

Relational Consequences of Personal Goal Pursuits

Laura E. VanderDrift
Syracuse University

Christopher R. Agnew
Purdue University

Individuals balance tasks necessary to fulfill personal goals and to maintain their interpersonal relationships. In the current studies, we examined the impact of personal goal pursuits on how individuals process and respond to events in their romantic relationships. In 5 experiments, we examined consequences of motivationally active personal goals for relationships. Results indicated that when individuals focused on pursuing a personal goal, they processed relationship information in an evaluatively polarized (Study 1), one-sided (Study 2) fashion. Relative to those deliberating about a personal goal, those focused on a personal goal reported less willingness to engage in some kinds of pro-relationship behaviors (Study 3) and were more likely to forego an opportunity to improve their relationship (Study 4). We attribute this pattern of findings to processing that shielded the personal goal from goal-irrelevant influence (Study 5). These findings provide a greater understanding of how pursuing a personal goal can undermine relationships.

Keywords: romantic relationships, personal goal pursuits, relationship maintenance, mindsets

Close relationships with others can be a source of great satisfaction in individuals' lives, contributing to psychological and physical well-being (Kiecolt-Glaser et al., 1987; Patrick, Knee, Canevello, & Lonsbary, 2007; Rusbult, 1980). They can help individuals realize their ideal selves (Rusbult, Finkel, & Kumashiro, 2009), expand their sense of self (Aron & Aron, 1996), and gratify numerous needs (Drigotas & Rusbult, 1992; VanderDrift & Agnew, 2012). Indeed, relationships are considered a fundamental aspect of human nature (Baumeister & Leary, 1995). Often considered the closest relationship (Berscheid, Snyder, & Omoto, 1989), romances yield myriad benefits for individuals, but partners must engage in ample relationship maintenance to ensure they persist and remain gratifying over time (Agnew & VanderDrift, in press).

Relationship maintenance broadly encompasses the processes that keep involved actors relatively interdependent on one another (Agnew & VanderDrift, in press; Gaines & Agnew, 2003). These processes include ones that arise to protect a relationship when a threat is encountered (Rusbult & Agnew, 2010) and ones that promote stability of interdependence in the absence of threat (Agnew & VanderDrift, in press). Regardless of threat, relationship maintenance processes require individuals to attend to and place the broader interests of the relationship in line with, if not at times ahead of, immediate, self-interested instincts (Kelley & Thibaut, 1978) and can influence perceptions of the relationship and partner continuously, often outside conscious awareness and control (as summarized in Holmes, 2000). Together, relationship

maintenance processes influence the attention, information processing, and behavior of involved individuals in ways that promote the level of interdependence shared between the individuals remaining constant.

In the current studies, we examined a phenomenon that we hypothesized could derail these continuously operating maintenance processes, as well as make it less likely that conscious efforts to maintain the relationship will occur: the pursuit of personal goals. Individuals are in constant pursuit of personal goals, including those that gratify self-oriented needs (e.g., physiological, autonomy needs) and promote self-oriented goals (e.g., personal goal pursuits, individual growth). Individuals place great importance on their personal goal pursuits and derive life satisfaction and a sense of self-worth from pursuit of these goals (Deci & Ryan, 2000; Emmons, 1986). Because of such motivation, much as in relationship maintenance, cognitive processes exist that facilitate individuals' successful personal goal pursuits. We hypothesized, and through a series of five experiments tested, that processes that arise to enable personal goal pursuits may cause ongoing, prioritized personal goals to derail relationship maintenance processes.

Goal Pursuits

When pursuing a goal, individuals adopt mindsets that facilitate success at each stage of the pursuit. A mindset is a general cognitive orientation with distinct features (Gollwitzer, 1990). As an individual prepares for a specific phase of the goal pursuit, a mindset emerges that has the features necessary to facilitate successful planning and pursuit of a goal (Gollwitzer, 1990). There are significant differences in the cognitive features adaptive to deciding what goal to pursue and enacting behaviors to achieve the goal, and thus there are two distinct mindsets detailed in the literature: the deliberative mindset and the implemental mindset, respectively.

Laura E. VanderDrift, Department of Psychology, Syracuse University; Christopher R. Agnew, Department of Psychological Sciences, Purdue University.

Correspondence concerning this article should be addressed to Laura E. VanderDrift, Department of Psychology, Syracuse University, 410 Huntington Hall, Syracuse, NY 12344-2340. E-mail: lvanderd@syr.edu

While deciding whether to pursue a particular goal, individuals must consider information relevant to the positivity and negativity of the expected outcome(s) of the goal, as well as information relevant to the chance of achieving the expected outcome. Thus, a mindset of general open-mindedness toward processing information (either incoming or stored) in an impartial manner is beneficial during this phase of a goal pursuit (Gollwitzer, 1990). This mindset, called a *deliberative mindset*, involves cognitive tuning toward information relevant to determining feasibility and desirability (Gollwitzer, Heckhausen, & Steller, 1990), is characterized by general open-mindedness to all information (Heckhausen & Gollwitzer, 1987), and allows for accurate and impartial processing of the information attended to by the individual (Gollwitzer & Kinney, 1989). When implementing a goal pursuit, individuals change from being open-minded and impartial to cognitively tuning toward the information relevant to how, when, and where action will be carried through (Gollwitzer et al., 1990). This mindset, called the *implemental mindset*, facilitates an individual focusing on information that promotes the goal, rather than the full body of available evidence (Heckhausen & Gollwitzer, 1987), and facilitates the individual processing all information in a one-sided fashion (i.e., without nuance or variability), in line with his or her previously held evaluations (Henderson, de Liver, & Gollwitzer, 2008).

To facilitate a personal goal, these mindsets impact other domains of the self, limiting the attention paid to accurately processing information. For instance, implemental mindsets with regard to a personal goal have been found to lead individuals to “tune out” irrelevant situational primes. Goal pursuits that have been relegated to automatic control (e.g., implementation intentions have been formed to facilitate the goal) are effectively “shielded from unwanted social influences” (p. 191; Webb, Sheeran, Gollwitzer, & Trötschel, 2012), meaning that social primes do not impact subsequent cognitions during an active goal pursuit. This is beneficial to the pursuit, as it ensures that the goal is primary and is not derailed by the social environment. Applied to relationship maintenance, however, these findings suggest that necessary automatic relationship maintenance processes may fail to arise when an individual is focused on a personal goal pursuit. In other words, given that mindsets are general cognitive orientations (Henderson et al., 2008; Taylor & Gollwitzer, 1995), the impact of adopting an implemental mindset to facilitate a particular goal could impact the way information relevant to an individual’s relationship is attended to and processed, which could have implications for his or her enacting necessary relationship maintenance.

Personal and Relational Achievement

Pursuing personal goals while maintaining a relationship has received a fair amount of empirical interest in recent years. Some evidence supports the notion that personal and relational are natural categories that individuals monitor and attempt to balance to achieve optimal well-being. The Personal–Relational Equilibrium Model (Kumashiro, Rusbult, & Finkel, 2008) uses a homeostasis metaphor to describe how, under conditions of limited time and resources, individuals balance personal and relational achievement. According to this model, individuals are motivated to maintain an optimal equilibrium between their personal and relational goals, but the ease with which individuals can achieve equilibrium

is highly variable. As a consequence of continually attempting to maximize both personal and relational goal pursuits under conditions of finite resources and time, individuals develop adaptations that tend to yield at least moderate goal achievement. When dedication to one domain comes at the expense of the other, the individual experiences disequilibrium, which is experienced as unpleasant tension. Individuals, when aware of disequilibrium, are motivated to shift their dedication of time and effort from one domain to the other (Kumashiro et al., 2008).

As summarized previously, however, while focused on a goal pursuit, individuals’ perceptions are not unbiased. The bias that exists arises to facilitate the goal pursuit but generalizes across domains related to the self (Gollwitzer, 1990), including relationship cognitions. For instance, work on relationship illusions (i.e., a cognitive maintenance mechanism in which individuals idealize their partners’ strengths and minimize their faults; Murray & Holmes, 1993) reveals that individuals hold greater positive perceptions of their partners when in an implemental mindset with regard to a personal goal than when deliberating about the goal (Gagné & Lydon, 2001). Furthermore, romantically involved individuals are more able to predict whether their relationship will be intact 6–9 months later when in a deliberative mindset than when in an implemental mindset (Gagné & Lydon, 2001). Beyond work on mindsets, other research suggests that when a personal goal has been primed, individuals perceive that they are closer to those relationship partners (romantic, familial, and friendly) that they view as instrumental (i.e., contributing) to the primed goal and less close to those who they view as noninstrumental (Fitzsimons & Shah, 2008). This is further qualified by the relative motivational priority of the goals, such that goals that are high in motivational priority draw the greatest attention, and relationship partners are perceived as close or not based on their ability to facilitate those goals specifically (Fitzsimons & Fishbach, 2010). Together, these results suggest that active goal pursuits facilitate changes in how relationships are perceived that may have consequences for the successful balance of personal and relational achievement.

Arguably, the changes in relationship cognition that arise due to personal goals could be beneficial for a relationship. Positive illusions and closeness are both associated with positive relationship outcomes (for a review, see Agnew & VanderDrift, *in press*). Work on relational goals, however, indicates that individuals’ endorsements of closeness are more predictive of their future relationship states when assessed by participants who are in a deliberative mindset with regard to a relationship goal than by those in an implemental mindset (Gagné, Lydon, & Bartz, 2003). It is important to note a control condition used in this study ensured that increased closeness as a result of the implemental mindset, rather than decreased closeness from deliberating, led to the degraded predictive validity of closeness. Thus, because of the cognitions that arise to facilitate goal pursuit, it is more likely, we argue, that such cognitions are a detriment to relationship maintenance rather than a benefit.

The Current Studies

Together, the summarized literature suggests that individuals strive for balance between their personal and relational goal achievement and that equilibrium sensitivity exists to help ensure individuals receive at least moderate goal achievement in both

domains (Kumashiro et al., 2008). Evidence suggests that individuals with partners who are instrumental for their active personal goal pursuit feel closer to their partners during the pursuit (Fitzsimons & Shah, 2008), but whether that increased closeness is a benefit for the relationship, or instead a benefit for the goal pursuit at the cost of the relationship, remains an open question. We expected the latter.

While focused on a goal pursuit, individuals' perceptions are not unbiased but instead motivated by a mindset that facilitates the goal pursuit. This mindset shields the personal goal from conflicting activities, by narrowing focus, polarizing evaluative judgments, and reducing complexity in thought. This mindset energizes and facilitates the current goal because polarized, less contradictory thoughts provide a stronger basis for action, limiting the distraction possible from other goals (Gollwitzer et al., 1990; Henderson et al., 2008). In other words, such a mindset shields the active goal from conflicting goal pursuits by creating the sense that little action is needed on other goal fronts (Heckhausen & Gollwitzer, 1987). Consequently, if the conflicting activity is relationship maintenance, then relationship maintenance might be disabled because the relationship seems either uniformly good (and thus not in need of reparative action) or uniformly bad (and thus not remediable). To test the impact of ongoing goal pursuits on relationship maintenance, we conducted a series of five experiments. The first two were designed to examine whether the information processing shifts that occur during an ongoing goal pursuit impact relationship cognitions. The literature on goal pursuits clearly suggests that a personal goal pursuit alters cognition in a predictable way, but whether goal pursuit impacts relationship cognitions is an open empirical question. Specifically, in Studies 1 and 2, we tested the following hypotheses:

Hypothesis 1: Individuals who have adopted an implemental mindset with regard to a personal goal evaluate feedback about their relationship in a more polarized fashion than individuals in deliberative mindsets.

Hypothesis 2: Individuals in implemental mindsets with regard to personal goals report relationship-relevant information in a more one-sided fashion than individuals in deliberative mindsets.

If supported, these first two hypotheses would provide evidence that, when focused on a personal goal pursuit, processing of relational information is done in a way to facilitate the goal, rather than being solely reactive to the conditions of the relationship itself. According to many theoretical approaches to relationship maintenance, but most notably interdependence theory (Kelley, 1979), the evaluation and regulation of relationships are crucial to the outcomes received in that relationship. How individuals process relationship-relevant information (e.g., how satisfied they are, how much trust to place in their partners, what to make of incoming relationship feedback) is key to predicting the sorts of behavioral maintenance they engage in and whether their relationship will remain stable (as summarized in Holmes, 2000). Put differently, behavior in relationships is not dictated by the objective properties of the situation but instead it is predicted by the situation *as interpreted by the actor* (Kelley et al., 2006). As active goal pursuits are associated with individuals holding greater positive illusions (Gagné & Lydon, 2001) and (if we assume support for

Hypotheses 1 and 2) processing information in line with their expectations and without variability, individuals who are in an implemental mindset with regard to a personal goal are engaging in relationship cognitions that are designed to keep individuals focused on the goal, rather than on maximizing their relational outcomes. As such, we expected that individuals would report lower willingness to engage in necessary behavioral relationship maintenance. Additionally, because the cognitions arise to protect the goal pursuit, this pattern should be especially strong if the necessary relationship maintenance comes at a noticeable cost to personal goals, as this is when the mindset would be expected to be most actively shielding the goal pursuit from derailment. Thus, in Study 3, we tested the following hypothesis:

Hypothesis 3: Individuals who adopt implemental mindsets with regard to personal goals report less willingness to engage in pro-relationship behavior than individuals who adopt deliberative mindsets, and this pattern is strongest when that behavior comes at a cost to the personal goal.

Finally, we examined whether personal goal pursuits indeed impact individuals' likelihood to embrace a relationship maintenance opportunity when one is presented. Specifically, we tested the following hypothesis:

Hypothesis 4: Individuals who adopt deliberative mindsets with regard to personal goals show greater interest in learning about how to improve their relationship than individuals who adopt implemental mindsets, but the two groups do not differ with regard to their interest in improving their personal goal pursuits.

Additionally, we examined the mechanism of these effects being firmly attributable to a personal goal serving to shield individuals from noticing and attending to their relationship by replicating Study 4, but instead we evoked the mindset with regard to a relational goal. If the hypothesized mechanism was supported (i.e., if it is true that participants in an implemental mindset with regard to a personal goal show less interest in their relationship to facilitate success on the personal goal), then we should see the reverse of Hypothesis 4 in Study 5.

Study 1

Study 1 was designed to examine whether individuals who have adopted implemental mindsets evaluate new information about their relationship in a more polarized fashion than do individuals in deliberative mindsets. The implemental mindset may lead individuals to process relationship feedback in line with their previously held beliefs regarding perceived relationship quality. The deliberative mindset, on the other hand, is associated with processing information in an impartial fashion, so in this mindset it is likely that participants would interpret new information regarding their relational goal fulfillment accurately. If supported, this study would provide evidence that the processing of relationship information when one is focused on a goal is such that it is promotive of the goal, rather than responsive to the conditions of the relationship. To test these notions, we evoked one of the two mindsets (see Gollwitzer & Kinney, 1989), provided participants with false feedback about their relationship that was ambiguous in valence,

and then asked them to evaluate the overall positivity of the feedback.

Method

Design and participants. Participants were 139 undergraduate students at a large, midwestern university (64 men and 75 women) who were currently involved in a romantic relationship. All participants received partial fulfillment of an introductory psychology course requirement in exchange for their participation. The average duration of their romance was 21.22 months ($SD = 17.3$), and all but four participants were involved in heterosexual partnerships (those four, who composed 2.9% of the sample, were involved in homosexual relationships). Participants' ages ranged from 18 to 28 years ($M = 19.54$, $SD = 1.6$), and the majority indicated that they were White (66.2%, with 25.2% Asian, 4.3% Black, 1.4% Hispanic, and 2.9% indicating other). This study featured one between-subject experimental factor with two levels (mindset: deliberative vs. implemental) and one measured factor (relationship satisfaction level).

Procedure. Participants attended a 60-min experimental session individually or in small groups of between two and five people. Because the verbal instructions given to participants differed between conditions, as has been done in previous research (Gagné & Lydon, 2001), we randomly assigned experimental sessions to condition, such that each participant in a particular experimental session was in the same condition.

Cover story. A research assistant explained to participants that they would take part in two unrelated experiments. After providing written consent, all participants were told that one of the two experiments in which they would participate was designed to develop a new data-reducing algorithm that could quickly analyze data for several hallmarks of personal and relationship functioning and provide feedback. To complete this experiment, they would complete a large battery of questionnaires, and while the computer was compiling their results, they would complete a brief second experiment. In this presumed second experiment, participants were told that they would reflect on their personal goals, as the study was designed to answer the question of whether intense reflection on personal issues would help people act more effectively in personal life. In actuality, this experiment was designed to administer the mindset manipulation (described in the following paragraph). After completing the mindset manipulation, participants received what they perceived to be their personalized feedback and were asked to rate that feedback's valence as the primary dependent measure of interest.

Mindset manipulation. Similar to past approaches used to manipulate mindsets (Gagné & Lydon, 2001; Gollwitzer & Kinney, 1989), participants in the deliberative mindset condition were given a piece of paper and a pen and asked to name an undecided personal problem that was important to them in the form of "Should I do X or not?" (e.g., "Should I quit smoking or not?"). Participants were asked to write down the immediate and long-term positive and negative consequences of both making the decision to pursue the goal they named and making the decision not to pursue the goal, as well as to list the expected difficulties that might arise if they pursued the personal goal.

Participants in the implemental mindset condition were also given a piece of paper and a pen and were asked to describe an

intended personal project that was important to them at the time and could be accomplished in the near future. This project was written in the form of "In the near future, I will do X" (e.g., "In the near future, I will quit smoking"). Participants were asked to write down the five most important steps involved in accomplishing the goal they named and then list where, when, and how each step could be performed.

Mindset manipulation check. Next, participants completed a manipulation check questionnaire (Gollwitzer & Kinney, 1989) that included the following items: (a) "How determined do you feel at this moment?"; (b) "Do you feel that you have committed yourself to a certain course of action?"; and (c) "Do you feel that you have committed yourself to make use of a certain occasion or opportunity to act?" Each of these items was rated on a 9-point scale ranging from 1 (*Not at all*) to 9 (*Very*). Responses were correlated ($\alpha = .86$), so we created a composite measure to use in analyses.

False feedback paradigm. Prior to the mindset manipulation, all participants were told that one of the two experiments in which they would participate was designed to develop a new data-reducing algorithm that can quickly analyze data for several hallmarks of personal and relationship functioning and provide feedback. Participants responded to a battery of over 100 face-valid items tapping various aspects of their personality and relationship (e.g., the Investment Model Scale, Rusbult, Martz, & Agnew, 1998; the Experiences in Close Relationship Inventory-Revised, Fraley, Waller, & Brennan, 2000; the Interpersonal Reactivity Index, Davis, 1983). Within this battery was the Investment Model Scale (Rusbult et al., 1998), which contains the Relationship Satisfaction subscale used as a predictor variable. This measure contains five items assessing satisfaction with the current romantic relationship (e.g., "My relationship makes me very happy") and employs a 9-point response scale ranging from 1 (*Do not agree at all*) to 9 (*Agree completely*; $\alpha = .93$). After participants completed the measures, they completed the mindset manipulation in a separate laboratory and then were brought back to the original lab to ostensibly receive their personalized feedback.

Participants were asked to read the feedback thoroughly, carefully considering each statement and examples of times when that statement was particularly true. In actuality, all participants received identical feedback that contained 20 statements written for this study. Ten of these statements pertained to the participant's relationship, with five of these statements being slightly positive (e.g., "You and your partner are more compatible than the average college couple") and five being slightly negative (e.g., "You have a harder time communicating with your partner than the average partner"). The remaining 10 statements were included as distractors and pertained to the individual's personality (half slightly positive and half slightly negative).

Dependent measure. After the participants read the feedback, it was taken away from them, and they were asked two questions assessing how positive the feedback about their relationship was on a 9-point scale from 1 (*Not at all*) to 9 (*Very much*): "How favorably did this feedback portray your romantic relationship?" and "How positive do you think this feedback was about your relationship and relational abilities?" As these items were highly correlated ($r = .61$, $p < .001$), they were averaged, and this composite measure served as the dependent variable in analyses.

Results

All analyses in all studies presented were conducted without covariates. None of the effects obtained in any study presented in this article are moderated by either participant sex or relationship duration.

Manipulation check. Prior to hypothesis testing, we first ensured that all participants wrote about personal goals during the mindset manipulation. One participant in the deliberative condition wrote about a relational goal (i.e., “Date a girl I actually like”), and therefore, we removed his data from all analyses (he is not included in the previous demographic profile). Additionally, as this study involved false feedback, as required by our institutional review board guidelines, all participants had the option to have their data discarded. Ten participants exercised this option (6.7% of the total) and are not included in analyses or the demographic profile. Next, to ensure our manipulation was successful, we examined whether participants in the deliberative and implemental conditions endorsed significantly different levels of determination and commitment toward the goal about which they wrote. As expected, participants in the deliberative condition endorsed lower commitment toward their goal ($M = 5.83$, $SD = 1.72$) than did participants in the implemental mindset ($M = 7.16$, $SD = 1.40$). An independent samples t test revealed that this difference was significant, $t(132) = 4.95$, $p < .001$.

Testing Hypothesis 1. Hypothesis 1 held that individuals who adopted an implemental mindset with regard to a personal goal would evaluate relationship feedback in a more evaluatively polarized fashion than would individuals in deliberative mindsets. By this we mean that relative to those in the deliberative mindset condition, participants in the implemental mindset conditions would view ambiguous information more positively insofar as they were already satisfied with their relationship and more negatively insofar as they were dissatisfied with their relationship. To test this notion, we used linear regression (PROC REG in SAS Version 9.2), examining whether mindset (between-subjects: deliberative vs. implemental) and relationship satisfaction (continuous measure) interacted to predict participants’ perception of the relational feedback provided. As hypothesized, this interaction term was significant, $\beta = -.508$, $t(133) = -2.02$, $p < .05$. To probe this interaction, we tested the simple slopes of satisfaction level in each condition, as described by Aiken and West (1991) and elaborated upon by Preacher, Curran, and Bauer (2006). As expected, the slope for participants in the deliberative mindset condition was not significant, $b = 0.03$, $t = 0.11$, $p > .70$, whereas the slope for participants in the implemental mindset condition was, $b = 0.38$, $t = 3.35$, $p < .01$.

Key to our hypothesis, participants with high relationship satisfaction (1 SD above the total sample mean) in the implemental mindset condition viewed the feedback significantly more positively than did participants with high satisfaction in the deliberative mindset condition, $b = 1.03$, $t = 3.17$, $p < .01$. For participants with low satisfaction (1 SD below the mean), the difference between the conditions was not significant, although the means were in the expected direction (i.e., participants viewed the information less positively in the implemental condition than in the deliberative condition), $b = -0.47$, $t = -1.22$, $p = .10$. See Figure 1 for a visual depiction of this interaction.

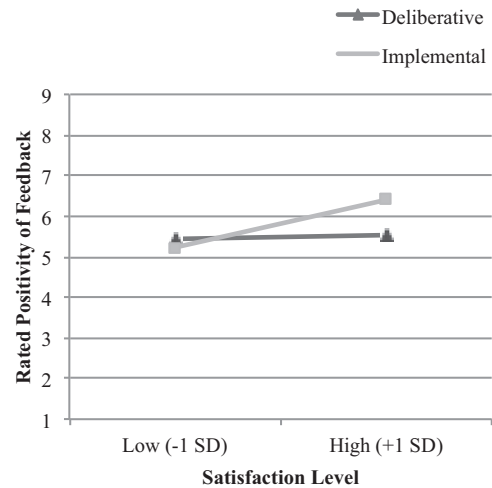


Figure 1. Study 1 results. Scale (positivity of feedback) ranges from 1 (Not at all) to 9 (Very much).

Ancillary analyses. We conducted ancillary analyses to ensure that evaluative polarization was responsible for our Study 1 findings, rather than that participants simply failed to attend to the information and provided their guesses about what the feedback said. To rule out this possibility, after participants rated the positivity of the feedback, they were given a surprise recall task in which they were asked to list as many of the feedback statements as possible. We compared the number of statements recalled in the two conditions and found there were no differences in total number of relationship feedback items recalled, $t = 1.12$, $p > .20$; number of positive relationship items recalled, $t = 0.51$, $p > .60$; or number of negative relationship items recalled, $t = 1.28$, $p > .20$. Furthermore, the interaction of satisfaction and condition did not significantly predict the number of relationship items, $t = -0.09$, $p > .90$; positive relationship items, $t = -0.17$, $p > .80$; or negative relationship items recalled, $t = 0.05$, $p > .90$. Thus, our evaluative polarization results cannot be attributed to ignoring the information in the implemental mindset condition.

Study 2

Study 2 was designed to examine a different dimension of relational cognitions during a goal pursuit. Specifically, we examined whether individuals in an implemental mindset with regard to a personal goal engage in greater one-sided assessments of relational information than do those in a deliberative mindset. The implemental mindset is associated with processing information in a one-sided fashion and therefore may lead individuals to evaluate information relevant to their relationship as highly homogeneous. The deliberative mindset, on the other hand, is associated with processing information in an impartial fashion, so in this mindset, participants are likely to notice the nuances in their relationship and may evaluate information relevant to these goals in a less homogeneous way. To test this notion, we employed the same manipulation of mindsets as used in Study 1 and then asked participants to report on their relationship state (e.g., satisfaction level, quality of alternatives). We examined the variability in

participants' reported relational state to see how homogeneous their assessments were.

Method

Design and participants. Participants were 65 undergraduate students at a large, midwestern university (43 men and 22 women) who were currently involved in a romantic relationship. All participants received partial fulfillment of an introductory psychology course requirement in exchange for their participation. The average duration of their relationship was 25.44 months ($SD = 19.5$), and all participants were involved in heterosexual partnerships. Participants' ages ranged from 18 to 24 years ($M = 19.42$, $SD = 1.5$), and the majority indicated that they were White (55.4%, with 35.4% Asian, 4.6% Black, 3.1% Hispanic, and 1.5% indicating other). This study had one between-subjects experimental factor with two levels (mindset: deliberative vs. implemental).

Procedure. Participants attended a 30-min experimental session individually or in small groups of between two and five people. Using the same mindset manipulation as described previously, we induced participants to adopt either an implemental or a deliberative mindset with regard to a personal goal and measured their commitment to that goal (as described in Study 1) as a manipulation check.

Dependent measure. After the mindset manipulation, participants completed the full Investment Model Scale (IMS; [Rusbult et al., 1998](#)), which contains four scales assessing satisfaction level (five items, $\alpha = .94$), quality of alternatives (five items, $\alpha = .78$), investment size (five items, $\alpha = .81$), and commitment level (seven items, $\alpha = .90$). All items were rated on a 9-point scale ranging from 1 (*Do not agree at all*) to 9 (*Agree completely*). The alternatives scale is scored such that higher numbers indicate lower relationship quality, whereas the other three scales are scored such that higher numbers indicate greater relationship quality. Prior to analyses, each of the alternatives items was reverse-scored to predict in the same direction as the other scales.

Results

Manipulation check. Prior to hypothesis testing, we first ensured that all participants wrote about personal goals during the mindset manipulation and then examined whether participants in the deliberative and implemental conditions endorsed significantly different levels of commitment toward the goal about which they wrote. As expected, participants in the deliberative condition endorsed lower commitment toward their goal ($M = 5.83$, $SD = 1.69$) than did participants in the implemental mindset ($M = 7.30$, $SD = 1.18$). An independent samples t test revealed that this difference was significant, $t(63) = 4.11$, $p < .001$.

Testing Hypothesis 2. Hypothesis 2 held that individuals who adopted an implemental mindset with regard to a personal goal would report relationship-relevant information in a more one-sided fashion than would individuals in deliberative mindsets. By *one-sided*, we mean that they would view all information pertinent to their relationship goals similarly and thus report less nuance or variability in their assessment of relationship state constructs (i.e., their perceptions of their levels of satisfaction, investment, commitment, and alternatives would be highly homogeneous, with little within-individual variability). To test this notion, we created

a stacked data set in which answers to each of the 22 IMS items were nested within individuals. Then, using SAS Version 9.2 PROC MIXED, we computed an intercept-only model, or null model, to produce values for intercept variance (τ , between-individual variance) and residual variance (σ^2 , within-individual variance). We then calculated the proportion of variance that is explained within-individual by dividing the residual variance by the sum of the intercept variance and residual variance. The resulting coefficient represents the proportion of the total variance explained within-individual: in the deliberative mindset condition, $\tau = 1.21$, and $\sigma^2 = 4.90$, resulting in 80.25% of the total variability in IMS responses being explained within-individual; and in the implemental mindset condition, $\tau = 3.33$, and $\sigma^2 = 2.38$, resulting in 58.29% of the total variability in IMS responses being explained within-individual. Thus, there was greater within-individual variability in the deliberative condition than in the implemental (i.e., participants in the deliberative condition were less one-sided in their assessment than were participants in the implemental condition). For comparison, we examined the ratio of between- to within-individual variability in IMS responses in a sample in a neutral, unmanipulated mindset. Recall that in Study 1, participants reported their IMS responses prior to our mindset manipulation. In this sample, $\tau = 1.15$, and $\sigma^2 = 3.44$, resulting in 75.0% of the total variability in IMS responses being explained within-individual when a mindset had not been experimentally induced. Thus, Hypothesis 2 was supported, indicating that individuals who adopted an implemental mindset with regard to a personal goal recall relationship-relevant information in a more one-sided fashion than do individuals in deliberative mindsets (who more closely mirror individuals in a neutral mindset).

To rule out the possibility that the greater homogeneity of responses seen in the implemental mindset condition was due to a ceiling effect on scores in that condition (as could be the case if extreme attitudinal polarization occurred), using a wide, unstacked data set, we computed the mean of the satisfaction, investment, commitment, and reverse-scored alternatives items and examined whether it was similar across conditions. Indeed, participants in the implemental mindset condition reported an equivalent score on this broad "relationship assessment" measure ($M = 6.76$, $SD = 1.57$) as the participants in the deliberative mindset condition ($M = 6.91$, $SD = 1.07$). An independent samples t test revealed that these two means were not significantly different, $t(63) = -0.71$, $p > .40$, suggesting that a ceiling effect was not more likely in the implemental condition than in the deliberative.

Study 3

Having found support for the notion that the mindsets adopted to facilitate the achievement of personal goals have implications for how relational information is processed in Studies 1 and 2, we next turned to examining how mindsets impact predictions regarding relationship maintenance. Study 3 was designed to determine whether adopting a particular mindset in service of a personal goal affects individuals' reports of willingness to engage in pro-relationship behavior. We hypothesized that individuals who adopted implemental mindsets with regard to personal goals would report less willingness to engage in pro-relationship behavior, especially when that behavior comes at a cost to a personal goal, than would individuals who adopted deliberative mindsets. To test

this notion, we administered the same mindset manipulation as in the previous two studies and then measured three behavioral indicators of relational maintenance (i.e., accommodation, forgiveness, and willingness to sacrifice).

Method

Design and participants. Participants were 125 undergraduate students at a large, midwestern university (87 men and 38 women) who were currently involved in a romantic relationship. All participants received partial fulfillment of an introductory psychology course requirement in exchange for their participation. The average duration of their relationship was 24.21 months ($SD = 18.1$), and all participants were involved in heterosexual partnerships. Participants' ages ranged from 18 to 43 years ($M = 19.49$, $SD = 2.7$), and the majority indicated that they were White (66.4%, with 23.2% Asian, 2.4% Black, 4.0% Hispanic, and 4.0% indicating other). This study had one between-subjects experimental factor with two levels (mindset: deliberative vs. implemental).

Procedure. Participants attended a 30-min experimental session individually or in small groups of between two and five people. Using the same mindset manipulation as described in the initial two studies, we induced participants to adopt either an implemental or a deliberative mindset with regard to a personal goal and measured their commitment to that goal as a manipulation check. Then, we collected the dependent measures.

Dependent measures. We collected three measures of participants' self-reported likelihood of engaging in pro-relationship behavior to serve as dependent measures: accommodation when a partner has behaved badly, willingness to forgive the hypothetical partner's transgressions, and willingness to sacrifice. First, participants completed a measure of accommodation (Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991). This measure assesses individuals' willingness to inhibit impulses to react destructively and act constructively when a partner has engaged in a potentially destructive act. This measure contains 16 items, four items tapping each of four options for responding to a partner's behavior: (a) exit (e.g., "When my partner is rude to me, I feel so angry I want to walk right out the door"), (b) voice (e.g., "When my partner is rude to me, I try to resolve the situation and improve conditions"), (c) Loyalty (e.g., "When my partner behaves in an unpleasant manner, I forgive my partner and forget about it"), and (d) Neglect (e.g., "When my partner does something thoughtless, I avoid dealing with the situation"). As is commonly done, we reverse-coded the destructive responses (i.e., exit and neglect), and took the mean of those reverse-coded items together with the constructive responses (i.e., voice and loyalty) to use in analyses ($\alpha = .76$).

Next, participants completed a measure of forgiveness created for this study, based on a similar measure used in previous work (Finkel, Burnette, & Scissors, 2007). Participants indicated on a 9-point scale ranging from 1 (*Would not forgive at all*) to 9 (*Would forgive completely*) the degree to which they would forgive their partner for 12 hypothetical transgressions. Four of these transgressions were related to the participant's ability to achieve personal goals (e.g., "Your partner had friends over the night before you had an important exam and kept you from sleeping well"; "Your partner made fun of one of your personal goals") and four of these transgressions were identical to the first four but instead of the transgression thwarting a personal goal, it was merely inconven-

nient (e.g., "Your partner had friends over and kept you from sleeping well, even though he or she knew you were tired"; "Your partner made fun of one of your hobbies"). The remaining four transgressions were general, relationship-based transgressions (e.g., "Your partner is flirtatious with his or her ex"), included only to obscure the intent of our measure (i.e., to compare forgiveness of personal-goal-thwarting transgressions with equivalent, but not goal-thwarting transgressions). For analyses, we computed the mean level of forgiveness for the four personal goal-thwarting transgressions ($\alpha = .73$) and the mean level of forgiveness for the four non-goal-thwarting transgressions ($\alpha = .64$).

Participants then completed a measure of willingness to sacrifice for their relationship. In this measure, participants reflected on the undecided personal problem/intended personal project they wrote about in the mindset manipulation, as well as the four most important activities in their lives unrelated to their relationship, and answered the following question (Van Lange et al., 1997) on a 9-point scale ranging from 1 (*Definitely would not consider giving up activity*) to 9 (*Would definitely consider giving up activity*):

Imagine that it was not possible to engage in this activity and maintain your relationship (impossible for reasons unrelated to your partner's needs or wishes; that is, it wasn't your partner's fault). To what extent would you consider giving up this activity?"

For analyses, we computed the mean level of willingness to sacrifice the four most important activities ($\alpha = .78$) and compared them to the level of willingness to sacrifice for their personal goal (single item). See Table 1 for the correlations between all Study 3 dependent measures.

Finally, participants answered several demographic items about themselves (e.g., age, sex, race/ethnicity), their romantic partner (e.g., age, sex, race/ethnicity), and their romantic relationship (e.g., relationship status, duration).

Results

Manipulation check. Prior to hypothesis testing, we confirmed that all participants in this study wrote about personal goals during the mindset manipulation. As in the previous studies, participants in the deliberative mindset condition endorsed lower commitment toward their goal ($M = 5.58$, $SD = 1.60$) than did participants in the implemental mindset condition ($M = 7.65$, $SD = 1.08$). An independent samples t test revealed that this difference was significant, $t(123) = 8.56$, $p < .001$.

Table 1
Correlations Among Study 3 Dependent Variables

Variable	1	2	3	4	5
Forgiveness of transgression					
1. Non-goal-thwarting	—				
2. Goal-thwarting	.700**	—			
Willingness to sacrifice					
3. Four most important activities	.125	.165	—		
4. Personal goal	.110	.099	.499**	—	
5. Accommodation	.264*	.301**	.003	.171	—

* $p < .01$. ** $p < .001$.

Testing Hypothesis 3. Hypothesis 3 held that individuals who adopted implemental mindsets with regard to personal goals would report less willingness to engage in pro-relationship behavior, especially such behavior that comes at a cost to a personal goal, than would individuals who adopted deliberative mindsets. To test this notion, we first examined accommodation, in which we conducted an independent samples t test, comparing the levels of self-reported willingness to engage in constructive responses to a partner's bad behavior. In line with our hypothesis, participants in a deliberative mindset ($M = 6.69$, $SD = 1.02$) reported greater willingness to engage in constructive responses than did those in an implemental mindset ($M = 6.34$, $SD = 0.98$). This difference was statistically reliable, $t(124) = -2.01$, $p < .05$.

Next, for willingness to forgive and sacrifice, we employed PROC GLM in SAS Version 9.2 to conduct a repeated-measures analysis of variance, examining whether mindset (between-subjects: deliberative vs. implemental) and domain of behavior (within-subject: general vs. personal goal relevant) interacted to predict participants' self-reported willingness to engage in pro-relationship behavior. To begin, we examined willingness to forgive and found that the hypothesized interaction was significant, $F(1, 123) = 10.16$, $p < .01$. Post hoc tests revealed that whereas participants in the two mindset conditions showed equivalent willingness to engage in forgiveness of nonpersonal goal-thwarting transgressions (deliberative: $M = 5.67$; implemental: $M = 5.68$; $t = 0.04$, $p > .90$), participants in the deliberative mindset condition endorsed significantly greater willingness to forgive personal goal-thwarting transgressions ($M = 5.26$) than did participants in the implemental mindset condition ($M = 4.64$; $t = -2.30$, $p < .05$). See the left half of Figure 2 for a visual depiction of this interaction.

Next, we examined willingness to sacrifice and found the hypothesized interaction between mindset and domain of behavior was significant, $F(1, 123) = 3.96$, $p < .05$. Post hoc tests revealed that whereas participants in the two mindset conditions showed equivalent willingness to sacrifice for non-goal-related important activities (deliberative: $M = 3.74$; implemental: $M = 3.66$;

$t = -0.27$, $p > .70$), participants in the deliberative mindset condition endorsed marginally greater willingness to sacrifice for the personal goal ($M = 5.53$) than did participants in the implemental mindset condition ($M = 4.54$; $t = -1.88$, $p = .06$). See the right half of Figure 2 for a visual depiction of this interaction.

Taken together, results support Hypothesis 3. We note, however, that we were not expecting to find that participants in the two mindset conditions would report equivalent willingness to forgive and sacrifice when their personal goals were not thwarted. We did expect the difference to be greater when personal goals were thwarted, as we found, but we had also expected that, regardless of the implications for personal goals, willingness to engage in pro-relationship behaviors would be less in the implemental mindset condition than in the deliberative (as was found with accommodation). Our measures of willingness to engage in pro-relationship behaviors rely upon self-report. In actual situations that require pro-relationship behaviors, the results from Studies 1 and 2 suggest that individuals with an active goal pursuit may be shielded from noticing the opportunity for maintenance exists and needs to be taken. When asked to complete a self-report measure of relationship maintenance, however, participants were explicitly told that relationship maintenance was required (e.g., they needed to sacrifice for their relationship, or it would no longer continue), so the goal-shielding effects may be overridden by the obvious nature of the relationship feedback. This is certainly plausible, given the literature suggesting the predictive validity of relationship measures is greater when assessed in a deliberative mindset than in an implemental mindset (Gagné & Lydon, 2001). Thus, in Study 4, we provided participants with an actual relationship maintenance opportunity (i.e., the opportunity to learn about ways to improve their relationship) and examined whether they acted on it or not. This measure was less reliant upon participants' self-reported approaches to relationship maintenance and thus could provide more information regarding how individuals approach relationship maintenance opportunities when pursuing a personal goal.

Study 4

The aim of Study 4 was to examine how intimately involved individuals approach opportunities to improve their romantic relationship. Having found in Study 3 that participants in the two mindsets reported differential levels of willingness to engage in relationship maintenance behavior in hypothetical situations, we wanted to extend this finding to see what happens when participants were confronted with an actual opportunity for such maintenance. More specifically, we tested whether individuals would take advantage of opportunities to improve their relationship while focused on a personal goal pursuit to the same extent that they would do when deliberating about a personal goal. To that end, Study 4 was designed to test Hypothesis 4 (i.e., individuals who have adopted deliberative mindsets with regard to personal goals would show greater interest in relationship improvement opportunities than would individuals who have adopted implemental mindsets). Additionally, in Study 4, we sought to determine whether having a partner who is instrumental to the personal goal would lead the partner to be immune to any deleterious consequences found. To test this notion, we manipulated participants'

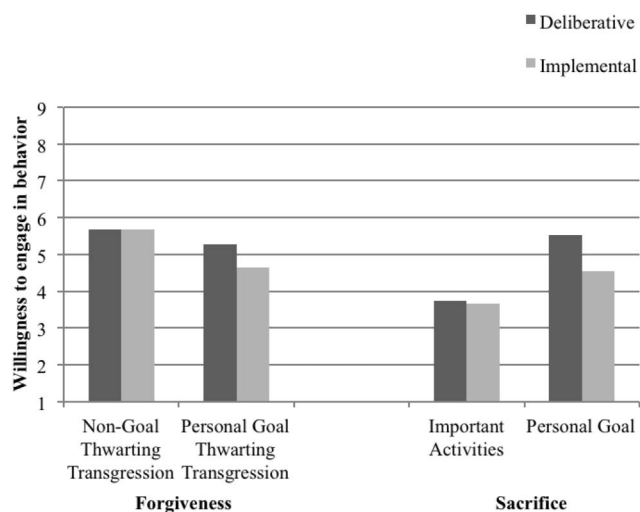


Figure 2. Study 3 results. Scale (willingness to forgive) ranges from 1 (Would not forgive at all) to 9 (Would forgive completely).

mindsets as in the previous studies, measured how much their partner could facilitate their success on the personal goal, and then provided them with an opportunity to rate how interesting each of a series of available tests were to them, under the guise that they would receive personalized feedback for those tests that they rated as most interesting (see Bayer & Gollwitzer, 2005).

Method

Participants and design. Sixty undergraduate students at a large, midwestern university (35 men and 25 women) who were currently involved in a romantic relationship participated and received partial fulfillment of an introductory psychology course requirement. The average duration of their relationship was 27.27 months ($SD = 18.2$), and all participants were involved in heterosexual partnerships. Participants' ages ranged from 18 to 23 years ($M = 19.57$, $SD = 1.3$), and the majority indicated that they were White (76.7%, with 13.3% Asian, 1.7% Black, 5.0% Hispanic, and 3.3% indicating other). This study featured a 2 (mindset: deliberative vs. implemental) \times 2 (domain of information: relational vs. personal) factorial design. Mindset was manipulated between-participants (30 participants in each condition), whereas domain of information was manipulated within-participant.

Procedure. Participants attended a 30-min experimental session individually or in small groups of between two and five people. Using the same mindset manipulation as described in the previous studies, we induced participants to adopt either an implemental or a deliberative mindset with regard to a personal goal and measured their commitment to that goal as a manipulation check. After rating their commitment to the personal goal, participants reported how instrumental their partners were to achievement of that goal, using the language used by Fitzsimons and Shah (2008, p. 322). Specifically, they were asked the following:

How much does your romantic partner facilitate the achievement of your intended personal project? (NOTE: When we say "facilitate" your achievement of your intended personal project, we mean simply that your partner'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. Most partners facilitate at least one goal, but it is rare that any one person facilitates many goals).

They rated their partners' facilitation ability on a scale from 1 (*Does not facilitate at all*) to 9 (*Facilitates very much*). Then, we collected the dependent measures.

Dependent measure. The dependent measure was collected during what participants presumed was the second experiment. As has been done in previous research (Bayer & Gollwitzer, 2005), participants were told that they would work on a new personality and ability test in a self-paced manner and that they could choose between test materials, depending on the type of skill on which they wished to be tested. We also informed participants that they would receive feedback on the test after completing it that could be useful to them. Presumably so that the research assistant could learn more about their specific test preferences, participants were asked to fill out a simple questionnaire, consisting of 12 questions. Within these questions was the within-participant manipulation of domain of information; six of these questions inquired about relational topics (e.g., "How can I improve communication in my relationship?"; "What are good ways to increase intimacy in my

relationship?") and six inquired about personal topics (e.g., "How can I better balance my time between work and free time?", "What career should I go into?"). Each of these questions came from a pool of 57 items that were written specifically for this study. Prior to conducting Study 4, we asked a separate sample of 43 undergraduates with a similar demographic profile as the sample of Study 4 to rate how interesting they found each of the 57 items. The 12 items used in Study 4 were selected from this pool based on the mean level of participants' interest in them, such that the personal items were as interesting ($M = 5.59$, $SD = 1.48$, range: 1.17–7.83) as the relational items ($M = 5.59$, $SD = 1.21$, range: 1.50–7.67). A paired t test of the pretest data indicated that participants did not find the two types of information to be differentially interesting, $t(42) = -0.02$, $p > .90$.

Participants in Study 4 rated how interested they were in receiving answers to these 12 questions on a 9-point scale ranging from 1 (*Not interested at all*) to 9 (*Very interested*). After rating how interested they were in the available test materials, participants answered several demographic items about themselves (e.g., age, sex, race/ethnicity), their romantic partner (e.g., age, sex, race/ethnicity), and their romantic relationship (e.g., relationship status, duration). Participants were then thoroughly debriefed and told that the test construction cover story was not true and that the two experiments were actually designed to test one research question.

Results

Manipulation check. Prior to hypothesis testing, we first ensured that all participants wrote about personal goals during the mindset manipulation. One participant in the implemental condition wrote about a relational goal (i.e., "Propose to my girlfriend"), and therefore we removed his data from all analyses (he is not included in the previous demographic profile). Next, to ensure our manipulation was successful, we examined whether participants in the deliberative and implemental conditions endorsed significantly different levels of commitment toward the goal about which they wrote. As expected, participants in the deliberative condition endorsed lower commitment toward their goal ($M = 5.80$, $SD = 1.65$) than did participants in the implemental mindset ($M = 7.21$, $SD = 1.50$). An independent samples t test revealed that this difference was significant, $t(58) = 3.47$, $p < .001$.

Testing Hypothesis 4. Hypothesis 4 held that individuals who adopted deliberative mindsets with regard to personal goals would show greater interest in learning about how to improve their relationship than would individuals who adopted implemental mindsets, but the two groups would not differ with regard to their interest in improving their personal goal pursuits. To test this notion, we employed PROC GLM in SAS Version 9.2 to conduct a repeated-measures analysis of variance, examining whether mindset (between-subjects: deliberative vs. implemental) and domain of information (within-subject: personal vs. relational) interacted to predict participants' self-reported interest in the information. This interaction was significant, $F(1, 58) = 4.78$, $p < .05$. See Figure 3 for a visual depiction of this interaction. Post hoc tests revealed that whereas participants in the two mindset conditions showed equivalent interest in the personal information (deliberative: $M = 6.46$; implemental: $M = 6.50$; $t = 0.13$, $p > .80$), participants in the deliberative mindset condition endorsed significantly greater interest in the relational information ($M = 7.00$)

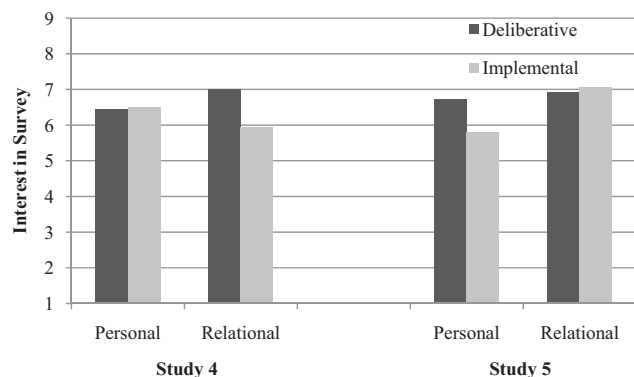


Figure 3. Results of Studies 4 and 5. Scale (interest in survey answers) ranges from 1 (*Not interested at all*) to 9 (*Very interested*).

than did participants in the implemental mindset condition ($M = 5.96$; $t = -2.62$, $p = .01$). Thus, Hypothesis 4 was supported. For completeness, we also examined the simple effects within condition. There were no significant differences in amount of interest endorsed for the two types of information within the implemental condition, $t = 1.42$, $p = .17$, or within the deliberative condition, $t = -1.70$, $p = .09$.

Partner instrumentality. We next examined whether this effect was moderated by whether the partner was instrumental to the goal pursuit or not. As before, we tested whether mindset (between-subjects: deliberative vs. implemental), domain of information (within-subject: personal vs. relational), and partner instrumentality (between-subjects continuous measure) interacted to predict participants' self-reported interest in the information. This interaction was not significant, $F(1, 56) = 0.27$, $p > .60$.¹

This study, together with the previous three, provides evidence that individuals differentially process and evaluate information relevant to their relationship depending on what mindset they have adopted with regard to a personal goal. We also wished to elucidate the mechanism of these findings further, however, and show that the mindset that arises to facilitate a personal goal leads to biased processing to facilitate success on that goal. The alternate explanation would be that the implemental mindset simply leads to greater self-enhancement and self-focus, allowing individuals to perceive that their relationship need not be maintained. To rule out this alternate explanation, in Study 5, we evoked an implemental mindset with regard to a relational goal to examine whether it led to less interest in personal betterment (in line with our hypothesis that the mindset protects the active goal at the cost of the alternative domain) or instead was associated with less interest in relational betterment (in line with the alternate hypothesis that the mindset leads to self-enhancement and reduced need for relationship maintenance).

Study 5

Study 5 was designed to provide additional clarity as to the mechanism of the effect obtained in Study 4. As described in the introduction, the predictive validity of relationship evaluations is greater when in a deliberative mindset than when in an implemental mindset, both when the mindsets are evoked with regard to

personal goals (Gagné & Lydon, 2001) and relational goals (Gagné, Lydon, & Bartz, 2003). This raises the possibility that the effect obtained in Study 4 (i.e., reduced interest in relationship betterment information when in an implemental mindset) is attributable to the fact that being in an implemental mindset, regardless of the domain of goal it arose to facilitate, is associated with greater self-focus and self-enhancement, and these qualities contribute to individuals perceiving that their relationship needs no betterment. On the other hand, research shows that the implemental mindset is associated with shielding the active goal from unwanted influences and with focusing on the domain of the goal and ignoring goal-irrelevant information, which suggests that the effects obtained in Study 4 may be due to goal-shielding rather than increased optimism. To determine which mechanism is more likely, we conducted Study 5, in which we directly replicated Study 4 except that we evoked the mindset with regard to a relational goal. If the results of Study 5 show the same pattern as obtained in Study 4, then the results of the previous studies could be attributed to the greater self-focus and self-enhancement associated with goal striving. However, we predicted that evoking an implemental mindset with regard to a relational goal would reverse the pattern shown in Study 4 and participants would show increased interest in relationship betterment information and decreased interest in personal betterment. This would suggest that the mechanism underlying the Study 4 effect was goal shielding and that personal goals have implications for relational maintenance through that mechanism.

Method

Participants and design. Fifty-five undergraduate students (21 men and 34 women) at a large, public university in the midwestern United States who were currently involved in a romantic relationship participated and received partial fulfillment of an introductory psychology course requirement. All participants were involved in heterosexual partnerships. Participants' ages ranged from 18 to 24 years ($M = 19.33$, $SD = 1.3$), and the majority indicated that they were White (61.1%, with 27.8% Asian, 5.6% Black, 1.9% Hispanic, and 3.6% indicating other). This study featured a 2 (mindset: deliberative vs. implemental) \times 2 (domain of information: relational vs. personal) factorial design. Mindset was manipulated between-participants, whereas domain of information was manipulated within-participant.

Procedure. Study 5 is a direct replication of Study 4, with one exception. During the mindset manipulation, instead of being instructed to write about a personal goal, participants were instructed to write about a relationship goal. Specifically, participants were told to consider a

¹ There is a possibility that participants in Study 4 selected goals for which their partner was instrumental if the relationship was strong and goals for which their partner was not instrumental if the relationship was weak and that this self-selection is responsible for the effects obtained. To rule this out, we conducted an additional study in which we experimentally manipulated instrumentality. Complete results of this study are available from the first author, but briefly, when participants were randomly assigned to write about a goal in which their partner was instrumental or a goal in which their partner was not instrumental, the same pattern emerged, such that instrumentality did not moderate test selection preferences.

relational [problem/project] in your life that is important to you [that you are undecided about pursuing/and can be accomplished in the near future]. This problem can be anything to do with your relationship, from addressing a particular problem (e.g., communicating better, spending more time together), to making a change in the status of your relationship (e.g., becoming more committed, breaking up), to thinking of something you would like to do with your partner. Regardless of what [undecided relational problem/intended relational project] you select, it should take the form of ["Should I do *X* or not?" (e.g., "Should I talk to my partner about moving in together or not?")/"In the near future, I will do *X*" (e.g., "In the near future, I will talk to my partner about moving in together")].

The words in brackets present the two options, with the pre-slash words being what was presented to those in the deliberative mindset, whereas those post-slash were presented to those in the implemental mindset. All other procedural details and variables collected in Study 5 were identical to those featured in Study 4.

Results

Manipulation check. Prior to hypothesis testing, we first ensured that all participants wrote about a relational goal during the mindset manipulation. Next, to ensure our manipulations were successful, we examined whether participants in the deliberative and implemental conditions endorsed significantly different levels of commitment toward the goal about which they wrote. As expected, participants in the deliberative condition endorsed lower commitment toward their goal ($M = 4.89$, $SD = 2.23$) than did participants in the implemental mindset ($M = 6.22$, $SD = 2.36$). An independent samples t test revealed that this difference was significant, $t(54) = 2.02$, $p < .05$.

Testing Hypothesis 4. In Study 5, we tested the reverse of Hypothesis 4. Specifically, we hypothesized that individuals who adopted deliberative mindsets with regard to *relational* goals would show greater interest in learning about how to improve their *personal* goals than would individuals who adopted implemental mindsets, but the two groups would not differ with regard to their interest in improving their *relational* goal pursuits. We employed PROC GLM in SAS Version 9.2 to conduct a repeated-measures analysis of variance, examining whether mindset (between-subjects: deliberative vs. implemental) and domain of information (within-subject: personal vs. relational) interacted to predict participants' self-reported interest in the information. In line with Study 4, this interaction was significant, $F(1, 54) = 4.85$, $p < .05$. Post hoc tests revealed that the pattern was completely reversed from Study 4, as expected. Whereas participants in the two mindset conditions showed equivalent interest in the relational information (deliberative: $M = 6.93$; implemental: $M = 7.07$; $t = 0.34$, $p > .70$), participants in the deliberative mindset condition endorsed significantly greater interest in the personal information ($M = 6.74$) than did participants in the implemental mindset condition ($M = 5.80$; $t = -2.27$, $p < .05$). Thus, we have evidence that the domain that the implemental mindset rose to facilitate (i.e., personal vs. relational) is critical in influencing the impact of that mindset for other domains of life. In other words, the effect obtained in Study 4 (i.e., that being in an implemental mindset with regard to a personal goal led individuals to show less interest in relationship maintenance opportunities) is not due to simply being especially optimistic in an implemental mindset but instead attributable to the relationship-goal-shielding effect of being in an

implemental mindset with regard to a personal goal. Again, to be complete, we also examined the simple effects within condition. There were no significant differences in amount of interest endorsed for the two types of information within the deliberative condition, $t = -0.69$, $p = .49$, but within the implemental condition participants were more interested in the relational information than the personal, $t = -2.98$, $p < .01$.

Discussion

Taken together, the results of these five studies suggest ways in which ongoing personal goal pursuits can disrupt relationship maintenance processes. We found that when a personal goal pursuit was motivationally active, versus when it was not, individuals engaged in one-sided, evaluatively polarized assessments of information, reported lower willingness to engage in some types of behavioral relationship maintenance, and were more likely to forego a presented opportunity to improve their relationship. More broadly, we found that the mindsets adopted to facilitate the achievement of personal goals influenced individuals' ability and willingness to enact necessary relationship maintenance.

To facilitate goal pursuits, mindsets involve differences in the way information is processed that may impact involved partners' relationship maintenance efforts. During goal pursuits, if individuals attend to all information in their social world impartially, there will be times when that information suggests they should divert their focus to a task that may not facilitate, or may even derail, the ongoing goal pursuit. To help ensure this does not occur, the implemental mindset shields the goal by promoting one-sided, evaluatively polarized assessments of information. This type of assessment allows individuals to maintain their previously held beliefs, which helps them to remain focused on their personal goal pursuits. For example, if an individual who is highly satisfied with his or her relationship becomes focused on an academic goal pursuit, we hypothesized that he or she would process new relationship-relevant information as positive and without much nuance or variability, which would provide him or her the latitude to continue to focus exclusively on his or her personal goal with the confidence that his or her relationship is doing just fine. In that way, the mindsets shield the goal pursuit from being derailed. Even when individuals were not highly satisfied, we expected a similar process of one-sided, evaluatively polarized assessments to occur; as long as the relationship information is as expected, the individual can feel comfortable pursuing a personal goal without diverting attention to the relationship. Indeed, the results from Studies 1 and 2 supported our hypotheses.

In Study 3, we examined whether a motivationally active personal goal influenced individuals' willingness to report that they would engage in relationship maintenance. According to interdependence theory (Kelley, 1979), the processing of relationship information is crucial to the outcomes received in that relationship. How individuals process relationship-relevant information (e.g., how satisfied they are, how much trust to place in their partners, what to make of incoming relationship feedback) is key to predicting the sorts of behavioral maintenance they engage in and whether their relationship remains stable (as summarized in Holmes, 2000). Finding that active goal pursuits lead to relationship cognitions that are designed to keep individuals focused on the goal, rather than on maximizing their relational outcomes, we

expected and found evidence that participants in an implemental mindset would report lower willingness to engage in relationship maintenance that required cost to a personal goal. The pro-relationship maintenance mechanisms examined in this study represent responses to two different classes of relationship threat. Willingness to sacrifice is a response to noncorrespondence of outcomes (i.e., instances in which the actions that benefit one partner in a relationship do not benefit the other; Kelley & Thibaut, 1978), whereas accommodation and forgiveness are both responses to destructive partner behavior (Agnew & VanderDrift, *in press*). That the same process occurred for both types of maintenance lends generalizability to our findings and suggests that, regardless of the nature of the threat to the relationship, ongoing personal goal pursuits can impact individuals' willingness to engage in pro-relationship behavior in the face of that threat. Future research aimed at determining how much threat could be present during an ongoing goal pursuit before an individual shifts focus to the relationship would be particularly illuminating.

In Study 4, we built upon the findings of Studies 1–3 and presented participants with an actual relationship maintenance opportunity. We found that when in an implemental mindset with regard to a personal goal, individuals were less interested in learning about ways to improve their relationship than when deliberating about a personal goal. Furthermore, in Study 5, we found that this pattern is truly an effect of an implemental mindset energizing an active goal and shielding it from unwanted influences. Examining the pattern of simple effects within mindset across the two studies provides further evidence of this. In both studies, the deliberative mindset presents an image of how interesting the tests are in the context of each study (i.e., it is a control or baseline measurement of sorts), and deviations from the pattern of interest in the deliberative mindset provide information relevant to how the goal pursuit changes cognitions. When the mindsets arose to facilitate a personal goal (Study 4), the relational tests were marginally more interesting than the personal to participants in a deliberative mindset. This pattern reversed, albeit not significantly, in the implemental mindset. When the mindsets arose to facilitate a relational goal (Study 5), the relational and personal tests were equivalently interesting to participants in deliberative mindsets, but to those in an implemental mindset, the relational tests were perceived as much more interesting. In both studies, then, the pattern began such that relational information was perceived as more interesting in the context of our study, but when the implemental mindset was evoked, relative to the personal goal information, the relational information was seen as either less interesting (in the personal goal study) or more interesting (in the relational goal study).

Many relationship maintenance mechanisms rely on individuals' processing information relevant to their relationship in a particular way. Akin to how mindsets arise to guide goal pursuits, the interpersonal goals individuals hold for their relationships unconsciously guide perception and behavior in relationships, leading to the development of helpful positive illusions, relationship transformations, and other maintenance processes (Agnew & VanderDrift, *in press*; Fitzsimons & Bargh, 2003). That an ongoing personal goal pursuit can influence how information is processed is potentially troubling for a relationship, as it suggests that personal goal pursuits can override the types of processing necessary for relationship maintenance. Future research is necessary to

examine the extent of this danger, as well as what adaptations individuals possess to allow successful pursuit of both personal and relational goals. Hypothetically, we expect that cues that the personal goal is progressing well may lead to a temporary deprioritizing of that goal, which would lead to attention paid to the relationship. We also believe that the results from Study 5 could provide a helpful suggestion for future research aimed at helping individuals not forego relationship maintenance when pursuing a personal goal: if individuals view their relationship maintenance as a personal goal itself, striving to balance success of both goals could lead to greater balance.

The Personal-Relational Equilibrium Model (Kumashiro et al., 2008) suggests that people are adept at noticing when their goal fulfillment is favoring one domain over the other. The results of the current studies, in which an active goal pursuit shields the goal from the individual noticing and attending to other domains, suggest individuals may not be aware of disequilibrium when a personal goal pursuit is motivationally active. Future research is needed to ascertain at what stages of goal pursuits individuals become aware of disequilibrium and whether the theorized unpleasant tension of disequilibrium can be induced during goal pursuits to facilitate individuals pursuing successfully personal and relational goals simultaneously.

As with all research, the current work has limitations that are necessary to consider when interpreting the findings. First, the samples were composed exclusively of college students, leading the personal goals selected to be disproportionately academic. Extending this work to a sample of working adults would be helpful, as it may provide the ability to test whether different domains of personal goals have different effects on relationship maintenance. We expect that the same pattern should hold, but future research testing this hypothesis is necessary to know with certainty. Additionally, we did not employ true control conditions in any of our studies and instead examined our hypotheses using the deliberative mindset as a type of control condition. All of our hypotheses were intended to compare the effects when individuals are focused on a goal pursuit versus when they are not, and accordingly, we felt that the deliberative mindset condition offered appropriate comparison information. Moreover, in examining other published studies in which a control condition, a deliberative mindset condition, and an implemental mindset condition were all collected (studies with outcomes such as persistence after behavioral conflict: Brandstätter & Frank, 2002); perceptions of risk: Taylor & Gollwitzer, 1995; or relationship closeness: Gagné et al., 2003), the deliberative and control conditions do not differ, yet they both differ from the implemental mindset. This gave us some confidence that the deliberative mindset is more akin to the neutral, everyday mindset in which individuals generally find themselves.

Daily life is associated with balancing the tasks necessary to fulfill goals spanning several domains of life. In the current studies, we examined what impact an ongoing personal goal pursuit had on the attention paid to relational goals, as well as the information processing associated with relational goals. Relationship maintenance processes influence perceptions of the relationship and partner and, to be effective, often require individuals attend to and place the broader interests of the relationship ahead of immediate, self-interested instincts (Holmes, 2000; Kelley & Thibaut, 1978). To shield active goal pursuits, the implemental mindset limits the attention paid to goal-irrelevant information and is

associated with one-sided, evaluatively polarized assessments of information. As such, we hypothesized that an implemental mindset with regard to a personal goal pursuit may disrupt relationship maintenance. Indeed, in the current studies, we found that when a personal goal pursuit was motivationally active, individuals processed relationship information in a one-sided, evaluatively polarized fashion, reported lowered willingness to engage in some types of relationship maintenance, and were increasingly likely to forego a relationship maintenance opportunity. This work provides an understanding of how pursuing a personal goal can undermine relationship functioning. It is our hope that future research will build on these findings and identify how individuals can avoid such deleterious consequences.

References

- Agnew, C. R., & VanderDrift, L. E. (in press). Relationship maintenance and dissolution processes. In M. Mikulincer & P. R. Shaver (Eds.), *APA handbook of personality and social psychology*. Washington, DC: American Psychological Association.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Aron, E. N., & Aron, A. (1996). Love and the expansion of the self: The state of the model. *Personal Relationships*, 3, 45–58. doi:10.1111/j.1475-6811.1996.tb00103.x
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497–529. doi:10.1037/0033-2909.117.3.497
- Bayer, U. C., & Gollwitzer, P. M. (2005). Mindset effects on information search in self-evaluation. *European Journal of Social Psychology*, 35, 313–327. doi:10.1002/ejsp.247
- 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. doi:10.1037/0022-3514.57.5.792
- Brandstätter, V., & Frank, E. (2002). Effects of deliberative and implemental mindsets on persistence in goal-directed behavior. *Personality and Social Psychology Bulletin*, 28, 1366–1378. doi:10.1177/014616702236868
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44, 113–126. doi:10.1037/0022-3514.44.1.113
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227–268. doi:10.1207/S15327965PLI1104_01
- Drigotas, S. M., & Rusbult, C. E. (1992). Should I stay or should I go? A dependence model of breakups. *Journal of Personality and Social Psychology*, 62, 62–87. doi:10.1037/0022-3514.62.1.62
- Emmons, R. A. (1986). Personal strivings: An approach to personality and subjective well-being. *Journal of Personality and Social Psychology*, 51, 1058–1068. doi:10.1037/0022-3514.51.5.1058
- Finkel, E. J., Burnette, J. L., & Scissors, L. E. (2007). Vengefully ever after: Destiny beliefs, state attachment anxiety, and forgiveness. *Journal of Personality and Social Psychology*, 92, 871–886. doi:10.1037/0022-3514.92.5.871
- Fitzsimons, G. M., & Bargh, J. A. (2003). Thinking of you: Nonconscious pursuit of interpersonal goals associated with relationship partners. *Journal of Personality and Social Psychology*, 84, 148–164. doi:10.1037/0022-3514.84.1.148
- Fitzsimons, G. M., & Fishbach, A. (2010). Shifting closeness: Interpersonal effects of personal goal progress. *Journal of Personality and Social Psychology*, 98, 535–549. doi:10.1037/a0018581
- Fitzsimons, G. M., & Shah, J. (2008). How goal instrumentality shapes relationship evaluations. *Journal of Personality and Social Psychology*, 95, 319–337. doi:10.1037/0022-3514.95.2.319
- Fraley, R. C., Waller, N. G., & Brennan, K. A. (2000). An item-response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology*, 78, 350–365. doi:10.1037/0022-3514.78.2.350
- Gagné, F. M., & Lydon, J. E. (2001). Mindset and relationship illusions: The moderating effects of domain specificity and relationship commitment. *Personality and Social Psychology Bulletin*, 27, 1144–1155. doi:10.1177/0146167201279007
- Gagné, F. M., Lydon, J. E., & Bartz, J. A. (2003). Effects of mindset on the predictive validity of relationship constructs. *Canadian Journal of Behavioral Science/Revue canadienne des sciences du comportement*, 35, 292–304. doi:10.1037/h0087209
- Gaines, S. O., Jr., & Agnew, C. R. (2003). Relationship maintenance in intercultural couples: An interdependence analysis. In D. J. Canary & M. Dainton (Eds.), *Maintaining relationships through communication: Relational, contextual, and cultural variations* (pp. 231–253). Mahwah, NJ: Erlbaum.
- Gollwitzer, P. M. (1990). Action phases and mindsets. In E. T. Higgins & R. M. Sorrentino (Eds.), *Handbook of motivation and cognition: Foundations of social behavior* (pp. 403–422). New York, NY: Guilford Press.
- Gollwitzer, P. M., Heckhausen, H., & Steller, B. (1990). Deliberative and implemental mind-sets: Cognitive tuning toward congruous thoughts and information. *Journal of Personality and Social Psychology*, 59, 1119–1127. doi:10.1037/0022-3514.59.6.1119
- Gollwitzer, P. M., & Kinney, R. F. (1989). Effects of deliberative and implemental mind-sets on the illusion of control. *Journal of Personality and Social Psychology*, 56, 531–542. doi:10.1037/0022-3514.56.4.531
- Heckhausen, H., & Gollwitzer, P. M. (1987). Thought contents and cognitive functioning in motivational vs. volitional states of mind. *Motivation and Emotion*, 11, 101–120. doi:10.1007/BF00992338
- Henderson, M. D., de Liver, Y., & Gollwitzer, P. M. (2008). The effects of an implemental mind-set on attitude strength. *Journal of Personality and Social Psychology*, 94, 396–411. doi:10.1037/0022-3514.94.3.396
- Holmes, J. G. (2000). Social relationships: The nature and function of relational schemas. *European Journal of Social Psychology*, 30, 447–495. doi:10.1002/1099-0992(200007/08)30:4<447::AID-EJSP10>3.0.CO;2-Q
- Kelley, H. H. (1979). *Personal relationships: Their structures and processes*. Hillsdale, NJ: Erlbaum.
- Kelley, H. H., Holmes, J. G., Kerr, N. L., Reis, H. T., Rusbult, C. E., & Van Lange, P. A. M. (2003). *An atlas of interpersonal situations*. Cambridge, England: Cambridge University Press.
- Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonal relations: A theory of interdependence*. New York, NY: Wiley.
- Kiecolt-Glaser, J. K., Fisher, L. D., Ogrocki, P., Stout, J. C., Speicher, C. E., & Glaser, R. (1987). Marital quality, marital disruption, and immune function. *Psychosomatic Medicine*, 49, 13–34.
- 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. doi:10.1037/0022-3514.95.1.94
- Murray, S. L., & Holmes, J. G. (1993). Seeing virtues in faults: Negativity and the transformation of interpersonal narratives in close relationships. *Journal of Personality and Social Psychology*, 65, 707–722. doi:10.1037/0022-3514.65.4.707
- Patrick, H., Knee, C., Canevello, A., & Lonsbary, C. (2007). The role of need fulfillment in relationship functioning and well-being: A self-determination theory perspective. *Journal of Personality and Social Psychology*, 92, 434–457. doi:10.1037/0022-3514.92.3.434

- Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interaction effects in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics, 31*, 437–448. doi:10.3102/10769986031004437
- Rusbult, C. E. (1980). Commitment and satisfaction in romantic associations: A test of the investment model. *Journal of Experimental Social Psychology, 16*, 172–186. doi:10.1016/0022-1031(80)90007-4
- Rusbult, C. E., & Agnew, C. R. (2010). Prosocial motivation and behavior in close relationships. In M. Mikulincer & P. R. Shaver (Eds.), *Prosocial motives, emotions, and behavior* (pp. 327–345). Washington, DC: American Psychological Association. doi:10.1037/12061-017
- Rusbult, C. E., Finkel, E. J., & Kumashiro, M. (2009). The Michelangelo phenomenon. *Current Directions in Psychological Science, 18*, 305–309. doi:10.1111/j.1467-8721.2009.01657.x
- Rusbult, C. E., Martz, J. M., & Agnew, C. R. (1998). The Investment Model Scale: Measuring commitment level, satisfaction level, quality of alternatives, and investment size. *Personal Relationships, 5*, 387–391. doi:10.1111/j.1475-6811.1998.tb00177.x
- Rusbult, C. E., Verette, J., Whitney, G. A., Slovick, L. F., & Lipkus, I. (1991). Accommodation processes in close relationships: Theory and preliminary empirical evidence. *Journal of Personality and Social Psychology, 60*, 53–78. doi:10.1037/0022-3514.60.1.53
- Taylor, S. E., & Gollwitzer, P. M. (1995). Effects of mindset on positive illusions. *Journal of Personality and Social Psychology, 69*, 213–226. doi:10.1037/0022-3514.69.2.213
- VanderDrift, L. E., & Agnew, C. R. (2012). Need fulfillment and stay-leave behavior: Differential diagnosticity of personal and relational needs. *Journal of Social and Personal Relationships, 29*, 228–245. doi:10.1177/0265407511431057
- Van Lange, P. A., Rusbult, C. E., Drigotas, S. M., Arriaga, X. B., Witcher, B. S., & Cox, C. L. (1997). Willingness to sacrifice in close relationships. *Journal of Personality and Social Psychology, 72*, 1373–1395. doi:10.1037/0022-3514.72.6.1373
- Webb, T. L., Sheeran, P., Gollwitzer, P. M., & Trötschel, R. (2012). Strategic control over the unhelpful effects of primed social categories and goals. *Zeitschrift für Psychologie/Journal of Psychology, 220*, 187–193.

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