (far) future more readily attend to differences (similarities) among sets of items, making the identification of differences (similarities) relatively easy by only asking participants to list two examples increased motivation, replicating the results of our prior studies and supporting hypotheses 1 and 2 (see the left-most bars of figure 4). Specifically, focusing on differences (vs. similarities) increased participants' motivation to pursue their fitness goal in the near future, whereas focusing on similarities (vs. differences) increased participants' motivation to pursue their fitness goal in the far future. However, increasing the difficulty of identifying differences (similarities) by asking participants to list 10 examples attenuated these effects (see the right-most bars of figure 4).

This pattern of results provide support for our theorizing that the temporal compatibility of different (similar) means in the near (far) future stems from consumers' natural inclination to search for differences (similarities) among sets of items in the near (far) future. Consistent with prior work on individuals' metacognitive experience (Schwarz et al. 1991), we find that when consumers search for differences (similarities) among means and easily identify those differences (similarities), goal-directed motivation increases. In contrast, when consumers' search for differences (similarities) is experienced as more difficult, temporal compatibility effects of means similarity on motivation do not obtain.

Importantly, the results of study 4 suggest that the underlying mechanism relates to metacognitive experiences of ease in identifying similarities versus differences, rather than other

plausible mechanisms. For example, the findings do not support an account based on perceptions of the items as more or less similar. If this account explained the results, the ease of processing manipulation should have affected perceptions of means similarity as well as motivation, which it did not. Though ease of identifying similarities (differences) could influence individuals' perception of means similarity, this relationship did not emerge in this study. This finding demonstrates that the two need not co-vary and that the critical element is ease of processing. A more general weighting of variety in the near versus far future also cannot account for the results of study 4; such a pattern would have been reflected in a two-way interaction between means similarity and temporal focus, which did not emerge.

We turn next to consider the behavioral implications of our propositions: we invite participants to take part in an auction for means to the attainment of a fitness goal (an hour-long personal training session), thereby measuring their real willingness to pay for the means.

STUDY 5: WILLINGNESS TO PAY FOR SIMILAR VERSUS DIFFERENT MEANS TO GOAL ATTAINMENT

Study 5 extends our study of the temporal-compatibility of similar versus different means to consumers' actual willingness to pay for the means. Previous research suggests that the value consumers ascribe to a goal transfers to increase the value of its means to attainment; thus, measuring consumers' willingness to pay for means to goal attainment offers another way to capture goal-directed motivation (Etkin and Ratner 2012; Fishbach et al. 2004). To measure willingness to pay, we invited participants to enter an auction for a service related to the attainment of a fitness goal: a one-hour session with a personal trainer at the University's

recreation center. We manipulated whether we emphasized differences or similarities in the description of the exercise program, as well as whether participants planned to start the program in the near versus far future, prior to eliciting participants' willingness to pay.

Design and Method

One hundred and eleven students at the University of Maryland were recruited to participate in this study in exchange for course credit. Participants were randomly assigned to condition in a 2 (temporal focus: near future, far future) X 2 (similarity of means: similar, different) between-subjects design.

We first asked participants to indicate whether they were currently pursuing a goal to be physically fit (yes-no). One participant indicated that s/he did not have a fitness goal and was excluded from further analyses ($N = 110$). Next, we asked participants to consider a situation in which they had hired a personal trainer to help them meet their fitness goal. In the near future condition, we asked participants to imagine that their first hour-long session with the personal trainer was scheduled for next week, whereas in the far future condition we asked participants to imagine that their first hour-long session with the personal trainer was scheduled for next month.

All participants read a description of the hour-long personal training session, which included three components: a 10 minute warm-up, 40 minutes of interval training, followed by a 10 minute cool-down. To manipulate the perceived similarity of exercises within the personal training session, we varied the language used to describe the interval portion of the session. In particular, participants in the similar [different] condition read the following instructions: "Your trainer emphasizes that during the interval training portion of the session you will complete many

repetitions of the same [different] exercises, working the same [different] muscle groups in your body. Your trainer believes it is important to work out the same [different] muscle groups to meet your fitness goal.”

Finally, we invited participants to enter an auction for a one-hour personal training session with a trainer at the University’s recreation center, where the trainer would follow the program as was described (i.e., focusing on variation vs. commonalities in the interval training portion of the session). Participants were each permitted to submit one bid (\$) for the personal training session and were told to write “0” if they would be not be willing to pay any amount of money for it. We selected and notified the winning bidder at the end of each day of data collection. Participants’ bids for the one-hour personal training session served as our main dependent measure in this study.

Results

Willingness to Pay. A two-way ANOVA revealed the predicted interaction between temporal focus and means similarity on the amount bid for the personal training session ($F(1, 106) = 12.67, p = .001$; see figure 5). Consistent with hypothesis 1, participants planning to start the personal training program in the near future bid more for the session advocating different exercises relative to the session advocating similar exercises ($M_{\text{diff}} = \$14.39, M_{\text{sim}} = \$7.14; F(1, 106) = 5.45, p < .05$). Consistent with hypothesis 2, participants planning to start the personal training program in the far future bid more for the session advocating similar exercises relative to the session advocating different exercises ($M_{\text{sim}} = \$13.04, M_{\text{diff}} = \$5.60; F(1, 106) = 6.50, p <$

.01). This pattern continued to emerge even when excluding participants ($N = 74$) who indicated that they would not pay any money (\$0) for the session.

Discussion

These results demonstrate our effects with a different measure of consumer motivation: willingness to pay for means to goal attainment. Replicating the pattern of results from our earlier studies, participants were willing to pay more for means to goal attainment in the near future when the means was described using differences (vs. similarity) language, but were willing to pay more for means to goal attainment in the far future when the means was described using similarity (vs. differences) language.

STUDY 6: MEANS SIMILARITY AFFECTS TIMING OF GOAL PURSUIT

One final study explores an extension of our paradigm. Our results thus far indicate that temporal focus influences the similarity of means most motivating to goal pursuit, but might means similarity affect when consumers desire to use the designated means to engage in goal pursuit? If such a reciprocal relationship does exist, our theorizing would suggest that consumers may prefer to expedite usage of relatively different means to goal attainment, but to delay usage of relatively similar means to goal attainment. We test these predictions by describing a personal training session using either similarity or differences language and measuring when participants anticipate using the means to pursue their fitness goal.

Design and Method

Forty undergraduate students at the University of Maryland participated in this study. Participants were randomly assigned to either the similar or different means condition.

We first asked participants to indicate whether they were currently pursuing a goal to be physically fit (yes-no). Two participants indicated that they did not have a fitness goal and were excluded from further analyses ($N = 38$). Next, we asked participants to imagine that they had hired a personal trainer to help them meet their fitness goal. As in study 5, participants read a description of an hour-long personal training session in which the trainer either emphasized use of similar or different exercises.

Next, we asked each participant two questions regarding when they would be likely to start working with the personal trainer. Specifically, we asked participants how likely they would be to take an available appointment with the trainer today versus one month from today (“If your trainer had an opening today [one month from today], how likely would you be to take it?”) on 7-point scales (1 = *Not at all likely*, 7 = *Very likely*). To compute a measure of propensity to delay goal pursuit, we subtracted each participant’s likelihood of taking an available training session today from their likelihood of taking an available training session next month. A positive score on this measure would indicate a preference to delay usage of means into the future, whereas a negative score on this measure would indicate a preference to expedite usage of the means.

Results and Discussion

Timing of Goal Pursuit. A one-way ANOVA on propensity to delay goal pursuit revealed a main effect of means similarity ($F(1, 36) = 5.15, p < .05$). As we anticipated, participants who read the description of similar (vs. different) means preferred to delay goal pursuit further into the future ($M_{\text{sim}} = 2.35, M_{\text{diff}} = .22$). Extending our paradigm, these results suggest that the relationship between temporal focus and means similarity may be reciprocal; in addition to temporal focus influencing the relative similarity of means most motivating for goal pursuit, means similarity may influence when in time consumers plan to use designated means for goal pursuit.

GENERAL DISCUSSION

Pursuing long-term self-control goals requires consumers to plan for goal pursuit both in the near future as well as the more distant future. When considering use of means to pursue these types of goals, consumers can plan to use the means immediately (e.g., eating the healthy snacks over the next week) or further into the future (e.g., eating the healthy snacks over the next several months). To the extent that the type of means (i.e., similar vs. different) consumers plan to use for goal pursuit may affect their motivation, understanding how timing interacts with means similarity to influence goal-directed motivation is an important line of inquiry.

Building on past work investigating effects of temporal construal on information processing (Förster 2009), we reasoned that consumers focused on pursuing a goal in the near future will spontaneously search for differences among means to goal attainment, whereas consumers focused on pursuing a goal in the far future will spontaneously search for similarities among means to goal attainment. We argued that when consumers plan to use sets of means

compatible with their temporally-induced search for similarities versus differences (i.e., a set of relatively similar vs. different means), the value from this experience of fit will transfer to increase motivation to pursue the associated goal.

We tested our propositions in a series of six studies, utilizing different manipulations of means similarity and multiple measures of motivation (including willingness to pay for the means to attainment). As predicted, consumers were more motivated by different (vs. similar) means when they planned to use the means for goal pursuit in the near future, but were more motivated by similar (vs. different) means when they planned to use the means for goal pursuit in the far future (studies 1, 2, 3, and 5). These findings are of particular note because they run somewhat contrary to common intuition. Whereas one might expect that over a longer time span consumers may have both the need and opportunity to use a greater variety of means, we find that people are actually less motivated by relatively different means in the far future. We further show that greater ease of processing differences (similarities) in the near (far) future underlies these effects (study 4). As was the case in studies 1, 2, 3, and 5, when the temporally-compatible identification of similarities versus differences was relatively easy, participants reported greater motivation to pursue their goal. In contrast, when the identification of similarities (differences) was made more difficult, compatibility between the temporal focus of goal pursuit and similarity of means did not increase motivation.

Importantly, we obtain support for our propositions with two different operationalizations of temporal distance: focusing participants on short versus long time horizons over which they would be using the means (studies 1 and 3) and holding constant the inter-consumption interval while varying whether the interval occurs in the near or far future (studies 2, 4, 5, and 6). That our effects were robust to these two different operationalizations of temporal distance

demonstrates both the construct validity (that effects are indeed due to temporal distance rather than confounds with different lengths of the consumption period) and external validity (that the effects will extend to short versus long consumption intervals) of our findings.

There are two plausible alternative accounts for our findings that warrant discussion. First, one could argue that consumers are more motivated by different (vs. similar) means in the near (vs. far) future because they are more concerned with satiation in the near future. Though this may be true, it is not clear how satiation concerns would explain the greater motivation arising from similar (vs. different) means in the far future. In contrast, the relative ease of processing similarities versus differences in the far future can explain the reversal. Second, one might reason that consumers are in fact more motivated by different (similar) means in the near (far) future because having more variety among means makes goal pursuit more feasible (a concern more salient in the near future), whereas having a less varied, more focused set of means makes goal pursuit more desirable (a concern more salient in the far future; Trope and Liberman 2000). To address this argument, we collected ratings on the feasibility versus desirability of having variety and consistency among means to goal attainment and found that, if anything, consumers seem to find having variety among means to be more desirable than feasible thereby casting doubt on the ability of feasibility versus desirability concerns to account for our effects.

Theoretical Contributions

Our findings contribute to the literatures on goal pursuit and temporal construal. Previous research has considered the motivational implications of how one plans to pursue a goal; for example, considering how the formation of specific implementation intentions increases goal-

directed motivation (Gollwitzer 1990). Less attention, however, has been paid to how plans to pursue a goal now or in the future affect motivation. Further, though past work has considered how consumers negotiate the pursuit of multiple conflicting goals over time (Dhar and Simonson 1999; Fishbach and Dhar 2005; Khan and Dhar 2006), the question of how consumers use multiple means to pursue a single goal over time has not been addressed in the literature. By considering how the timing of goal pursuit interacts with characteristics (i.e., the perceived similarity) of means to goal attainment to impact motivation, the present work begins to address this gap.

One implication of the present findings is that consumers may sometimes choose too little variety when they plan for goal pursuit in the far future. Whereas people might prefer low-variety (i.e., similar) sets of means when focused on the far future (indeed this was the pattern obtained in study 2), when the time comes for them to actually engage in goal pursuit they may prefer to have more variety among means instead. From this perspective, our results demonstrate the opposite pattern from that illustrated in the classic findings by Simonson (1990), where people chose more variety than they later wanted. We note that whereas in the Simonson paradigm, participants incorporated more variety into simultaneous than in sequential (i.e., separate) choices, in the present studies, all participants made judgments after seeing multiple items simultaneously (i.e., sets of means). Instead, we manipulated the time horizon that individuals adopted regarding when they would use the means for goal pursuit. The present findings suggest that when evaluating varied sets of goal-related items, consumers' judgments would be more favorable when they think about consuming the set in the near (vs. far) future.

This research also builds on recent work exploring the relationship between variety among means and motivation, and specifically the moderating role of goal progress (Etkin and

Ratner 2012). That work demonstrated that high-variety (vs. low-variety) sets of means are more motivating when individuals perceive they have made little progress toward goal attainment, whereas low-variety (vs. high-variety) sets of means are more motivating when individuals perceive they have made substantial progress toward goal attainment. One question that naturally arises when comparing the present findings to the results of Etkin and Ratner (2012) is how the temporal focus of goal pursuit relates to progress towards goal attainment. For instance, does a near (far) temporal orientation towards goal pursuit lead consumers to perceive less (more) progress towards achieving their goal?

We collected some additional data to investigate this relationship, manipulating temporal focus and asking participants ($N = 107$) to indicate agreement with the following statements: “I have far to go to achieve my goal,” “I have made a lot of progress towards achieving my fitness goal,” and “I anticipate making a lot of progress towards my fitness goal” on 7-point scales (1 = *Strongly disagree*, 7 = *Strongly agree*). We did not find any effects of temporal focus on these perceived progress measures (F 's < 1), suggesting that the present phenomenon is distinct from that documented by Etkin and Ratner (2012). Of course, in some situations, temporal focus and goal progress may co-vary. For example, when consumers attempt to lose a specified amount of weight, low progress towards goal attainment likely corresponds to adopting a far time horizon for goal pursuit and vice versa. Though the current findings suggest that temporal compatibility of means is itself a significant predictor of consumer motivation, a more thorough investigation of this relationship is an interesting direction for future research,

Also interesting to consider in future research is how the obtained effects of means similarity and temporal focus on motivation may generalize to other situations. Past work on temporal construal shows that non-temporal measures of distance, such as psychological

distance, probabilistic distance, and social distance, likewise affect how individuals mentally construe various events (e.g., Trope and Liberman 2003). Thus, it may be the case that the motivational effects of means similarity vary across these construal dimensions as well. For instance, might one's motivation to engage in social activities with friends vary depending on the perceived similarity of the friends and social proximity (i.e., perceived closeness) to the group?

Our conceptualization of means similarity could also be expanded to include a broader array of consumption situations. In the present studies we held the quantity of means constant in order to isolate the influence of means similarity on motivation, but the quantity of means available for goal pursuit may also vary. Extrapolating from the present findings, might offering consumers a single means for goal pursuit in the long run be more effective than a choice between several different means? Results of a recent article (Goodman and Malkoc 2012) may be interpreted to suggest that offering consumers a choice between multiple means (vs. a single means) might be evaluated more positively in the near future (i.e., when consumers prefer larger choice sets), but whether this preference would reverse in the far future remains an open question. Broadening the present framework along these dimensions may generate new insights for the relationship between means to goal attainment and consumer motivation.

Implications for Marketers and Consumers

This research offers novel insights to both marketing practitioners and consumers. To the extent that marketers have direct control over when to encourage consumers to pursue their goals and how much variety to offer in their product assortments, understanding how perceived product similarity and the anticipated timing of goal pursuit impacts willingness to pay may

allow marketers to make more informed product and promotion decisions. For example, when encouraging consumers to consider the importance of being healthy in the present (future), marketers may wish to highlight differences (commonalities) among goal-related product assortments, such as by strategically using contextual cues (see Mogilner, Rudnick, and Iyengar 2008), altering the language on product packaging, or reducing assortment variety.

Moreover, the results of study 6 suggest that marketers can emphasize commonalities versus differences among goal-related products and behaviors strategically to influence whether a consumer would want to use a product now or would be content (e.g., in light of a stockout) to wait to use the product later. Conversely, when encouraging consumers to select relatively similar (vs. different) product assortments, marketers may wish to highlight usage of those products in the distant (vs. near) future (e.g., “Meet your fitness goal this year” to sell similar items vs. “Meet your fitness goal today” to sell varied items).

Finally, with respect to consumers, many of the benefits of pursuing self-control goals such as being healthy are experienced in the future, not in the present. Thus, a key component of self-regulatory success is the ability to feel motivated when considering goal pursuit across time. Our results suggest one way for consumers to manage motivation is to strategically construct sets of means to match the timing of when they plan to use them. For example, consistent with the results of the follow-up to study 3 in the context of academic goals, students preparing to take the GREs next month may study harder if they use relatively similar prep books to prepare. In contrast, students preparing to take the GREs next week may study harder if they use relatively different prep books to prepare. Likewise, consumers saving for vacation next summer may save more money by reducing expenditures in related areas of their lives, whereas consumers saving for vacation next week may save more money by reducing expenditures in different areas of their

lives. These and other implications of our research may have far-reaching applications for helping consumers to be successful in pursuit of their long-term goals.

In sum, our research demonstrates how consumers' goal-directed motivation varies over time as a function of the perceived similarity of means to goal attainment. To the best of our knowledge, we are the first to identify the temporal compatibility of means to goal attainment as a predictor of goal-directed motivation. By furthering understanding of how properties of means (i.e., perceived similarity) affect motivation, our work better enables consumers, as well as marketers, to manage goal pursuit over time.

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FIGURE 1
EFFECTS OF TIME HORIZON AND IDENTICAL VERSUS VARIED MEANS ON
MOTIVATION
(STUDY 1)

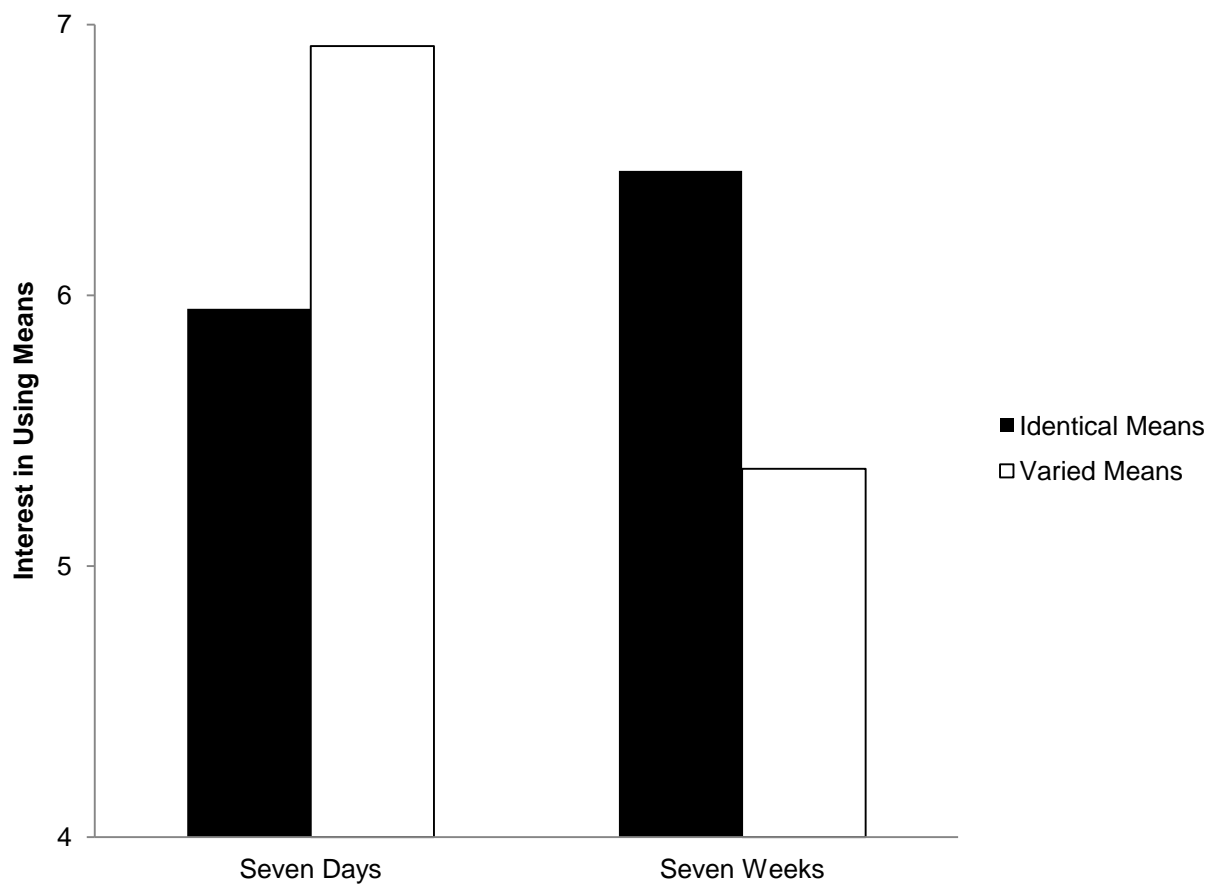


FIGURE 2
EFFECTS OF TEMPORAL FOCUS AND CHOSEN MEANS ON MOTIVATION
(STUDY 2)

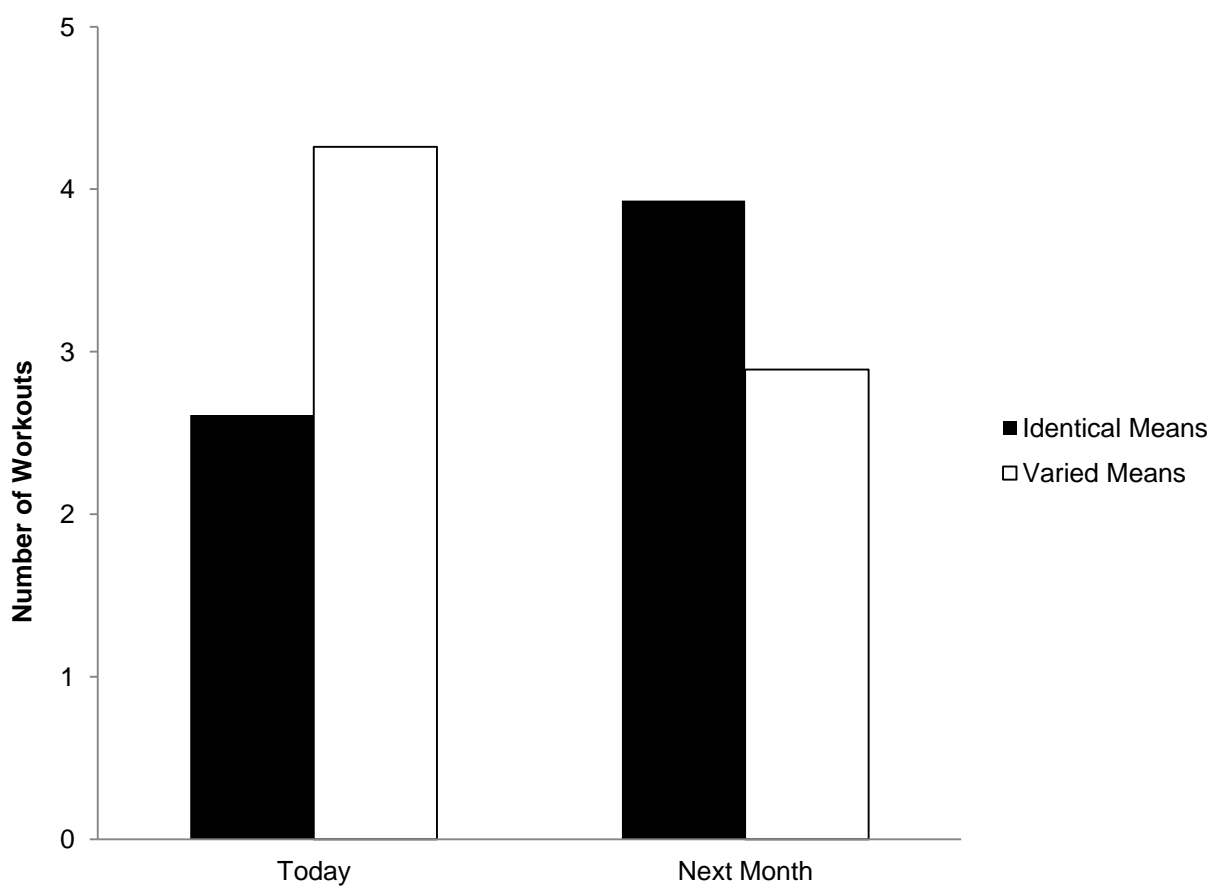


FIGURE 3
EFFECTS USING SELF-GENERATED MEANS IN A NEW GOAL DOMAIN
(STUDY 3)

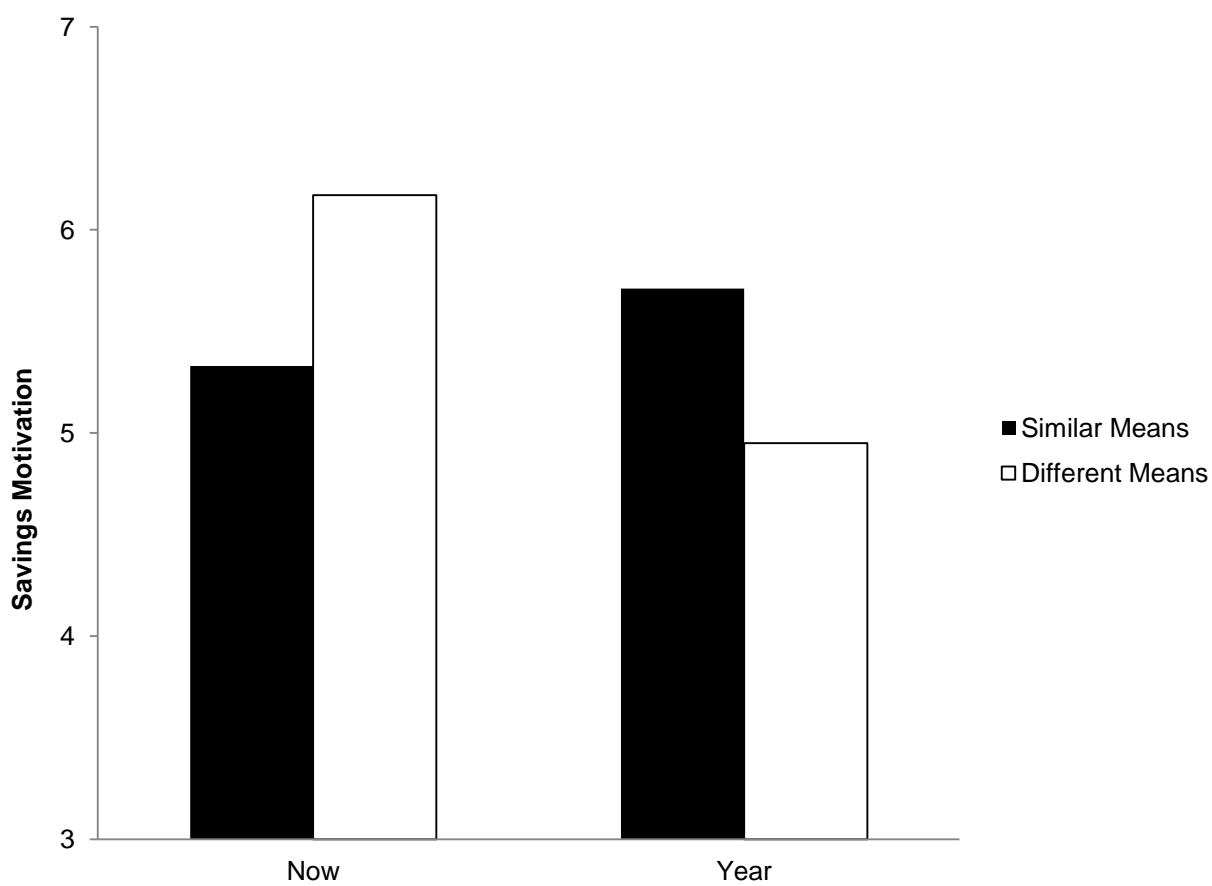
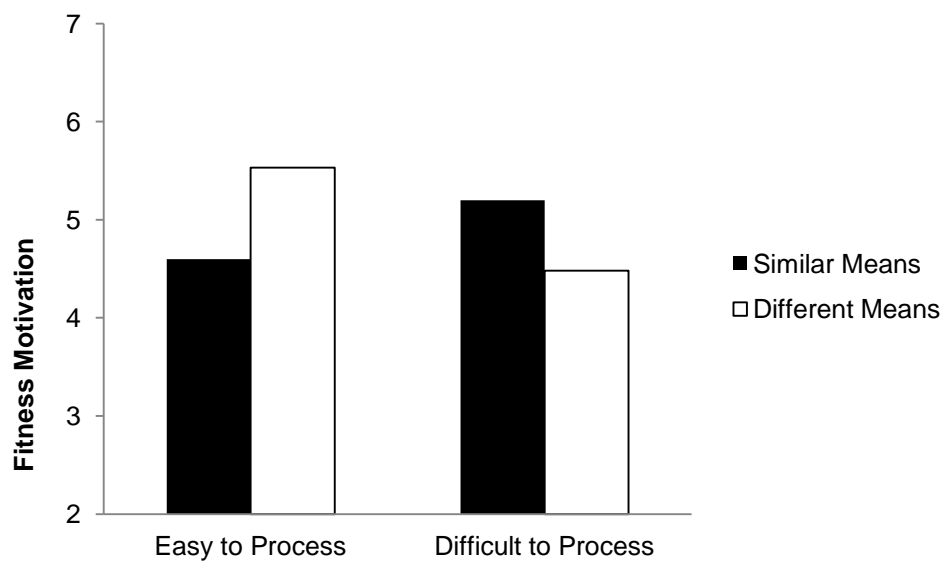


FIGURE 4
EASE OF PROCESSING MODERATES THE EFFECT OF MEANS SIMILARITY ON
MOTIVATION IN THE NEAR VS. FAR FUTURE
(STUDY 4)

Next Week



A Week in Six Months

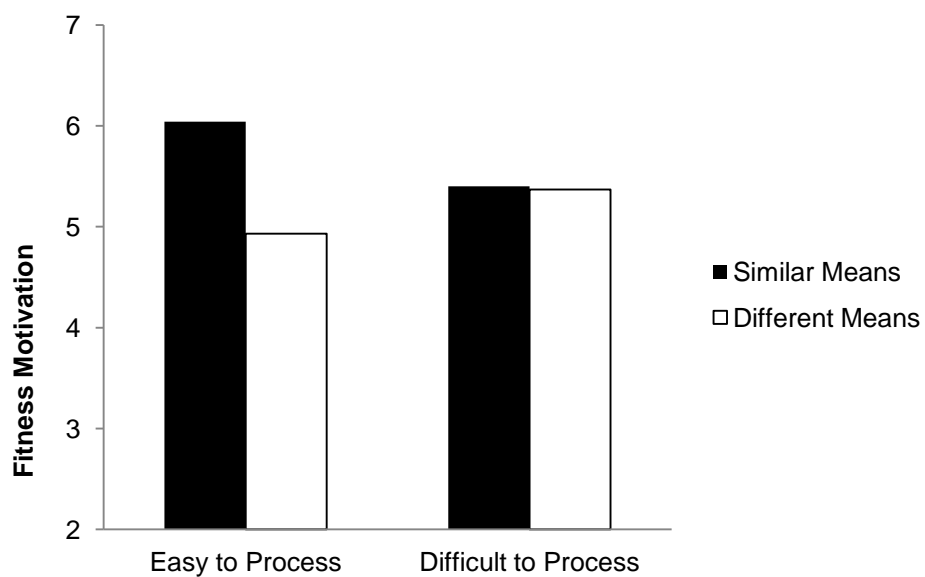


FIGURE 5
WILLINGNESS TO PAY FOR SIMILAR VERSUS DIFFERENT MEANS TO GOAL
ATTAINMENT
(STUDY 5)

