Shifting Closeness: Interpersonal Effects of Personal Goal Progress

Gráinne M. Fitzsimons
University of Waterloo

Ayelet Fishbach
University of Chicago

In this article, we examine how the shifting motivational priority of personal goals affects relationship closeness. We hypothesize that people will draw closer to significant others who are instrumental (vs. noninstrumental) for a goal that has not been progressing well—a goal that is thus high in motivational priority. Once the goal has progressed successfully, we predict that people will cease to draw closer to instrumental others. Five studies support these predictions by showing that the impact of goal progress on reduced preference for instrumental others (Experiment 1) depends on the framing of progress as partial attainment (vs. greater commitment, Experiment 2) and the intention to balance across goals (vs. focus on one goal; Experiments 3–4). We find that moving away from instrumental others post progress is functional, in that it allows for drawing closer to those who are instrumental for alternative goals (Experiment 5).

Interpersonal relationships are dynamic in nature. Day to day, these relationships fluctuate in perceived quality: Individuals feel more and less close to, committed to, and satisfied with their significant others (e.g., Murray, Bellavia, Rose, & Griffin, 2003; Wieselquist, Rusbult, Foster, & Agnew, 1999). In everyday life, what determines this waxing and waning of relationship outcomes? That is, what predicts the direction of one's movement toward, versus away from, significant others? In this research, we seek to explain the degree of closeness one feels to others as a function of the link between those others and the self's personal goals. In particular, we investigate how the motivational priority of goals for which the significant other is or is not helpful affects interpersonal closeness. We explore the possibility that when a goal is high in motivational priority, individuals draw closer to those who are instrumental (vs. noninstrumental) to the goal, but once the goal has sufficiently progressed and its motivational priority reduces, this increased closeness rapidly fades.

Research has suggested that interpersonal closeness can often be a function of a given partner's instrumentality for an active goal (Fitzsimons & Shah, 2008). However, the impact of goals on interpersonal closeness may be more complex than previously

thought. Specifically, we propose that the motivational priority of the active goal (i.e., its strength in the moment) determines feelings of closeness to significant others. By exploring how motivational priority affects interpersonal closeness, we not only wish to contribute to the understanding of fluctuations in relationship outcomes but also seek to demonstrate that interpersonal outcomes can provide useful insights on basic processes of self-regulation.

Interpersonal Consequences of Personal Goals

Although much is known about relationship closeness and intimacy (Aron, Aron, & Smollan, 1992; Aron, Aron, Tudor, & Nelson, 1991; Reis & Shaver, 1988), most of the existing research has understandably focused on factors internal to the relationship itself. Much less psychological research has been done to examine factors external to the relationship—that is, how the rest of people's lives spill over to influence their feelings about their relationship partners. The current research focuses on one such external factor, by testing the effects of ongoing personal goals on relationship closeness.

Interpersonal Effects of Active Personal Goals

In the domain of self-regulation, researchers have begun to examine how situational and individual differences in personal goals can shape interpersonal relationships (Impett, Gable, & Peplau, 2005; Vohs & Ciarocco, 2004; Vohs & Finkel, 2006). In one series of studies, people's feelings of closeness toward their significant others depended on the extent to which those significant others were instrumental for the self's goals (Fitzsimons & Shah, 2008). When significant others were encouraging the advancement of important active goals, people felt closer to them. Specifically, participants in these studies felt closer to others whom they perceived as instrumental (i.e., useful) in active

academic-achievement and fitness goals, such as a sibling who served as a role model. Participants also felt less close to others whom they perceived as noninstrumental (i.e., not useful) in these goals, such as a friend who parties all the time. Closeness was not the only relationship outcome to depend on instrumentality for an active goal: Ratings of relationship importance, as well as approach and avoidance behavioral tendencies, all showed the same pattern. Thus, active goals seem to lead to a general evaluative preference[1] for instrumental others. That is, goals cause people to feel more global positivity about instrumental others and more global negativity about noninstrumental others.

Beyond Activation: Interpersonal Effects of Shifts in Goals' Motivational Priority

Thus, activation of personal goals leads to an evaluative preference for others who are instrumental for the goal. However, in everyday life, goals are not just active or inactive. In everyday contexts, multiple goals are active at once, and the expression of any one active goal is far from guaranteed (Kruglanski et al., 2002). For example, on the bus to work, an advertisement for running shoes might activate fitness goals, the newspaper in one's lap might activate learning goals, and the attractive stranger across the aisle might activate romantic goals. In such a situation, multiple goals are active, but quite clearly, all these goals will not be expressed and will not shape the bus rider's thoughts and actions. In other words, the activation of a goal is not the only variable that determines whether a goal will impact one's psychological processes. Indeed, the extent to which an active goal operates to guide psychological processes depends on its current motivational priority—that is, the extent to which that goal is at this moment being prioritized relative to other active goals (Emmons & King, 1988; Fishbach & Zhang, 2008; Higgins, 1989; Kruglanski et al., 2002).

As goals shift in motivational priority from one context to the next, how does this influence the extent to which those goals impact interpersonal relationships? We propose that when goals are high in motivational priority, they will have greater influence on feelings of closeness to others. For example, imagine a prospective lawyer has a goal to pass the bar exam and a goal to maintain her fitness. In the months before she takes the exam, the extent to which her romantic partner is instrumental for her studying goals (e.g., by taking care of other household tasks so she can focus on studying) should be particularly impactful in determining the closeness of their relationship. Because the motivational priority of this important goal is high, her partner's goal instrumentality should matter a great deal. In contrast, we propose that when goals are low in motivational priority, they will not influence the extent to which people feel close to significant others, even if they remain active. If the prospective lawyer does really well on a practice test one afternoon, but cannot fit into her favorite jeans, presumably the priority of her studying goals would drop, whereas the priority of her fitness goals would rise. In this latter situation, we suggest that the extent to which her romantic partner is instrumental for her studying goals will be less impactful in determining her feelings of closeness, and his instrumentality for her fitness goals would be more impactful. Both goals are active in both of these examples: All that has changed is the relative priority of the two goals. We propose that as active goals fluctuate in motivational priority across time, their effect on closeness will fluctuate

as well. In this fashion, personal goal progress can impact the daily ups and downs of interpersonal relationships.

Effects of Progress on Motivational Priority

As suggested by the prior example, to the extent that an individual feels that an active goal has successfully progressed, the goal's motivational priority will (temporarily) decrease. This idea appears in classic theoretical models of self-regulation (Carver & Scheier, 1990, 1998; Locke & Latham, 1990), in which it is proposed that when people perceive that they have not been progressing as well as they would like on a given goal, they increase their effort. In their influential discrepancy-feedback model, Carver and Scheier (1990) describe this latter phenomenon as progress-induced coasting (Carver, 2003): Fast goal progress is thought to induce a sense of partial goal attainment, signaling to the individual that less effort is needed, and thus, coasting ensues.

Responding to progress by reducing effort may seem counterproductive—how can individuals ever achieve anything if they give up when they do well?—but the phenomenon can potentially play a functional role in goal pursuit. By decreasing the relative motivational priority of a progressed goal, individuals can balance across all of their important goals by increasing the relative priority of less progressed goals. This suggestion is consistent with Förster, Liberman, and Higgins's (2005) reasoning that the inhibition of a goal postcompletion serves to promote the pursuit of other goals. Thus, we propose that goal pursuers are lowering a goal's priority upon making progress not necessarily to relax or rest on their laurels (Amir & Ariely, 2008) but for the functional purpose of re-engaging in other important pursuits. In this fashion, responding to progress by reducing effort on the goal at hand may ultimately serve to maximize success across the whole system of goals the individual seeks to advance.

Empirical support for the effects of progress on shifting motivational priority comes from recent research on the dynamics of self-regulation (Fishbach, Dhar, & Zhang, 2006; Fishbach & Zhang, 2008; Koo & Fishbach, 2008), which shows that when individuals feel they have made progress on a goal, they are more likely to balance the progress on that goal by choosing actions consistent with other goals. For example, when dieters were led to feel that they had progressed on their dieting goal—by completing a biased scale that made their achieved weight loss seem more substantial—they were more likely to choose a chocolate bar as a reward, an action clearly inconsistent with their goal of losing more weight but consistent with their desire to enjoy sweets (Fishbach & Dhar, 2005).

Moderators of the Progress–Motivation Link

Assuming the effects of goal progress do serve to promote re-engagement in other goals, progress should not uniformly decrease motivational priority (and thereby, a preference for instru-

---

[1] Reflecting the fact that relationship closeness is one metric of global positivity toward the partner, Fitzsimons and Shah (2008) described the difference in closeness between instrumental and noninstrumental others as an evaluative preference. We use that linguistic shortcut here, describing participants who feel closer to instrumental others than to noninstrumental others as preferring instrumental others.

mental others). Rather, this should occur only when the decrease in motivational priority would maximize overall success in goal pursuit. In the current research, we examine how factors that should theoretically moderate the impact of progress on motivational priority account for effects of goal progress on interpersonal closeness.

One factor that moderates the impact of progress on a goal's motivational priority is whether the goal pursuer is focused on multiple goals or more narrowly focused on one goal. It is often not feasible for an individual to maintain exclusive focus on one goal because other goals need to be pursued before the current goal can be completed. For example, imagine that a college professor has a goal to write a book. It would probably not be in the professor's best interest to ignore all other goals until this one goal is completed. Imagine the disarray that would ensue for her teaching, her family, and her health if she were to do so. Self-regulatory success within multiple-goal contexts requires balancing of goal pursuits, in particular when the goals are ongoing or take a long time to complete. When there is a need for balancing across goals, progress cues may act as a signal that the current goal is proceeding as planned, allowing an individual to turn to another goal. Therefore, we predict that people who make goal progress will draw away from instrumental others for the focal goal and draw closer to instrumental others for background goals.

However, some environments may promote focus on the pursuit of only one goal. In a single-goal environment, there is a functional benefit to maintaining the goal's motivational priority until it is completed. For example, if someone has a goal of completing a class at the gym, it would be unwise for him to disengage from that goal partway through class upon noting his successful progress. His overall self-regulatory success is maximized to the extent that he stays focused. In such situations, progress may not decrease the goal's motivational priority and might actually increase the effort put forward, a phenomenon described as the *goal gradient* or the *goal-looms-larger effect* (Brown, 1948; Förster, Grant, Idson, & Higgins, 2001; Förster, Higgins, & Idson, 1998; Hull, 1934). In illustrative studies, participants exerted greater motivation as they approached the end state of an assigned experimental goal (Förster et al., 1998). This goal-looms-larger effect is likelier to occur within single goal contexts, when goal pursuers are focused on one goal, as there is no functional benefit to disengaging from the goal. We therefore suggest that within single goal contexts, progress will not lead to a reduction in a goal's motivational priority. We accordingly predict that the preference for instrumental others will decrease if one makes progress on a goal in a multiple-goal environment but will not decrease in a single-goal environment.

Of course, even when multiple goals are technically pursuable, there are circumstances that likely limit people's attentiveness to the presence of multiple goals and, thus, limit the negative effects of progress on motivational priority and preference for instrumental others. For example, if impending deadlines render a goal's advancement urgent, people may ignore the presence of multiple goals and instead focus on the urgent goal. Similarly, if people become absorbed in a given goal pursuit, they may ignore all other goals. We predict that any time people focus exclusively on one goal, even if other goals are pursuable, progress will not have a negative effect on motivational priority and, indeed, may have a positive effect because the person is practically operating within a single-goal environment.

Finally, one factor that has been shown to moderate the effects of progress on motivation is the signal from successful pursuit—that is, whether individuals interpret that success as evidence of progress that was made or commitment that was expressed (Fishbach et al., 2006). When individuals infer from successful pursuit that the value they assign to this goal is higher (Atkinson, 1964; Bem, 1972; Feather, 1990) or that they are highly capable of successfully pursuing this goal (Bandura, 1986), they infer goal commitment. Inferences of commitment, in turn, increase the motivational priority of the goal, leading people to focus on (or highlight) this goal's advancement. For example, when gym users were led to infer from a successful (vs. unsuccessful) exercise session that their own commitment to health goals had increased, they felt more motivated to continue pursuing health goals, as indicated by their increased likelihood of making goal-consistent healthy snack choices. Only when gym users were led to infer from a successful (vs. unsuccessful) exercise that they had made sufficient progress toward the goal of being healthy did their likelihood of making goal-consistent healthy snack choices decrease (Fishbach et al., 2006). Thus, when people are thinking of goal pursuits as expressing commitment, pursuing the goal does not lower its motivational priority and should thus not reduce the preference for instrumental others. This process may serve to allow committed goal pursuers to continue to press forward on their goal even as they get closer to goal attainment.

Current Research

We investigate how personal goal progress shapes feelings about others who help and hinder that goal's advancement. We hypothesize that progress on personal goals influences relationship closeness by affecting the goals' motivational priority. Therefore, in our experiments, we manipulate perceptions of progress toward common personal goals under conditions that we predict will moderate the impact of progress on the goals' motivational priority. We then examine how perceptions of progress affect the feelings about relationship partners who are instrumental or noninstrumental for the goal. We test our hypothesis in two goal domains: Academic achievement and health.

We suggest that the motivational priority of a goal will be reduced—and thus, its influence on feelings of closeness to instrumental others will be weakest—when goal progress is perceived to be high (Experiment 1), unless that high progress can be interpreted as a sign of goal commitment (Experiment 2) and unless the goal pursuer is focusing on pursuit of a single goal (Experiments 3 and 4). We further predict that these effects of goal progress reflect people's tendency to respond to goal progress by engaging in goal balancing; that is, we expect participants to respond to progress cues on one important goal by turning to others who are instrumental for alternative, important goals (Experiment 5).

Experiment 1: Goal Progress Reduces Preference for Instrumental Others

Because goal progress reduces the motivational priority of a goal, we predict that people's preference for helpful others will dissipate when the goal is progressed. In Experiment 1, we examine the effects of perceived progress on an achievement goal on college students' evaluations of instrumental and noninstrumental

significant others. We hypothesize that when students perceive they have made low progress on an achievement goal, they will feel closer to achievement-instrumental others than to noninstrumental others; however, when students perceive they have made high progress, they will cease to feel closer to achievement-instrumental others.

Method

Participants. Sixty-three students (44 women, 19 men) participated in this study. Gender did not produce a main effect or any interactions ($Fs < 1$) and was thus dropped from further analysis.

Materials and procedure. This study had a 3 (progress: low vs. control vs. high) × 2 (other type: instrumental vs. noninstrumental) mixed-subjects design.

Participants began by completing a computerized version of a goal-instrumentality measure (Fitzsimons & Shah, 2008). In this measure, participants nominate significant others (friends, family members, or romantic partners) who facilitate or do not facilitate their achievement of various goals. As in Fitzsimons and Shah (2008), we defined facilitation in the following way: "When we say that this person 'facilitated' your achievement of a specific goal, we mean simply that this person's existence in your life makes it easier for you to make progress toward that goal. To say someone does not facilitate a specific goal doesn't imply anything negative about this person or your relationship. For example, many friends facilitate at least one goal, but it is rare that any one friend facilitates many goals." After reading instructions, participants saw a goal appear onscreen, one at a time. For each goal, the first question was about an instrumental other: "Please give the first name of someone who facilitates your goal to (blank)." In brackets under that line, it read, "That is, this person makes it more likely that I'll succeed at this goal." After participants typed in that name, they were asked to indicate the gender of the person and the length of their relationship (these measures were included only to provide a possible alternative purpose for the task). The next question was about a noninstrumental other for the same goal: "Please give the first name of someone who DOES NOT facilitate your goal to (blank)." In brackets under that line, it read, "That is, this person does not make it more likely that I'll succeed at this goal."

Participants nominated others for 10 goals, including goals to be in good shape, to achieve academically, to relax more, and so on. We used the responses to the first two items, which were about the goal "to achieve academically," as our main dependent variables; the other items served to remind participants of multiple important goals they had, as well as to reduce attention to the achievement-related items. As a further distracter, participants were then asked to provide the names of all other close friends and relationship partners whom they had not yet mentioned, allegedly because a later task would require all of these names.

Participants then completed a filler task (a set of irrelevant personality questionnaires) for approximately 10 min before completing a single-item manipulation of perceived progress in the academic achievement domain (adapted from Koo & Fishbach, 2008). In the high-progress condition, this manipulation focused participants' attention on the progress achieved to date; in the low-progress condition, the manipulation focused their attention on the progress still ahead to achieve the goal. Specifically, the high-progress item read, "In thinking about the past and the work

you have done so far, how much progress have you made toward your academic achievement goals?" This item was designed to lead participants to think back over all the work they had already completed, thus temporarily highlighting a sense of progress. In the low-progress condition, in contrast, the item read, "In thinking about your future and the work you have remaining, how much progress do you still have to make toward your academic achievement goals?" This question was designed to cause participants to focus forward, on all the work still to come, and thus temporarily highlight a lack of progress.[2] Participants provided their answers on a 7-point scale (1 = *none*; 7 = *a great deal*). To ensure a similar level of goal activation, we asked control participants to write down their academic achievement goals. The item read, "Please think about your academic achievement goals and type them into the space provided." Responses from control participants tended to be quite straightforward: For example, participants wrote things like, "I want to do really well at university" or "I want to be successful in my courses this year and next."

All participants then completed the main dependent measure: closeness ratings of significant others earlier named as instrumental and noninstrumental for the goal of academic achievement. The computer program automatically inserted the names of significant others into the question stems. Specifically, closeness ratings consisted of three measures. Participants completed the modified Subjective Closeness Inventory (SCI, Berscheid, Snyder, & Omoto, 1989), which asked, "Relative to your other relationships, how close are you and (Name)?" and "Relative to what you know about other people's relationships, how close are you and (Name)?" (9-point scales, 1 = *not at all close*; 9 = *extremely close*). In addition, participants' completed Aron et al.'s (1992) Inclusion of Others in Self (IOS) Scale, a one-item pictorial measure of closeness in which participants were asked to choose which of seven increasingly overlapping pairs of circles best represents their relationship. The order was counterbalanced, with half the participants first answering questions about their instrumental other and half first answering questions about their noninstrumental other. Order did not produce a main effect or interact with any of the variables.

Results and Discussion

As a manipulation check, we examined participants' responses to the progress item (only participants in the high and low progress conditions completed this item as part of the manipulation). As expected, and as in the pilot study, participants in the high-progress condition indicated they had made more progress ($M = 5.68$; $SD = 1.25$) than did participants in the low progress condition ($M = 4.40$; $SD = 1.47$), $F(1, 40) = 9.35$, $p < .01$.

To test our primary hypothesis, we first created a composite score for the closeness measures, by converting the IOS scale to a 9-point scale and taking the mean of this converted IOS scale and the two SCI items ($\alpha = .94$ for ratings of instrumental others, and $\alpha = .89$ for ratings of noninstrumental others). We then performed

---

[2] In a pilot study, low versus high progress was manipulated with these items. The manipulation influenced ratings of perceived progress on the goal ($M_{low} = 4.47$; $SD_{low} = 1.19$; $M_{high} = 5.54$; $SD_{high} = 1.20$), $F(1, 26) = 5.63$, $p = .025$.

a repeated-measures analysis of variance (ANOVA) on the composite closeness score with progress condition (low, high, control) as a between-subjects factor and other type (instrumental, noninstrumental) as a within-subjects factor. A main effect for other type emerged, indicating that overall, participants reported greater closeness to instrumental others ($M = 6.56$; $SD = 1.81$) than to noninstrumental others ($M = 5.29$; $SD = 1.78$), $F(1, 60) = 18.08$, $p < .001$. No main effect for progress condition emerged ($F < 1$, ns).

This analysis yielded the predicted two-way interaction between progress condition and other type, $F(2, 60) = 4.14$, $p = .02$. As shown in Figure 1, participants in both the control-progress, $F(1, 20) = 5.20$, $p = .03$, and the low-progress, $F(1, 19) = 30.52$, $p < .001$, conditions reported greater closeness to their instrumental other ($M_{control} = 6.75$; $SD = 1.88$; $M_{low} = 6.95$; $SD = 1.55$) as compared with their noninstrumental other ($M_{control} = 5.45$; $SD = 1.85$; $M_{low} = 4.55$; $SD = 1.53$). As we predicted, this difference was not present for participants in the high-progress condition ($M_{instrumental} = 6.03$; $SD = 1.93$; $M_{noninstrumental} = 5.80$; $SD = 1.78$); $F < 1$, ns.

In support of our hypothesis, this experiment showed initial evidence that the interpersonal consequences of others' instrumentality depend on goal progress: When goal progress was low, instrumentality increased closeness, but when goal progress was high, instrumentality did not affect closeness. We suggest that high progress temporarily lowered the motivational priority of participants' achievement goals, thus leading to a reduction in self-regulatory strategies designed to promote that goal, such as evaluating social relationships in terms of instrumentality.

Notably, however, good performance does not always decrease a goal's motivational priority. When people interpret successful goal performance as a sign of greater commitment to the goal, successful performance should increase the motivational priority of the goal. In this way, successful performance should enhance closeness to instrumental others. We conducted another experiment to test for this hypothesis.

Experiment 2: Goal Progress Versus Goal Commitment

People's interpretation of their successful performance—whether they see it as progress toward the goal or commitment to
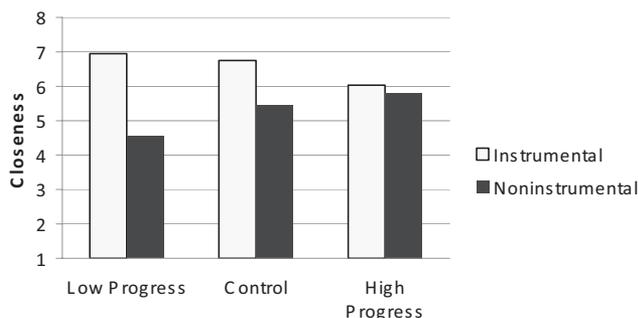
the goal—determines the motivational priority of the goal. In Experiment 2, we test the hypothesis that this interpretation would thereby influence how close people feel toward instrumental others. Specifically, if people see their performance as evidence of progress toward a goal, as they did in Experiment 1, the motivational priority of the goal should decrease and the instrumentality of others should no longer affect how close one feels to those others. However, if people see their performance as evidence of commitment to their accessible goal, the motivational priority of the goal should remain high, and the instrumentality of others for that goal should continue to influence how close one feels toward them. To test this hypothesis, we manipulated whether the same action—a recently completed academic project—was perceived as a signal for high progress or high commitment toward academic achievement goals, and we measured evaluations of significant others who were instrumental or noninstrumental for achievement. Furthermore, we measured perceptions of commitment and progress and investigated the extent to which subjective inferences of commitment and progress predicted evaluations of others.

Method

Participants. Fifty-six students (30 women, 26 men) participated in this study. Gender did not produce a main effect or any interactions ($Fs < 1$) and was thus dropped from further analysis.

Materials and procedure. This study had a 3 (framing: progress vs. control vs. commitment) × 2 (other type: instrumental vs. noninstrumental) mixed-subjects design.

Participants began by completing a version of the computerized goal instrumentality measure and filler items, as described in Experiment 1. All participants then described their long-term academic achievement goals—those they hoped to accomplish over the upcoming years—and an academic project they had recently, successfully completed, such as a writing project, a presentation, or a science laboratory assignment. Using this procedure, all participants thought about recent successful performance in the academic achievement domain.

We manipulated participants' interpretation of successful performance by asking them to consider either the progress they made toward their long-term academic achievement goal or their commitment to that goal, based on this performance (see also Fishbach & Dhar, 2005). Specifically, those in the progress-frame condition were asked to indicate "How much progress toward your academic achievement goals did you make by completing this task?" Those in the commitment-frame condition were asked to indicate "How much commitment to your academic achievement goals did you show by completing this task?" (Ratings were made on 7-point scales; $1 = none$; $7 = a great deal$). Those in the control progress condition described their long-term achievement goals and an ongoing academic project (to ensure activation of their academic achievement goals.) All participants then rated their closeness to achievement-instrumental and noninstrumental others as in Experiment 1.

Figure 1. Experiment 1: Mean closeness rating of others as a function of other type (instrumental vs. noninstrumental) and progress condition (low, control, high).

Results and Discussion

A composite score was created for the closeness measures by converting the IOS scale to a 9-point scale and taking the mean of this converted IOS scale and the two SCI items ($\alpha = .86$ for ratings

of instrumental others, and $\alpha = .73$ for ratings of noninstrumental others). A repeated-measures ANOVA with framing condition (control, progress, commitment) as a between-subjects factor and other type (instrumental, noninstrumental) as a within-subjects factor was performed on this closeness score. A significant main effect of other type emerged, $F(1, 53) = 22.61$, $p < .001$, indicating that overall, people reported greater closeness to instrumental others than to noninstrumental others. No main effect of framing condition emerged ($F < 1$, ns).

As predicted, the analysis yielded the predicted two-way interaction between progress condition and other type, $F(2, 53) = 3.29$, $p < .05$. As shown in Figure 2, participants in both the commitment, $F(1, 18) = 10.48$, $p = .005$, and control, $F(1, 14) = 16.35$, $p = .001$, framing conditions reported greater closeness to their instrumental other ($M_{commitment} = 6.66$, $SD = 1.98$; $M_{control} = 7.22$, $SD = 1.42$) than to their noninstrumental other ($M_{commitment} = 4.86$, $SD = 1.61$; $M_{control} = 4.75$, $SD = 1.58$). This difference did not emerge in the progress framing condition ($M_{instrumental} = 5.98$, $SD = 1.88$; $M_{noninstrumental} = 5.52$, $SD = 1.56$; $F < 1$, ns). Upon perceiving that they had made progress, participants ceased to use instrumentality in achievement as a metric for evaluating closeness to their significant others.

Replicating the findings of Experiment 1, when successful goal-directed action—in this case, a recent academic project—indicated that progress had been made in an overarching academic achievement goal, participants did not feel closer to achievement-instrumental (vs. noninstrumental) others. However, when participants interpreted that same successful performance as an indication of their commitment to the goal, they felt closer to instrumental others than to noninstrumental others, presumably because framing their action as commitment led participants to maintain the goal's motivational priority even after successful action.

We next turned to examine subjective ratings provided by participants (in the two experimental conditions) in response to the manipulation. In the current experiment, participants rated the extent to which their actions demonstrated either commitment or progress. We hypothesize that a sense of commitment increases preference for instrumental others, whereas a sense of progress decreases preference for instrumental others. To examine this hypothesis, we constructed a difference score to reflect the evaluative preference for achievement-instrumental others over noninstrumental others, subtracting closeness scores for noninstrumental
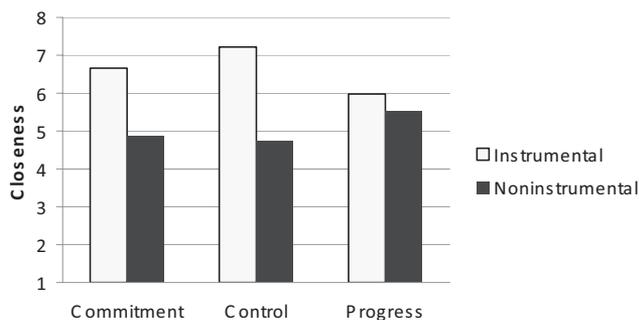

Figure 2. Experiment 2: Mean closeness rating of others as a function of other type (instrumental vs. noninstrumental) and framing condition (control, progress, commitment).

others from those for instrumental others (as in Fitzsimons & Shah, 2008). Positive numbers thus reflect that achievement-instrumental others are rated as closer than noninstrumental others. Next, we conducted a series of within-cell correlations between this evaluative preference score and self-ratings of commitment and progress. As predicted, for participants in the commitment framing condition, self-ratings of commitment positively predicted preference for instrumental others ($r = .48$, $p = .04$). In contrast, for participants in the progress framing condition, self-ratings of progress negatively predicted preference for instrumental others ($r = -.42$, $p = .05$).

Overall, as we predicted, in the commitment-frame condition, participants showed a preference for achievement-instrumental others, just as they did when the goal was simply activated (in the control condition). In the progress-frame condition, they showed no such preference. When a past goal-directed action signals goal commitment, the goal's motivational priority remains high: People appear to feel motivated to continue working toward their goal, and they express an evaluative preference for others who advance their achievement goals. However, when people see the same past goal-directed action as a signal for progress toward the goal, people appear to feel less motivated to continue working toward this goal, thus, they express a lack of preference for goal-instrumental others.

Having established the effect of progress on preference for instrumental others in two studies, we now turn to examine the impact of features of the goal system that we believe may moderate that effect. In Experiment 3, we test whether goal progress decreases preference for instrumental others only when multiple goals (vs. a single goal) are emphasized; Experiment 4 tests whether, within a multiple goal environment, a decrease in preference for instrumental others occurs only when goal pursuers are concerned with balancing multiple goals (vs. advised to maintain focus on a single goal).

Experiment 3: Single Versus Multiple Goals

In Experiment 3, we examine whether features of the goal context that influence the impact of progress on a goal's motivational priority will affect preferences for goal-instrumental others. In particular, we investigate the hypothesis that progress on an active goal increases closeness to instrumental others when a single goal is emphasized and decreases closeness to instrumental others when multiple goals are emphasized. As noted in Experiments 1 and 2, because the initial questionnaire asked about a number of goals, participants held multiple accessible goals when completing the dependent measures; we believe that awareness of multiple goals is a necessary condition for our effects to emerge. In Experiment 3, we test this idea by manipulating awareness of multiple goals.

In single goal contexts, we suggest that it is most beneficial to respond to progress by maintaining or increasing effort toward the goal at hand (Förster et al., 1998; Hull, 1934). However, in multiple goal contexts, it may not be beneficial to do so. For example, if a person is only concerned with satisfying her desire to learn about a recent, current event and has nothing else on her mind, she should pursue this goal, reading news articles and blog posts, until she is completely satisfied. If, however, the person also hopes to get some work done, she should disengage from the

learning goal after making satisfactory progress. We thus predict that in single goal contexts, individuals will be unaffected by progress information, maintaining focus on the goal at hand and feeling closer to instrumental others than to noninstrumental others. In contrast, we predict that in multiple-goal contexts, individuals will use progress information as a cue to reduce the priority of the progressing goal and will feel equally close to instrumental and noninstrumental others for the focal goal.

In this experiment, we use a different manipulation of goal progress—namely, a social comparison procedure, in which we asked participants to make either a neutral or a downward social comparison (Festinger, 1954) in terms of their progress in academic achievement. Comparing oneself with peers who (at least in the participants' eyes) are progressing less well on academic achievement should instill a temporary feeling of good progress, whereas comparing oneself with peers who are progressing similarly on academic achievement should instill a feeling of relatively less progress. This manipulation has the benefit of not referring to completed or past actions, like the manipulations in Experiments 1 and 2.

Method

Participants. Seventy-two undergraduate students (45 women, 27 men) from a prestigious American university participated in the study. Gender did not produce a main effect or any interactions ($Fs < 1$) and was thus dropped from further analysis.

Materials and procedure. This study had a 2 (progress: low vs. high) × 2 (goal focus: single vs. multiple goals) between-subjects design.

Participants began by nominating others who were instrumental and noninstrumental for the participants' academic achievement goal, using similar wording to that used in earlier studies, but only referencing academic achievement, not a whole list of goals. Participants then completed either a low- or high-progress manipulation for the goal of academic achievement. Specifically, participants were asked to compare their progress on academic achievement with either the average U.S. college student (presumably a downward social comparison for this elite academic sample) or the average student at their own university (presumably a more neutral comparison), using a 1–7 scale from "much less progress than average" to "much more progress than average." We speculated that when comparing themselves with the average U.S. college student in terms of their academic achievement goals, participants would feel they were making better progress than when comparing themselves with their fellow elite students, because of the high academic performance of their peers.[3]

To the progress manipulation, we added a short description of the importance of achievement goals that contained our manipulation of multiple versus single goal focus. In the multiple-goal focus condition, participants read that although academic achievement is predictive of success and happiness in life, community involvement and social activities are just as important, and that pursuing a variety of goals predicts better outcomes. In the single-goal focus condition, participants read that although community involvement and social activities are rewarding, academic achievement is by far the most predictive of success and happiness in life, and that focusing on pursuing achievement predicts better outcomes.

Via this manipulation, we temporarily increased the priority of either multiple goals (academic achievement, community involvement, and social activities) or a single goal (academic achievement). Finally, participants evaluated their closeness to their achievement-instrumental and noninstrumental others using the same closeness measures as in earlier studies.

Results and Discussion

A composite score was created for the closeness measures, by converting the IOS scale to a 9-point scale and taking the mean of this converted IOS scale and the two SCI items ($\alpha = .81$ for ratings of instrumental others, and $\alpha = .70$ for ratings of noninstrumental others). For the sake of simplicity (given the additional independent variable in this experiment), we also constructed a difference score to reflect the evaluative preference for achievement-instrumental others over noninstrumental others, subtracting closeness scores for noninstrumental others from those for instrumental others (as in Fitzsimons & Shah, 2008). Positive numbers thus reflect that achievement-instrumental others are rated as closer than are noninstrumental others.

We performed a between-subjects ANOVA with progress framing condition (low vs. high) and goal focus condition (single vs. multiple goals) as between-subjects factors on the closeness difference score. A marginal main effect of goal focus emerged, $F(1, 68) = 3.13$, $p = .08$, indicating that participants showed a greater preference for achievement-instrumental others under single goal focus, as opposed to multiple goals. This marginal main effect, although unpredicted, is logical in that the achievement goal may take on greater importance or salience in the single-goal focus condition, thus causing participants to generally strengthen their preference for others who are instrumental to that goal.

As predicted, and as illustrated in Figure 3, the ANOVA yielded a two-way interaction, $F(1, 68) = 6.08$, $p = .02$. In the multiple-goal focus condition, the progress manipulation affected closeness ratings, $F(1, 68) = 4.90$, $p = .03$, such that participants' evaluative preference for instrumental others was greater in the low-progress condition ($M = 1.74$, $SD = 2.24$) than in the high-progress condition ($M = 0.41$; $SD = 1.90$). In the single goal focus condition, participants' preference for instrumental others

---

[3] Indeed, in a pilot study with this manipulation, participants rated their progress as significantly higher in the high-progress (average U.S. student comparison group) condition ($M = 5.58$) than in the low-progress (average fellow student comparison group) condition ($M = 4.41$), $F(1, 51) = 11.15$, $p < .01$.

[4] Repeated measures analyses show a consistent pattern of results. In the multiple-goal focus condition, participants who perceived they had made low progress reported greater closeness to instrumental others ($M = 6.32$; $SD = 1.64$) than noninstrumental others ($M = 4.59$; $SD = 1.66$), $F(1, 18) = 11.39$, $p < .01$, whereas participants who perceived they had made high progress reported similar levels of closeness to instrumental ($M = 5.48$; $SD = 1.58$) and noninstrumental ($M = 5.08$; $SD = 1.27$) others ($F < 1$, ns). In the single-goal focus condition, participants who perceived that they had made low progress reported greater closeness to instrumental ($M = 6.03$; $SD = 1.56$) than to noninstrumental others ($M = 4.60$; $SD = 0.96$), $F(1, 14) = 11.71$, $p < .01$; participants who perceived they had made high progress showed the same pattern, reporting greater closeness to instrumental others ($M = 6.24$; $SD = 1.15$) than to noninstrumental others ($M = 4.00$; $SD = 1.39$), $F(1, 19) = 49.98$, $p < .001$.
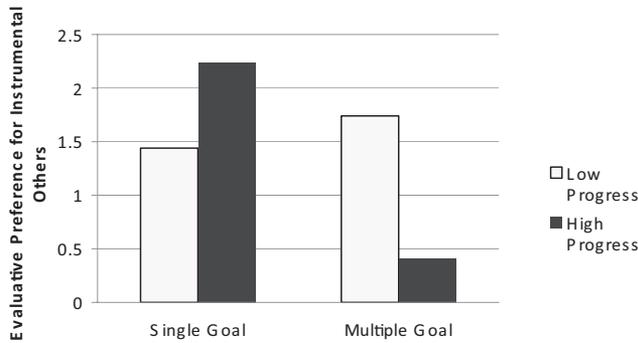
Figure 3. Experiment 3: Mean evaluative preference for instrumental others (i.e., difference score subtracting closeness to noninstrumental other from closeness to instrumental other) as a function of progress condition (low vs. high) and goal context (single vs. multiple goals).

was not significantly affected by progress condition, $F(1, 68) = 1.67$, $p = .20$; the pattern of data suggests that participants maintained (and indeed, nonsignificantly strengthened) their preference for achievement-instrumental others when they perceived they had made high progress ($M = 2.24$, $SD = 1.62$), compared with low progress ($M = 1.44$, $SD = 1.42$).[4]

When participants focused on multiple goals, high perceived progress on the achievement goal erased the effect of instrumentality on closeness evaluations, as it has done in previous studies. When participants focused exclusively on the achievement goal, however, the preference for achievement-instrumental others was maintained in the high-progress condition. These findings support our hypothesis that progress will decrease the priority of a goal only when multiple goals are active. The self-regulatory system may be tuned to progress feedback as a signal to reduce the priority of the progressed goal when there are other important goals to attend to, but not otherwise.

Experiments 1–3 examined academic achievement goals among college students; thus, it is possible that our effects may be limited to this specific goal or sample. Furthermore, it is possible that relationship partners who are instrumental for achievement differ in some way from partners who are instrumental for other goals. We conducted a follow up study to examine this possibility. In this study, 90 participants nominated instrumental others for achievement, health, religious, financial, and leisure goals and then provided information about the relationship type of each of these others (romantic partner, friend, family member, classmate/acquaintance/other), as well as closeness to each of these others. Chi-square tests showed that the breakdown of relationship types did not differ by goal. By far, the most nominated type of partner for academic achievement (and all other goals) was romantic relationship partner (~40%), followed by family members (~30%), then close friends (~15%), and acquaintances/classmates/others (~15%). A repeated-measures ANOVA showed that instrumental others for these different goals did not differ in closeness ($F < 1$, *ns*). Thus, it seems that achievement-instrumental others are typical instrumental others. In addition, to ensure that our effects are not unique to relationship partners who are instrumental for academic achievement, we moved to a different goal domain in Experiment 4.

Experiment 4: Goal Focus or Goal Balancing

In Experiment 4, we test whether in a multiple goal environment, pulling away from instrumental others following goal progress occurs only when goal pursuers plan to balance among their multiple goals and not when they plan to focus on (or highlight) a single goal. In this study, we manipulate whether participants are advised that successful pursuit of their goal necessitates strong focus on the goal at all times—and measure the effects of perceived progress on preference for instrumental others. We predict that progress should reduce preference for instrumental others when participants wish to balance among their goals, but that progress should, if anything, increase preference for instrumental others when participants wish to focus on the goal at hand. These effects would reflect the impact of progress on the goal's motivational priority: When people focus on one goal, progress does not reduce the goal's motivational priority as it does when people balance multiple goals.

In this study, we moved to a different goal domain: Instead of academic achievement among college students, we study health goals among the general population. In addition, Experiment 4 has a different dependent variable. To ensure that the effects hold for other kinds of relationship outcomes beyond closeness, we measure participants' ratings of the importance of their relationships. Finally, to ensure that the goal focus (vs. balance) instruction does not also affect participants' ratings of the importance of the goal, we also measure participants' self-reported goal importance.

Method

Participants. Sixty-nine American women (age $M = 33.55$ years; $SD = 10.03$), sampled from members of an online data collection service completed this study and received U.S.\$7 as compensation for their time. Only women were invited to participate because of the likelihood that sex differences would exist in the importance of health and fitness goals (e.g., Fishbach, Friedman, & Kruglanski, 2003).

Materials and procedure. This study had a 2 (progress framing: low vs. high) × 2 (advice: balance vs. focus) between-subjects design.

Participants read that the study examined the pursuit of health and fitness goals. Participants began by typing in a "health goal that [they] are currently pursuing." The most commonly listed goal was weight loss, mentioned by over half of the sample. Other common goals involved taking vitamins regularly, eating organic and fresh food more often, and eating less junk food. Participants then nominated a "spouse/romantic partner, friend, or family member" that made it easier for them to pursue that goal successfully and one who had no effect on their pursuit of that goal.

Next, participants read a short statement about research on health and fitness goals. The statement contained the manipulation of goal advice: In the goal focus condition, the statement concluded with a sentence that advised, "Research has shown that to succeed with health goals, it is important to keep them in mind at all times. Researchers have noted, 'People who want to improve their health must maintain their focus on these goals.'" In the low goal focus condition, the statement concluded with a sentence that advised, "Research has shown that to succeed with health goals, it is important not to obsess about them all the time. Researchers

have noted, 'People who want to improve their health must balance their focus on health with other goals.'"

Participants then completed either a low- or high-progress manipulation for their health goal. Specifically, participants were asked to compare the performance they had made on their health goal with the progress made by the average American on his or her health goals, whom we described as either doing well or poorly with his or her health goals (see also Fishbach et al., 2006). Participants read the item, "The average American is doing very well [is really struggling] with his/her health goals these days. When you compare your performance on your health goal to the average American's performance, how do you feel you are doing?" and responded on a 1–7 scale from "*much worse*" to "*much better.*" We assumed that participants would feel relatively better about their progress when they compared themselves with others who were struggling versus those who were doing well.

Next, participants evaluated the importance of relationships with their health-instrumental and noninstrumental others using a one-item importance measure: "Please rate the importance of your relationship with this person." (Ratings were made on a 4-point scale, on which 1 = *not at all* and 4 = *extremely*.) Finally, participants completed a four-item measure of the importance or value of their health goal (i.e., "This goal is very important to me"; "I am very committed to this goal"; "I value this goal highly; "I care about my progress on this goal", using 5-point scales, on which 1 = *completely false* and 5 = *completely true*).

Results and Discussion

First, to ensure that our advice manipulation did not affect goal importance, we tested the effect of the manipulation on participants' mean health importance ratings. We averaged the four items on the health goal measure ($\alpha = .75$). The goal focus condition did not report higher goal importance ($M = 3.95, SD = 0.69$) than did the goal balance condition ($M = 3.90, SD = 0.71$), $t(65) = -0.25$, $p = .80$.

As a manipulation check, we tested the effect of the progress manipulation on self-reported perceptions of progress. Participants in the high-progress condition (comparison with struggling average American) reported they were making better progress ($M = 4.94, SD = 1.19$) than did participants in the low progress condition (comparison with successful average American; $M = 4.11$, $SD = 1.56$), $F(1, 67) = 6.02, p = .02$.

For our primary analyses, as in Experiment 3, for ease of presentation (given the additional independent variable in this experiment), we constructed a difference score to reflect the preference for instrumental others over noninstrumental others.[5] In this case, positive numbers reflect that health-instrumental others are rated as more important than are noninstrumental others.

We performed a between-subjects ANOVA with progress framing condition (low vs. high) and goal advice condition (balance vs. focus) as between-subjects factors on the importance difference score. No main effects of progress or advice emerged ($Fs < 1, ns$). As predicted, and as illustrated in Figure 4, the ANOVA yielded a two-way interaction, $F(1, 65) = 7.45, p = .01$. In the balance goal condition, the progress manipulation marginally affected importance ratings, $F(1, 65) = 3.45, p = .07$, such that participants' preference for instrumental others was greater in the low-progress condition ($M = 1.05; SD = 1.00$) than in the high-progress
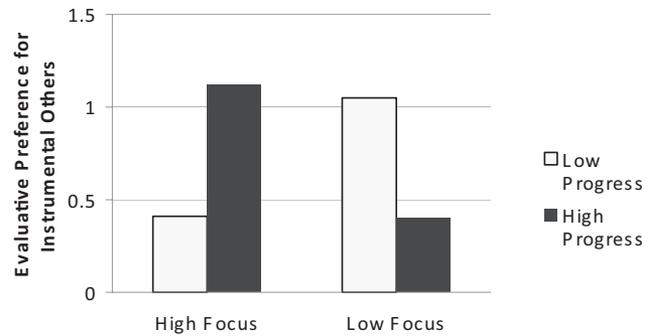

Figure 4. Experiment 4: Mean evaluative preference for instrumental others (i.e., difference score subtracting importance of noninstrumental other from importance of instrumental other) as a function of progress condition (low vs. high) and goal focus (low vs. high).

condition ($M = 0.40; SD = 0.99$). In the goal focus condition, the progress manipulation also marginally affected importance ratings, $F(1, 65) = 3.60, p = .06$; however, the pattern of data was reversed: Participants' preference for instrumental others was greater in the high-progress condition ($M = 1.12; SD = 1.27$) than in the low-progress condition ($M = 0.41; SD = 0.80$).

When participants were advised to balance goals, high perceived progress on their health goal erased the effect of instrumentality on reported relationship importance, as it has done in previous studies for achievement goals. When participants were advised to focus on the health goal, however, their preference for health-instrumental others was maintained in the high-progress condition. Indeed, in this condition, high (vs. low) progress actually increased participants' preference for health-instrumental others.

These findings provide additional support for our hypothesis that progress decreases the motivational priority of a goal and hence, the preference for goal-instrumental others, only when it serves the self-regulatory function of encouraging re-engagement in another, nonprogressed goal. When goal pursuers are attending narrowly to the pursuit of one goal, trying to maintain focus on its advancement and crowd out distractions, they do not respond to progress by decreasing the priority of the goal and moving away from instrumental others.

Although Experiments 1–4 suggest that perceived progress can decrease the motivational priority of an accessible goal under some

---

[5] Repeated measures analyses show a consistent pattern of results. In the goal balance condition, participants who perceived they had made low progress reported greater relationship importance with instrumental others ($M = 3.60; SD = 0.75$) than with noninstrumental others ($M = 2.55; SD = 1.00$), $F(1, 19) = 22.11, p < .001$, whereas participants who perceived they had made high progress reported similar levels of relationship importance with instrumental ($M = 3.73; SD = 0.59$) and noninstrumental ($M = 3.33; SD = 0.90$) others, $F(1, 14) = 2.47, p = .15$. In the goal focus condition, participants who perceived they had made low progress reported greater relationship importance with instrumental others ($M = 3.88; SD = 0.33$) than noninstrumental others ($M = 3.47; SD = 0.88$), $F(1, 16) = 4.56, p < .05$; participants who perceived they had made high progress showed the same pattern, reporting greater relationship importance with instrumental others ($M = 3.41; SD = 0.62$) than with noninstrumental others ($M = 2.29; SD = 1.16$), $F(1, 16) = 13.19, p < .01$.

conditions, the experiments do not provide evidence as to why this would occur. Reducing the motivational priority of a goal upon making progress could be quite counterproductive if it leads to complete disengagement or procrastination, but it could be productive if it leads to the prioritization of another important goal. We hypothesize that perceived goal progress may cause people to switch from a current goal to another goal—one on which progress has not been made. Such a tendency may allow the goal pursuer to maximize success on the greatest number of important goals. To test this idea, in the final experiment we compare participants' closeness to others who are either instrumental to their focal goal or instrumental to their background goal, to which we predict that participants will attend if focal goal progress is sufficient.

Experiment 5: Shifting Closeness

In Experiment 5, we tested the hypothesis that progress toward a focal achievement goal can function as a cue to increase the priority of alternative goals, thus increasing perceived closeness to significant others who are instrumental for the alternative goal. To test this hypothesis, we manipulate perceptions of progress and measure approach and avoidance of significant others who are instrumental for alternative goals versus those instrumental for the achievement goals. Recall that in previous experiments we compared responses to instrumental versus noninstrumental others. In contrast, in this experiment, we compared participants' responses to significant others who were instrumental for academic achievement but noninstrumental for an alternate important goal and those who were instrumental for an alternate important goal but noninstrumental for academic achievement. This method allows us to test our hypothesis that after making progress, individuals draw closer to others who are instrumental for a background goal—one that has not progressed as well as the focal goal.

In this experiment, we also test whether the motivational priority of a goal can influence responses to others on a nonconscious level. For that purpose, we introduced a new dependent variable that is not susceptible to conscious guidance: an implicit measure of approach and avoidance behavioral tendencies. Behavioral approach tendencies are tightly linked to feelings of closeness, with people literally drawing closer to significant others to whom they feel close (Fitzsimons & Shah, 2008). Thus, when an achievement goal is active and participants receive no progress feedback, we predict that participants will approach others who are instrumental for achievement goals more quickly than those who are instrumental for alternative important goals and avoid achievement-instrumental others more slowly than alternative-instrumental others. However, after perceiving that they have made progress on their academic achievement goals, we predict that participants will approach alternative-instrumental others more quickly than achievement-instrumental others, while distancing themselves from achievement-instrumental others.

Method

Participants. Thirty-four undergraduate students (19 women, 15 men) participated in the study. Gender did not produce a main effect or any interactions ($ps > .4$) and was thus dropped from further analysis.

Materials and procedure. This study had a 2 (other type: achievement-instrumental vs. alternative-instrumental) $\times$ 2 (goal progress: low vs. high) mixed-subjects design, with two dependent variables: approach and avoidance response times.

Participants completed the study in an individual computer booth. They began by describing their important goals in open-ended form. First, they were asked to write about their academic achievement goals; next, they were asked to list and explain their most important personal goal other than academic achievement. The goals reported varied from general health concerns (e.g., "to lose weight") to idiosyncratic personal goals (e.g., "to make the A division softball team"). We then asked participants to nominate others who were instrumental for their achievement goal but not for their alternative goal, and vice versa. Thus, each participant nominated two others—one who was achievement-instrumental but not alternative-instrumental (e.g., a study partner who is not supportive of athletics) and one who was alternative-instrumental but not achievement-instrumental (e.g., a helpful softball teammate who is not supportive of academic studies). They were also asked to provide names of significant others who were instrumental for a number of other goals, as distracters.

Participants then completed approximately 10 min of filler tasks, before completing the same progress manipulation as in Experiment 1, designed to lead participants to feel they had made high or low progress on their academic achievement goal. Next, participants completed the main dependent measure—a task that measured approach and avoidance of others. In this task (taken from Fitzsimons & Shah, 2008; see De Houwer et al., 2001), participants had to make judgments about whether names that appeared onscreen were in green or blue font. Participants were forewarned that the names would include some names of significant others as well as other names. They were told that success on the task would require that they not let the names' familiarity influence their speed in responding.

On each trial, one name appeared in the center of the screen, in either green or blue font, and at the top or bottom of the screen a red square would appear. The font color and location of the square were determined randomly by the computer at the beginning of each trial. Participants were instructed to press keys to move the square toward (approach) names in blue font and away from (avoid) names in green font (font color instructions were reversed for half of participants). Depending on the location of the square onscreen, participants had to press either the "Up" or "Down" arrow key to move the square correctly. The speed of the initial key-press for participants' responses to move the square toward names versus away from names of significant others was used as our dependent measure of approach and avoidance tendencies toward those others.

Participants completed 10 practice trials (with the word "Name" as target) before moving on to the main task, which consisted of 56 trials. The name of the participant's achievement-instrumental significant other appeared as a target eight times (four on approach trials, four on avoidance trials), as did the name of the participant's alternative-instrumental other. Four other significant other names taken from the list provided by participants each appeared as targets six times (three on approach trials, three on avoidance trials), and four other first names, chosen because of their familiarity but lack of frequency in people aged 18–21 years, each appeared as targets four times (two on approach, two on avoidance trials). These names were: Irene, Toby, Beatrice, and Elliot. Progress condition did not significantly influence approach or

avoidance speed toward any of the other significant others or additional names (all $Fs < 1$, *NS*).

Upon completion of the task, participants completed a computerized funnel debriefing task (Bargh & Chartrand, 2000), which probed for awareness of the purpose of the task and the hypotheses and any suspicions or problems with the task. (No participants reported any awareness of the purpose or hypotheses; participants generally reported the hypothesis that we were interested in whether they could respond equally quickly to known and unknown names, which was suggested by the cover story. One participant expressed suspicion that he or she was being videotaped. Removing that participant from the analysis does not change the results in any way.) After the debriefing, participants were thanked for their participation and dismissed.

Results and Discussion

We created a mean reaction time for responses to the achievement-instrumental and the alternative-instrumental target names (that is, we averaged the four approach trials for each target and the four avoidance trials for each target; approach and avoidance reaction times were directionally but nonsignificantly correlated, $r = .28$, $p = .11$). Treatment of errors and outliers was in keeping with the methods laid out in Bargh and Chartrand (2000).

We first performed a three-way repeated-measures ANOVA, with response type (approach vs. avoidance) and other type (achievement-instrumental vs. alternative-instrumental) as within-subjects factors and goal progress (low vs. high) as a between-subjects factor, on the mean reaction time data. The analysis yielded a main effect for response type, $F(1, 31) = 6.34$, $p < .02$, indicating that on average, participants responded faster on approach than avoidance trials, but yielded no other main effects.

As predicted, the three-way interaction of response type, other type, and goal progress was significant, $F(1, 31) = 14.69$, $p = .001$. To test our hypotheses, we next broke this analysis down into two-way interactions of progress and other type, for each response type (approach and avoidance).

First, an analysis of approach response times yielded the predicted two-way interaction, $F(1, 32) = 8.95$, $p < .01$. No main effects emerged. As illustrated in Figure 5, in the low-progress condition, participants approached achievement-instrumental targets faster ($M = 661.61$ ms; $SD = 182.64$ ms) than alternative-instrumental targets ($M = 803.11$ ms; $SD = 173.93$ ms), $F(1, 32) = 5.36$, $p = .03$. In the high-progress condition, the pattern
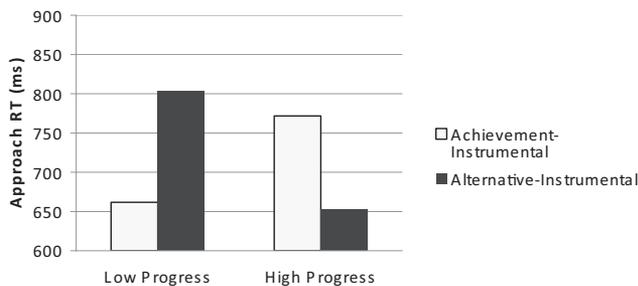

Figure 5. Experiment 5: Mean reaction time (RT) to approach other as a function of other type (achievement instrumental vs. alternative instrumental) and progress (low vs. high).

was reversed: Participants approached alternative-instrumental targets marginally faster ($M = 652.40$ ms; $SD = 166.71$) than achievement-instrumental targets ($M = 771.67$ ms; $SD = 201.44$ ms), $F(1, 32) = 3.72$, $p = .06$.

Second, an analysis of avoidance response times yielded another predicted two-way interaction, $F(1, 31) = 10.10$, $p < .01$. No main effects emerged. As illustrated in Figure 6, in the low-progress condition, participants avoided alternative-instrumental targets marginally faster ($M = 752.04$ ms; $SD = 143.82$ ms) than they avoided achievement-instrumental targets ($M = 846.39$ ms; $SD = 153.03$ ms), $F(1, 31) = 3.77$, $p = .06$. In the high-progress condition, the pattern was reversed: Participants avoided achievement-instrumental targets ($M = 711.05$ ms; $SD = 181.47$ ms) faster than alternative-instrumental targets ($M = 845.53$ ms; $SD = 137.27$ ms), $F(1, 31) = 6.38$, $p = .02$.

As we predicted, perceived goal progress appeared to induce goal switching, which in turn influenced the significant others to whom participants felt close. Specifically, participants who temporarily felt good about their progress on an achievement goal sought to draw closer to others who were instrumental for another important goal (the "alternative" goal), approaching them more readily and avoiding them more slowly. As a result, the high-progress condition not only attenuated the effect of instrumentality on evaluation (as in Experiments 1–4) but completely reversed it. These results suggest that the progress-induced decrease in seeking closeness to instrumental others (found in prior studies) did not reflect participants' simple goal disengagement but rather reflected an active switch to other important goals.

General Discussion

When a goal's motivational priority is reduced, we hypothesize that people will no longer prefer others who are instrumental for that goal. Five experiments supported that hypothesis, demonstrating that perceived goal progress leads individuals to rely less on goal instrumentality information when evaluating their significant others. When participants perceived they had made progress on a goal, they no longer preferred others who promoted goal progress (vs. those who did not promote progress). Instead, they looked to their social relationships for their instrumentality for other important goals that have not been progressing as well, drawing more closely to others who can help with those other, less progressed, goals.

To summarize, Experiment 1 documented the basic effect, demonstrating that when participants perceived they had made good progress on their academic achievement goal, they ceased to prefer (i.e., feel closer to) others who were helpful for achievement over those who were not helpful, whereas when participants perceived they had made poor progress, they showed a strong preference for (i.e., felt closer to) helpful (vs. unhelpful) others. In Experiments 2–4, we then explored variables that moderate the negative impact of progress on preference for instrumental others. This effect occurred when goal pursuers construed their actions as a signal for progress or partial goal attainment rather than enhanced commitment to the goal (Experiment 2). In addition, this effect was more likely under conditions that encouraged goal pursuers to balance multiple goals: Participants showed a lower preference for achievement-instrumental others after a progress manipulation when they focused on achievement along with other common
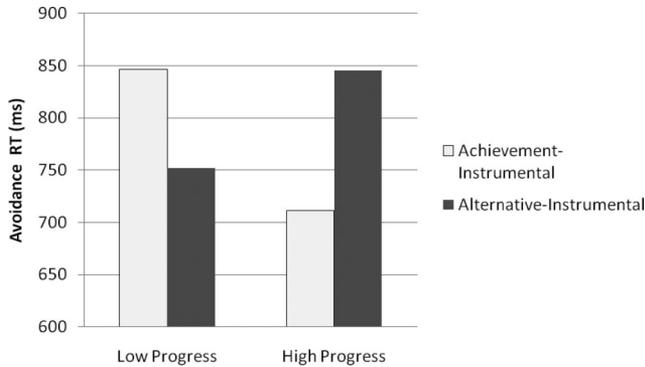
Figure 6. Experiment 5: Mean reaction time (RT) to avoid other as a function of other-type (achievement-instrumental vs. alternative-instrumental) and progress (low vs. high).

goals (e.g., social and community goals), versus when they focused on achievement alone (Experiment 3), and when they believed that not obsessing about their health goal was crucial to success, versus when they believed that maintaining focus on the health goal was crucial to success (Experiment 4).

We suggest that responding to progress in this fashion is functional, in that it serves to maximize overall self-regulatory success. In particular, perceived progress allows people to reprioritize their goals—decreasing the priority of the progressed goal and increasing the priority of less progressed goals. In support of this idea, Experiment 5 showed that participants who perceived they had made good progress on an academic achievement goal subsequently felt enhanced closeness to others who were instrumental for another important goal, compared with those who were instrumental for achievement. Those who perceived they were making poor progress, in contrast, continued to feel closer to others who were instrumental for achievement than to those who were instrumental for another important goal.

Contributions and Implications

These findings serve two primary aims. They advance basic self-regulation research by testing novel hypotheses about the conditions under which goal progress will reduce a goal's motivational priority. In addition, they contribute to research on interpersonal relationships, by examining how making progress on personal goals impacts feelings of closeness to relationship partners. We now discuss the contributions and implications of this article for each of those research areas before turning to unanswered questions raised by the current research.

Progress and self-regulation. The current article contributes to the growing understanding of the role of goal progress in determining levels of motivation. Prior research has described two different effects of goal progress on motivation and effort: On the one hand, progress has been thought to lead to increased motivation. For example, Förster and colleagues (1998) found that as a promotion goal grew closer to attainment, approach motivation increased, and as a prevention goal grew closer to attainment, avoidance motivation increased. On the other hand, progress has been thought to lead to decreased motivation, as in Carver and

Scheier's (1990) theorizing about a progress-induced coasting effect.

Consistent with recent research (Fishbach & Dhar, 2005; Fishbach et al., 2006; Koo & Fishbach, 2008), we argue that progress can both increase and decrease a person's motivation to pursue a given goal, depending on the signal conveyed by goal progress and on features of the goal context. In particular, our results indicate that progress reduces a goal's motivational priority (as reflected in a decreased preference for goal-instrumental others) when it signals a sufficient level of attainment but not when it signals an increase in the commitment to the goal. In addition, progress reduces the goal's motivational priority when people aim to balance among multiple goals. When people are focused on one goal instead (i.e., when they highlight this goal's pursuit, Fishbach et al., 2006), progress is less likely to have this effect. Interpreting previous findings in light of our model, we suggest that goal gradient effects will mainly occur when individuals (or animals) pursue a goal that they can complete without need for interruption by other goals. Progress-induced coasting effects, we suspect, will primarily occur when individuals are aware of multiple goals, as they would be, for example, when pursuing an effortful self-control goal that conflicts with an immediate attractive temptation (e.g., diet vs. indulge).

Thus, the current set of studies suggests that progress will reduce motivation when it is functional, from a self-regulatory perspective, to do so—that is, when reducing motivation allows the goal pursuer to prioritize other important goals that are progressing less well. Given that everyday goal pursuit tends to require balancing among multiple important goals to maximize overall success (Emmons & King, 1988; Higgins, 1989; Kruglanski et al., 2002; Louro, Pieters, & Zeelenberg, 2007; Kumashiro et al., 2008), we expect that in everyday situations, progress will commonly have the effect of reducing motivation toward the goal at hand. However, it will not do so if there is no functional benefit—that is, when doing so will not lead to prioritizing other goals, as when the goal at hand is the only pursuable goal or the only important goal. In such a situation, maintaining or increasing motivation will produce greater overall success. We believe that these findings help make sense of an intriguing discrepancy between two demonstrated effects in the literature and, most important, help increase our understanding of the dynamic nature of goals and self-regulation.

Self-regulation and social relationships. In the current set of experiments, we investigated hypotheses about basic self-regulatory processes within a particularly social context—the dependent measures in all experiments were feelings about other people. Furthermore, these others were not fictional or hypothetical social targets, created for the purpose of the experiment, or strangers whom participants just met within the laboratory setting. Our experiments measured feelings toward actual significant others—friends, family, romantic partners—from preexisting and ongoing real-world relationships. We believe that this approach has a great deal of value. People do not pursue goals in sterile nonsocial worlds. Instead, they pursue even the most nonsocial of goals within the social world in which they are immersed. Furthermore, there is incremental value to self-regulation research that measures social rather than nonsocial outcomes: The quality of interpersonal relationships has a strong impact on both psychological and physical health (e.g., Cohen, 1988, 2004; Uchino, 2004), and as such,

understanding factors that influence these relationships is a valuable end in and of itself.

Although very little experimental work has been done to study interpersonal relationships from a self-regulatory perspective, we agree with a growing number of scholars who have noted the importance of an integration of these two research domains (Andersen, Reznik, & Chen, 1997; Finkel & Campbell, 2001; Finkel et al., 2006; Finkel & Fitzsimons, in press; Vohs & Ciarocco, 2004). Very little is currently known about how factors exogenous to interpersonal relationships shape qualities of those relationships. By investigating the role of personal goal pursuits in determining relationship closeness, the current work contributes to the understanding of how noninterpersonal goals can have interpersonal consequences. In this way, our findings contribute empirical support to a core notion of interdependence theory, which states that people's emotional responses to their relationship partners will depend on the extent to which each facilitates versus obstructs each other's goals (Berscheid, 1983, 1991; Berscheid & Ammazzalorso, 2001; Fehr & Harasymchuk, 2005; Kelley, 1979).

Specifically, these findings further our understanding of the role of personal goals in interpersonal closeness. Building on the demonstration of past work that goals lead to preferences for others who are instrumental to active goal pursuits (Fitzsimons & Shah, 2008), in the current work we examine what happens as goals fluctuate in motivational priority—that is, as goals change across time. We believe these new findings have implications for understanding relationship closeness: Given that most close interpersonal relationships endure across time, it is likely that both partners' personal goals will progress during the span of the relationship. Thus, learning about how progress moderates the effect of goals on relationship outcomes is important in understanding how the effects of personal goals will play out in real relationship contexts.

Unanswered Questions and Future Directions

We have quite purposefully examined our hypotheses about basic self-regulatory processes using interpersonal outcomes as our dependent measures. However, this approach cannot address the extent to which the effects of progress are unique to interpersonal outcomes. Would progress elicit reductions in preference for instrumental nonsocial targets (e.g., textbooks for academic goals)? Although we cannot answer this question with empirical evidence, our model clearly predicts that the answer should be "yes": If progress on a given goal induces a reduction in that goal's motivational priority relative to other goals, as we have suggested, that reduction should be reflected in a decrease in engagement with all processes that serve to promote advancement of that goal. Thus, according to our model, people should be less likely to inhibit alternative goals, ignore temptations, and exaggerate the value of the end-state—that is, they should be less likely to engage in any self-regulatory processes that promote pursuit of that goal. As such, we would predict that people would feel less positively about textbooks (vs. magazines) when they make progress on an academic achievement goal—or, that is, they should do so as long as they are balancing this goal with other active goals. Indeed, prior research has shown conceptually consistent results by examining the effects of goal completion on evaluations of instrumental objects (e.g., Brendl, Markman, & Messner, 2003; Ferguson &

Bargh, 2004; Ferguson, 2008). For example, individuals who have recently satisfied an active goal show relatively less positive automatic evaluations of goal-relevant objects than those still pursuing the goal (Ferguson & Bargh, 2004). If these results emerged from the lowered motivational priority of the completed goal then it is likely that progress or partial goal attainment would elicit the same effects on nonsocial targets as it did on social targets in the current research.

This is not to say that progress will always impact social and nonsocial targets in the same fashion nor to say that when studying self-regulation, all means to goals (e.g., textbooks and study partners) produce the same effects. In many cases, we would expect a different pattern of results for social targets versus nonsocial targets, fundamentally because people only have relationships with other people. This is a crucial distinction: Relationship partners each have their own personal goals, as well as interpersonal goals with each other (Baldwin, 1992), and are interdependent with each other for the accomplishment of each partner's goals (Drigotas, Rusbult, Wieselquist, & Whitton, 1999). Thus, there would likely be many cases in which relationship partners would not function like ordinary means to goal progress. For example, people may feel the need to reciprocate help provided by their partners, may wish to reward their partners to encourage future help, may worry about rejection, or may find their partner's help to be controlling. Any of these variables would moderate the effects studied here. Indeed, if people are motivated to maintain positive relationships, they may actually choose to prioritize goals for which important relationship partners can provide help, as a mechanism of promoting closeness.

Similarly, the current findings are mute with respect to the role of important relationship variables, such as commitment and satisfaction, as moderators of the effects presented here. At first consideration, it may seem that these effects would be less likely to occur among highly close relationships and more likely to occur among casual relationships, such as those among classmates or coworkers. However, in our studies we have found this pattern of results within the closest and most intimate of relationships, such as those with romantic partners and family members. Indeed, we believe that close relationship contexts are perhaps the ripest for self-regulatory influence (Drigotas et al., 1999; Rusbult, Finkel, & Kumashiro, in press). Because of the interdependence inherent to close relationships, these partners have more frequent opportunities to affect each other's goal pursuits; as such, the associations between close others and personal goal pursuits may be stronger.

One interesting dimension ignored in the current research is the relationship between the focal goals and the alternative goals themselves: Goals differ in the extent to which they are complementary versus competing, and progress on one goal may have different implications for the priority of another depending on this variable. For example, if progress on one goal is seen as substitutable for progress on another, as it may be with complementary goals (e.g., cooking and ordering takeout), then it may similarly reduce the priority of that other goal (and reduce a preference for others instrumental for that goal).

Finally, we have yet to study features of goals that moderate the focus on a single goal (vs. multiple goals) and to study whether progress would then reduce goal priority. For example, it is likely that progress on ongoing goals (e.g., "to achieve academically") will reduce motivational priority more than progress of goals with

a clearly specified end state (e.g., "to get an A on my midterm") because ongoing goals are rarely ever completed and removed. Similarly, it is possible that progress on goals with a distant end state reduces their priority more than progress on proximal goals because distant goals will take longer to accomplish. The generality of the goal and the clarity of its end state may play a role in the effects of progress.

Conclusions

Progress appears to act as a functional cue that leads individuals to reprioritize their goals, shifting motivation toward other goals that are less successfully progressed. It is important to note that these findings suggest the value of examining the dynamic qualities of self-regulation: Goals are not simply active or inactive. Rather, they shift across time in a dynamic fashion: Motivation ebbs and flows, opportunities are present or absent, and other goals compete for attention or stay in the background. The current research contributes to recent efforts to understand these principles of self-regulation (e.g., Fishbach et al., 2006).

Progress also appears to shape how individuals feel about the others in their lives who help or hinder goal pursuit. In this sphere as well, the findings point to the value of investigating the dynamic qualities of goals and motivation and, in particular, to the interaction of intrapersonal and interpersonal processes in self-regulation. Just as goals change across time, interpersonal relationships are not fixed entities but are responsive to shifting situations, both at the relational level and the personal level.

References

Amir, O., & Ariely, D. (2008). Resting on laurels: The effects of discrete progress markers as subgoals on task performance and preferences. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 34,* 1158–71.

Andersen, S. M., Reznik, I., & Chen, S. (1997). The self in relation to others: Cognitive and emotional underpinnings. In J. G. Snodgrass & R. L. Thompson (Eds.), *The self across psychology: Self-recognition, self-awareness, and the self-concept.* New York, NY: Academy of Science.

Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of Other in the Self Scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology, 63,* 596–612.

Aron, A., Aron, E. N., Tudor, M., & Nelson, G. (1991). Close relationships as including other in the self. *Journal of Personality and Social Psychology, 60,* 241–253.

Atkinson, J. W. (1964). *An introduction to motivation.* Princeton, NJ: Van Nostrand.

Baldwin, M. W. (1992). Relational schemas and the processing of social information. *Psychological Bulletin, 112,* 461–484.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice-Hall.

Bargh, J. A., & Chartrand, T. L. (2000). The mind in the middle: A practical guide to priming and automaticity research. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 253–285). New York, NY: Cambridge University Press.

Bem, D. J. (1972). Self-perception theory. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 6, pp. 1–62). New York, NY: Academic Press.

Berscheid, E. (1991). The emotion-in-relationships model: Reflections and update. In W. Kessen, A. Ortony, & F. I. M. Craik (Eds.), *Memories,*

thoughts, and emotions: Essays in honor of George Mandler (pp. 323–335). Hillsdale, NJ: Erlbaum.

Berscheid, E., & Ammazzalorso, H. (2001). *Emotional experience in close relationships.* In M. Hewstone & M. Brewer (Eds.), *Blackwell handbook of social psychology: Vol. 2. Interpersonal processes* (pp. 308–330). Oxford, England: Blackwell.

Berscheid, E., Snyder, M., & Omoto, A. M. (1989). The Relationship Closeness Inventory: Assessing the closeness of interpersonal relationships. *Journal of Personality and Social Psychology, 57,* 792–807.

Berscheid, E. (1983). Emotion. In H. Kelley, E. Berscheid, A. Christensen, J. Harvey, T. Huston, G. Levinger, E. McClintock, L. A. Peplau, & I. D. Peterson (Eds.), *Close relationships* (pp. 110–168). New York, NY: Freeman.

Brendl, C. M., Markman, A. B., & Messner, C. (2003). Devaluation of goal-unrelated choice options. *Journal of Consumer Research, 29,* 463–473.

Brown, J. S. (1948). Gradients of approach and avoidance responses and their relation to motivation. *Journal of Comparative and Physiological Psychology, 41,* 450–465.

Carver, C. S. (2003). Pleasure as a sign you can attend to something else: Placing positive feelings within a general model of affect. *Cognition & Emotion, 17,* 241–261.

Carver, C. S., & Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control-process view. *Psychological Review, 97,* 19–35.

Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior.* New York, NY: Cambridge University Press.

Cohen, S. (1988). Psychosocial models of social support in the etiology of physical disease. *Health Psychology, 7,* 269–297.

Cohen, S. (2004). Social relationships and health. *American Psychologist Special Issue: Awards Issue 2004, 59,* 676–684.

De Houwer, J., Crombez, G., Baeyens, F., & Hermans, D. (2001). On the generality of the affective Simon effect. *Cognition & Emotion, 15,* 189–206.

Drigotas, S. M., Rusbult, C. E., Wieselquist, J., & Whitton, S. (1999). Close partner as sculptor of the ideal self: Behavioral affirmation and the Michelangelo phenomenon. *Journal of Personality and Social Psychology, 77,* 293–323.

Emmons, R. A., & King, L. A. (1988). Conflict among personal strivings: Immediate and long-term implications for psychological and physical well-being. *Journal of Personality and Social Psychology, 54,* 1040–1048.

Finkel, E. J., & Fitzsimons, G. M. (in press). Effects of self-regulation on interpersonal relationships. In K. D. Vohs & R. F. Baumeister (Eds.), *Handbook of self-regulation* (2nd ed.). New York, NY: Guilford Press.

Förster, J., Grant, H., Idson, L. C., & Higgins, E. T. (2001). Success/failure feedback, expectancies, and approach/avoidance motivation: How regulatory focus moderates classic relations. *Journal of Experimental Social Psychology, 37,* 253–260.

Förster, J., Higgins, E. T., & Idson, L. C. (1998). Approach and avoidance strength during goal attainment: Regulatory focus and the "goal looms larger" effect. *Journal of Personality and Social Psychology, 75,* 1115–1131.

Förster, J., Liberman, N., & Higgins, E. T. (2005). Accessibility from active and fulfilled goals. *Journal of Experimental Social Psychology, 41,* 220–239.

Feather, N. T. (1990). Bridging the gap between values and actions: Recent applications of the expectancy-value model. In E. Higgins & R. M. Sorrentino (Eds.), *Handbook of motivation and cognition: Foundations of social behavior* (Vol. 2, pp. 151–192). New York, NY: Guilford Press.

Fehr, B., & Harasymchuk, C. (2005). The experience of emotion in close relationships: Toward an integration of the emotion-in-relationships and interpersonal script models. *Personal Relationships, 12,* 181–196.

Ferguson, M. J. (2008). On becoming ready to pursue a goal you don't know you have: Effects of nonconscious goals on evaluative readiness. *Journal of Personality and Social Psychology, 25,* 557–571.

Ferguson, M. J., & Bargh, J. A. (2004). Liking is for doing: The effects of goal pursuit on automatic evaluation. *Journal of Personality and Social Psychology, 87,* 557–572.

Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7,* 117–140.

Finkel, E. J., & Campbell, W. K. (2001). Self-control and accommodation in close relationships: An interdependence analysis. *Journal of Personality and Social Psychology, 81,* 263–277.

Finkel, E. J., Campbell, W. K., Brunell, A. B., Dalton, A. N., Chartrand, T. L., & Scarbeck, S. J. (2006). High-maintenance interaction: Inefficient social coordination impairs self-regulation. *Journal of Personality and Social Psychology, 91,* 456–475.

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.

Fishbach, A., Dhar, R., & Zhang, Y. (2006). Subgoals as substitutes or complements: The role of goal accessibility. *Journal of Personality and Social Psychology, 91,* 232–242.

Fishbach, A., Friedman, R. S., & Kruglanski, A. W. (2003). Leading us not unto temptation: Momentary allurements elicit overriding goal activation. *Journal of Personality and Social Psychology, 84,* 296–309.

Fishbach, A., & Zhang, Y. (2008). Together or apart: When goals and temptations complement versus compete. *Journal of Personality and Social Psychology, 94,* 547–559.

Fitzsimons, G. M., & Finkel, E. J. (in press). Interpersonal influences on self-regulation. *Current Directions in Psychological Science.*

Fitzsimons, G. M., & Shah, J. (2008). How goal instrumentality shapes relationship evaluations. *Journal of Personality and Social Psychology, 95,* 319–337.

Higgins, E. (1989). Self-discrepancy theory: What patterns of self-beliefs cause people to suffer? In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 22, pp. 93–136). San Diego, CA: Academic Press.

Hull, C. L. (1934). The rat's speed-of-locomotion gradient in the approach to food. *Journal of Comparative Psychology, 17,* 393–422.

Impett, E., Gable, S. L., & Peplau, L. A. (2005). Giving up and giving in: The costs and benefits of daily sacrifice in intimate relationships. *Journal of Personality and Social Psychology, 89,* 327–344.

Kelley, H. H. (1979). *Personal relationships: Their structure and processes.* Hillsdale, NJ: Erlbaum.

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.

Kruglanski, A. W., Shah, J. Y., Fishbach, A., Friedman, R., Chun, W. Y., & Sleeth-Keppler, D. (2002). A theory of goal systems. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 34, pp. 331–378), San Diego, CA: Academic Press.

Kumashiro, M., Rusbult, C. E., & Finkel, E. J. (2008). Navigating personal and relational concerns: The quest for equilibrium. *Journal of Personality and Social Psychology, 95,* 94–110.

Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting & task performance.* Upper Saddle River, NJ: Prentice Hall.

Louro, M. J. S., Pieters, R., & Zeelenberg, M. (2007). Dynamics of multiple goal pursuit. *Journal of Personality and Social Psychology, 93,* 174–193.

Murray, S. L., Bellavia, G., Rose, P., & Griffin, D. (2003). Once hurt, twice hurtful: How perceived regard regulates daily marital interaction. *Journal of Personality and Social Psychology, 84,* 126–147.

Reis, H. T., & Shaver, P. (1988). Intimacy as interpersonal process. In S. Duck (Ed.), *Handbook of personal relationships: Theory, research and interventions* (pp. 367–389). New York, NY: Wiley.

Rusbult, C. E., Finkel, E. J., & Kumashiro, M. (in press). The Michelangelo phenomenon. *Current Directions in Psychological Science.*

Uchino, B. N. (2004). *Social support and physical health: Understanding the health consequences of our relationships.* New Haven, CT: Yale University Press.

Vohs, K. D., & Ciarocco, N. J. (2004). Interpersonal functioning requires self-regulation. In R. F. Baumeister & K. D. Vohs (Eds.), *Handbook of self-regulation: Research, theory, and applications* (pp. 392–410). New York, NY: Guilford.

Vohs, K. D., & Finkel, E. J. (2006). *Self and relationships: Connecting intrapersonal processes and interpersonal relationships.* New York, NY: Guilford Press.

Wieselquist, J., Rusbult, C. E., Foster, C. A., & Agnew, C. R. (1999). Commitment, pro-relationship behavior, and trust in close relationships. *Journal of Personality and Social Psychology, 77,* 942–966.