Implicit Theories of Relationships: Moderators of the Link Between Conflict and Commitment

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In two studies, implicit theories of relationships were examined as moderators of the association between experienced conflict and commitment. Study 1 involved 128 individuals in heterosexual romantic relationships and employed an eventcontingent diary procedure in which disagreements were recorded throughout a 10-day period. Study 2 was conducted in the laboratory and involved 75 heterosexual couples who discussed problems in their relationship, with commitment measured before and after discussion. Multilevel random coefficient models revealed that conflict was generally associated with lower commitment but less so with growth belief. Also, growth belief was most beneficial under negative relationship conditions, such as when one possessed a less favorable view of the partner to begin with and when the issue remained unresolved after discussion.

Keywords: implicit theories; relationships; conflict; commitment; beliefs

Recent reviews of research on conflict and satisfaction in marriage have urged investigators to adopt more theory-based approaches in an area that has traditionally been relatively atheoretical and observational (Bradbury, Fincham, & Beach, 2000; Fincham & Beach, 1999). Theoretical approaches would afford a better understanding of the process of how, when, and why potentially negative variables (e.g., disagreement with one's partner) tend to predict negative outcomes (e.g., dissatisfaction with the relationship). For example, research on the degree to which conflict is associated with decreased satisfaction remains unclear. In some cases, reversal effects have been found such that some negative behavior may be useful and perhaps even necessary for long-term marital health (Berscheid & Reis, 1998; Fincham & Beach, 1999). Others have argued that reversal effects may be more spurious than substantive and that willingness to engage in problems may result in increased expression of negative affect (Holmes & Murray, 1996). We believe that one factor that moderates the extent to which a generally negative variable (e.g., disagreement with one's partner) has a detrimental effect on relationship quality is the meaning one assigns to that variable.

Consider, for example, Rusbult's (1980, 1983) work on relationship investment. This line of research has examined the ways in which satisfaction, investment in the relationship, and quality of alternatives contribute to relationship commitment (Bui, Peplau, & Hill, 1996).

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This research has suggested that the more invested individuals are in a relationship (i.e., the more resources they have put into the relationship), the more likely they are to feel committed to that relationship and remain in it. However, some individuals may be differentially affected by investment or may feel increased investment based on different relationship experiences. For example, some may see confronting or working through problems as one way that they become more invested in a relationship, whereas others may see such confrontations as an indication that the relationship is not worth continuing. The process of acknowledging and working through problems involves putting time and emotional energy into the relationship. Also, feeling that a conflict has been resolved may be a necessary part of feeling invested after conflict for those who assign a generally malignant meaning to disagreements. For others who assign a more benign meaning to conflict, whether the issue is immediately resolved may be less important. In some cases, people may feel relatively better about their relationship (or less worse) after conflict because of the process of resolving the issue, which they may interpret as becoming further invested in their relationship. Examination of potential buffers of otherwise "negative" relationship variables (e.g., problems, disagreements) would seem essential for understanding how some relationships can remain robust despite adverse circumstances and events.

The current research takes a social cognitive approach using an established theoretical framework to better understand how individuals deal with negative events and problems in their romantic relationships. The implicit theories framework has already led to a better understanding of how and why individuals give up or persist in the face of challenges and setbacks in other literatures (see Dweck, Chiu, & Hong, 1995, for review). Similarly, previous research on romantic relationships suggests that individuals' mental models of how relationships operate affect the attributions and inferences they draw from interactions, the strategies they use to cope with stressful relationship events, the importance they place on their partner's limitations, and the extent to which they persist in the relationship or abandon the relationship when challenges arise (Franiuk, Cohen, & Pomerantz, 2002; Knee, 1998; Knee, Nanayakkara, Vietor, Neighbors, & Patrick, 2001; Knee, Patrick, & Lonsbary, 2003).

IMPLICIT THEORIES OF RELATIONSHIPS

Implicit theories of relationships (ITRs), as defined here, are characterized by a belief in romantic destiny and a belief in relationship growth (Knee, 1998). As with implicit theories in the achievement literature, ITRs are implicit in that they are strongly held but rarely articulated beliefs about how relationships develop. Belief in relationship growth involves believing that relationships develop gradually over time and that overcoming problems is often the key to growing closer and building a stronger relationship. For those who believe in growth, the primary goals in a romantic relationship are maintenance and improvement. Indeed, growth belief has been associated with fewer one-night stands during the 1st month of college, more time spent dating the same person, and more attempts to maintain or repair a relationship when problems arise (Knee, 1998). An independent belief in romantic destiny involves believing that relationship partners are either meant for each other or they are not and with diagnosing the future potential of romantic relationships. Once those who believe in destiny think that a relationship is meant to be, their relationships last particularly long. However, when problems arise early on, or when initial satisfaction is low, belief in destiny is associated with disengaging from the relationship (Knee, 1998).

Initial research on ITRs has shown that destiny and growth beliefs are conceptually and statistically independent dimensions. Thus, rather than representing opposing ends of a single continuum of relationship beliefs, destiny and growth beliefs represent two distinct dimensions such that one's score on destiny belief is unrelated to one's score on growth belief. The two beliefs can therefore be studied jointly or separately. Growth belief seems directly relevant to conflict because it is concerned with maintaining and improving relationships and is directly connected to beliefs about whether problems can be resolved. In addition, previous research seems to suggest that growth belief is particularly important in dealing with other negative relationship events and experiences (Knee et al., 2001).

For example, Knee et al. (2001) examined how people's beliefs about relationships affect their responses to discrepancies in their relationship. Study 1 examined discrepancy in terms of the difference between one's current and ideal partners. This study showed that, in general, perceiving a greater discrepancy between one's current partner and one's ideal partner was associated with being less satisfied in the relationship. However, this was moderated by ITRs such that the association between discrepancy and satisfaction was weaker with belief in growth. This effect was particularly strong when higher growth belief was coupled with lower destiny belief. Study 2 examined discrepancy differently, focusing instead on discrepancies in how partners viewed the relationship. Participants engaged in a series of semistructured interviews designed to emphasize discrepancies in how they viewed their relationship. Of importance, they completed measures of emotion before and after the interview. Growth belief significantly predicted increased positivity and decreased

depression as a function of discussing discrepant views of the relationship with one's partner. Together, these two studies suggested that growth belief may act as a buffer for otherwise negative relationship experiences.

While growth belief concerns beliefs about maintaining the relationship, destiny belief is about identifying whether a partner is a good match and about inferring the future potential of the relationship. Thus, although destiny belief seems somewhat less relevant to issues of maintaining the relationship, the presence of conflict could be perceived as an indicator that the relationship is not meant to be. However, in an established and satisfying relationship, destiny belief also may imbue one's relationship with a particular meaning—that the relationship is unique and valuable—that could potentially help one to overlook or deny the importance of a conflict.

We suggest that conflict is a potentially negative factor in relationships that may either bring partners closer or force them apart, depending on one's ITRs. When one holds a belief that conflict is a healthy part of relationships and can potentially bring partners closer through resolution of the conflict, then differences and disagreements can take on different meaning. Whereas conflict per se can be associated with lower commitment to the relationship, this may not be the case for everyone. The interpretation, meaning, and inferences that partners draw from the presence of conflict would seem an important moderator of its impact on how partners feel about the relationship. Growth belief, in particular, may serve to buffer the more typical negative effect of conflict on one's evaluation of the relationship because it concerns belief about the nature of maintaining the relationship.

OVERVIEW

Two studies examined whether ITRs moderate the association between relationship conflict and commitment. Study 1 employed an event-contingent diary methodology in which participants recorded daily disagreements with their partner, along with their feelings of commitment, as they occurred throughout a 10-day period. In Study 2, partners discussed a problem in the relationship in a more controlled laboratory setting, with commitment measured before and after the discussion. In Study 1, we expected that level of conflict would be associated with lower commitment after disagreements (Hypothesis 1 [H1]). More important, the association between perceptions of conflict and commitment after disagreements would be moderated by ITRs such that the association would be weaker for those higher in growth belief and stronger for those higher in destiny belief (Hypothesis 2 [H2]).

In addition, we considered whether ITRs would be more or less effective buffers against conflict under particularly adverse conditions, such as when the disagreement remained unresolved. Growth and destiny beliefs reflect how one assigns meaning to relationship events, with growth belief centering around how relationships are maintained and developed and destiny belief centering around how the future potential of the relationship is determined. ITRs thus set in motion a process that guides the perception, interpretation, attribution, and resolution of events relevant to the relationship. In this way, ITRs may be particularly important under adverse relationship conditions, such as when issues remain unresolved after attempts to discuss them. It is under these potentially adverse conditions where a growth belief and its emphasis on viewing negative relationship events as challenges and opportunities would seem especially beneficial. Thus, we left as an exploratory question whether the buffering effect of ITRs on how conflict predicts commitment would become stronger or weaker as disagreements remain unresolved after discussion.

STUDY 1

Method

PARTICIPANTS

Participants were 128 undergraduates who were currently involved in a heterosexual romantic relationship for at least 1 month. Participants received extra credit for completing the study. The sample was 41% Caucasian, 27% Hispanic, 16% Asian, 8% African American, and 8% who chose Other. The academic breakdown included 5% freshmen, 31% sophomores, 34% juniors, 17% seniors, and 3% who were beyond 4 years of college. The sample consisted mostly of individuals in serious dating relationships, with most participants exclusively dating (48%), nearly engaged (28%), or engaged (6%) and others casually dating (8%) or married (10%). More than two thirds of the sample were not married and not living with their partner (69%), with 12% not married and living with their partner, 10% married, and 9% in some other arrangement. Ninety-eight percent had never been divorced. The sample was biased toward women, with 110 women and 18 men. This was due in part to the composition of the undergraduate student body and also to the voluntary nature of participation.¹ The average age was 21 years old (SD = 3.48 years). The average length of relationship was 864 days (more than 2 years) (SD = 751 days).

PROCEDURE

Participants were first given a battery of questionnaires in a Latin square design to measure destiny and growth beliefs, baseline commitment, perceived con-

flict, various demographics, and a variety of other constructs included for other purposes. They were then given diary records to be completed after each disagreement over a period of 10 days. Disagreement was broadly defined as any interaction in which it was apparent to them that they and their partner disagreed. This definition was clarified by describing that a disagreement (a) involves at least some discussion (e.g., they and their partner talk about a difference in opinion); (b) involves a difference in opinion that includes some sort of interaction, even if only for a few seconds, and even if only verbal (e.g., on the telephone); and (c) is not necessarily a major conflict or fight, because we were equally interested in everyday minor differences of opinion as well as more major disagreements. We chose to define disagreement this way because we were primarily interested in examining peoples' responses to interactions involving conflict. We acknowledge that partners may have experienced disagreements that they did not discuss, but the focus of this study was about their responses to experiencing conflict as part of a couple. Each diary record assessed the time and length of discussion, the time the record was completed, commitment at the moment, and the disagreement topic (nine categories including "demonstrations of affection" and "leisure time interests and activities"). Participants selected as many topics as relevant. Perceived resolution of the conflict was assessed by the item, "To what extent do you feel closure or resolution about the issue you and your partner discussed?" from 1 (no closure) to 7 (complete closure). Immediately after the 10-day recording period, participants completed a follow-up questionnaire assessing accuracy of responses.

MEASURES

Implicit theories of relationships. The 22-item ITR scale (Knee et al., 2003) was included and is available from the first author. Eleven items measure destiny belief and 11 items measure growth belief. Responses are made on 7-point Likert-type scales with anchors of 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items are as follows: "Potential relationship partners are either compatible or they are not" (destiny) and "A successful relationship evolves through hard work and resolution of incompatibilities" (growth). As in previous research, destiny and growth beliefs were not significantly correlated with each other (r= –.16) or with sex of participant (rs = –.06 for destiny and –.04 for growth). Internal reliabilities were .82 and .73 for destiny and growth beliefs, respectively.

Perceived level of conflict. Level of conflict was assessed with 13 items concerning the extent of perceived agreement between partners in a variety of relationship domains, from 1 (*always agree*) to 7 (*always disagree*). Domains were selected from the dyadic consensus scale of the Dyadic Adjustment Scale (DAS) (Spanier, 1976; e.g., demonstrations of affection, matters of recreation, friends, amount of time spent together, making major decisions, and career decisions). Internal reliability was .79.

Commitment. Baseline commitment was assessed, along with an abbreviated version included in each diary record. Commitment at baseline was assessed with five items on 9-point Likert-type scales (Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991). The items emphasize both feelings of commitment and the likelihood of becoming less committed (e.g., "How likely is it that you will date someone other than your partner within the next year?"). Internal reliability in this study was .90.

Each diary record included an abbreviated version of the commitment scale. Items were selected based on their relevance to daily interactions and were modified with the phrase "right now." The items were "Right now, for how much longer do you want your relationship to last?" "Right now, do you feel committed to maintaining your relationship with your partner?" and "Right now, do you feel attached to your relationship with your partner?" These abbreviated diary items were averaged (on each record) such that higher scores reflected higher commitment.²

Follow-up questionnaire. Six items addressed the accuracy of responses on the diary records. All items were rated on 7-point scales and assessed (a) how difficult it was to record the disagreements, (b) how accurate participants believed their records were, (c) their best estimate of the percentage of disagreements that were not recorded, (d) how much keeping the diary records decreased their tendency to have disagreements, (e) how much it increased their tendency to have disagreements, and (f) how many hours per day they interacted with their partner.

Results and Discussion

PRELIMINARY ANALYSES

Participants recorded 908 disagreements throughout the 10-day period, with an average of 5.43 per person. Disagreements, on average, lasted 21.47 min (SD = 48). On average, 140 min (SD = 300) elapsed between the time the event occurred and the time it was actually recorded. Participants reported having disagreements about a wide variety of topics, including parents or family (7.5%); demonstrations of affection (10.4%); flirting (3.5%); amount of time spent together (16.5%); leisure time interests (16.3%); how money is spent (7.3%); aims, goals, and things believed to be important (11.5%); jealousy (8.7%); and several other topics (36.5%). Of importance, ITRs were not significantly correlated with the number of events recorded so it was not likely that one's beliefs caused one to define disagreements differently to begin with. ITRs were also not significantly correlated with length of disagreements, so it is not likely that one's beliefs led them to discuss conflicts for longer or shorter periods of time. Also, participants did not feel it was especially difficult to record the disagreements (M= 2.75, SD= 1.46), felt their diary records were fairly accurate (M = 5.71, SD = .94), estimated that they may not have recorded an average of 11.54% of the events, felt that keeping their records did not increase (M= 2.09, SD= 1.39) or decrease (M= 2.48, SD= 1.55) their tendency to have disagreements, and that on average, they interacted with their partner 6 to 9 hours per day.

TESTS OF HYPOTHESES

H1 was that commitment after disagreements would vary inversely with perception of conflict. H2 was that the strength of this association would depend on ITRs. The structure of the data was such that disagreements were nested within persons. Level 1 variables were event variables and were nested within Level 2 person variables.³ We were interested in examining the relation between level of conflict and commitment throughout the recorded events. Accordingly, a multilevel modeling approach using the PROC MIXED routine in SAS was employed (Littell, Milliken, Stroup, & Wolfinger, 1996; Singer, 1998). Coefficients were derived from a random coefficients model using restricted maximum likelihood estimation. This technique is conceptually similar to a "slopes as outcomes" approach where intercepts and slopes are estimated for each individual in a Level 1 model. Coefficients from the Level 1 model are then incorporated into the Level 2 model. Although some software packages (e.g., HLM; Raudenbush & Bryk, 2002) specify the model for each level separately, PROC MIXED employs a single equation that simultaneously models variation at multiple levels (Singer, 1998). For detailed description and examples of this approach using event-contingent diary data, see Nezlek (2001).

To examine both main effects and moderators, three separate equations were conducted: one to examine the associations of level of conflict, growth belief, destiny belief, and perceived resolution of conflict in predicting commitment; another to include these terms along with the two-way products of conflict, resolution, growth, and destiny; and a third to include these terms along with the three-way products of Conflict × Growth × Resolution and Conflict × Destiny × Resolution. The main effects model thus included the five fixed effects of an intercept and slopes for level of conflict, perceived resolution, growth belief, and destiny belief and two random effects for the intercept and the slope for perceived resolution. Results showed that, in accord with H1, level of conflict was generally associated with lower commitment after disagreements, F(1, 115) = 11.16, p < .001, pr = -.30.⁴ In addition, this general association was moderated by perceived resolution of the conflict such that the tendency for level of conflict to predict lower commitment became stronger to the degree that the issue remained unresolved, F(1, 777) = 6.82, p < .01, pr = .09. More important, a significant three-way interaction between level of conflict, perceived resolution, and growth belief emerged, F(1, 775) = 4.44, p < .05, pr = -.08.

In examining the direction of the three-way interaction, we followed procedures of Cohen, Cohen, Aiken, and West (2003) by deriving equations for the simple slope of conflict on commitment at high (+1 *SD*) and low (-1 *SD*) perceived resolution and high (+1 *SD*) and low (-1 *SD*) growth belief. Figure 1 provides a graph of these simple slopes. As shown, level of conflict was significantly related to lower commitment after disagreements, particularly when the disagreement remained unresolved and when one was lower in growth belief. Thus, conflict was associated with lower commitment when the issue remained unresolved, and less so for those who were higher in growth belief. The analogous three-way interaction with destiny belief was not significant.

It was possible that those higher in growth belief merely felt more commitment at baseline before their disagreements. Accordingly, we repeated the analyses controlling for baseline commitment by including it as another fixed effect in the model specification at each step. Baseline commitment was associated with commitment after disagreements, F(1, 114) = 101.48, p < .001, pr = .69. Of importance, the interaction between conflict, growth, and resolution remained significant controlling for baseline levels of commitment, F(1, 775) = 4.78, p <.05, pr = -.08. Thus, results were not due to those higher in growth feeling more committed in general. Furthermore, controlling for baseline commitment translates the criterion into change in commitment relative to how much change other participants experienced as a function of disagreements. Thus, it also could be inferred that relative to other participants, those higher in growth belief experienced less of a decline in commitment, particularly when the disagreement remained unresolved.

Overall, support was found for each hypothesis such that level of conflict was generally associated with less commitment after disagreements. This general association was stronger when the issue remained unresolved and when one was lower in growth belief. In other words, being higher in growth belief buffered against the association between conflict and commitment, especially when the issue remained unresolved. It also should be noted that destiny belief did not yield an analogous buff-

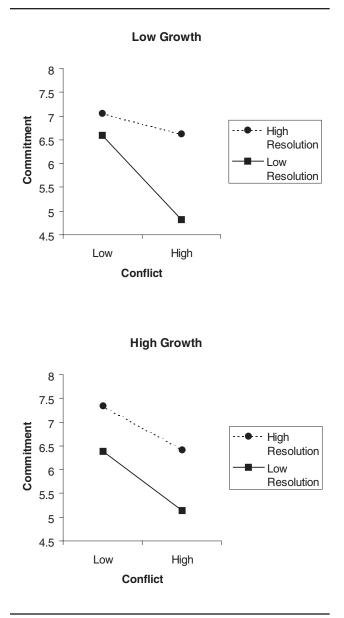


Figure 1 The association between level of conflict and commitment as a function of growth belief and perceived resolution of the conflict.

ering effect, presumably because it is less directly relevant to relationship maintenance and coping with conflict.

Our exploratory question also proved to be a useful one in that moderation by growth belief was stronger under negative relationship circumstances, in this case a lack of resolution of the disagreement. In this way, growth belief seems to buffer the impact of otherwise negative relationship events and conditions, facilitating the independence of such potentially adverse events from one's momentary feelings and perceptions of the relationship. In this case, having more conflict typically predicts how committed one feels to the relationship. However, among those who are higher in growth belief, these everyday disagreements have less impact on how committed one feels, especially when the issue remains unresolved and even after controlling for how committed one felt to begin with.

STUDY 2

One of the primary benefits of Study 1 was that it examined naturally occurring disagreements. However, because of the way we defined disagreements, it was possible that participants were recording as disagreements conversations that they otherwise would not consider problematic. In addition, there was some time lapse between when disagreements occurred and when they were recorded. Thus, "commitment after disagreement" may have more closely reflected "commitment while completing the record," which may have been anywhere from a few minutes to several hours after the actual disagreement. Thus, in Study 2, we examined similar processes in a more controlled laboratory setting where partners discussed more serious problems in the relationship, with commitment measured before and immediately after discussion. We were again interested in testing whether growth belief would be most beneficial under negative relationship circumstances. Thus, we again measured the degree to which the conflict remained unresolved. This time, however, we further reasoned that perceiving one's partner less favorably also could be a negative relationship circumstance under which the buffering properties of growth belief may emerge. Accordingly, we also measured the degree to which participants held generally favorable or unfavorable perceptions of their partner before the conflict.

Study 2 involved hypotheses similar to those in Study 1, with the major differences being the operationalization of conflict and the procedure that was employed to generate a brief conflict in a more controlled setting. Partners discussed a series of self-generated problems in their relationship, with commitment measured before and after the discussion. Thus, we expected that discussing problems in the relationship would generally be associated with lower commitment (H1). We also expected that ITRs would moderate this association such that the association between conflict and commitment would be relatively weaker with growth belief. This association was expected to be relatively stronger with destiny belief (H2). As we discovered in Study 1, ITRs may be particularly strong moderators under negative relationship circumstances, such as when the issue remains unresolved and when one has a less favorable view of the partner to begin with (Hypothesis 3 [H3]).

Method

PARTICIPANTS

Seventy-five heterosexual couples were recruited from the University of Houston and surrounding area through flyers and announcements. Two couples provided incomplete or inaccurate information and were not included in any analyses. Thus, the final sample consisted of 73 couples. Couples were paid \$30 for their participation.

Median annual income was \$40,000. More than half of the participants were not married and not living with their partner (53.8%), 22% were not married and living with their partner, 13% were married, and 11% were in some other arrangement. Ninety-three percent had never been divorced. Regarding ethnicity, 46% were Caucasian, 21% were African American, 15% were Asian, 12% were Hispanic, and 6% chose Other. The sample consisted of mostly serious dating relationships, with most participants being nearly engaged (35%), engaged (21%), or exclusively dating (26%) and others married (14%) or casually dating (1%). The average age was 23 years old. The average length of relationship was 771 days (about 2 years).

PROCEDURE

The study proceeded in two phases. Phase 1 involved completing a battery of questionnaires that were administered according to a Latin square design. The battery included various demographic questions, the 22-item ITR scale, as well as a baseline measure of commitment. Phase 2 involved discussing relationship issues. Each partner independently provided a topic that they perceived as a source of stress or disagreement in the relationship. Partners were then brought together to discuss the topics that each partner had generated. After a brief orientation to the procedure, partners were left alone for two 10-min sessions with the task of discussing each partner's chosen topic. The discussion was minimally structured in an attempt to encourage open discussion of authentic problems. The order of which partner's topic was discussed first was counterbalanced across couples such that half the time the man's issue was first and half the time the woman's issue was first. Each discussion proceeded for 10 min and was then interrupted by a knock on the door, at which time participants were told to switch topics. After the second discussion, participants completed a series of questionnaires regarding perceptions of the discussions and the relationship.

MEASURES

Implicit theories of relationships. The 22-item ITR scale was employed here, as described in Study 1. Internal reliabilities in this study were .84 and .75 for destiny and growth beliefs, respectively. As before, the beliefs were

not significantly correlated with each other (r = -.05). Sex was not significantly correlated with destiny belief; however, women tended to be somewhat higher in growth belief in this sample (r = -.26, p < .01). Sex was included in all analyses.

Commitment. Commitment was assessed before and after discussion with five items on 9-point Likert-type scales, as described in Study 1. Internal reliabilities were .87 and .91 before and after discussion, respectively.

Perceived resolution. The extent to which participants perceived resolution of the issues discussed was assessed with two items on the postinteraction questionnaire. Items were as follows: "To what extent do you feel you were able to come to an agreement about this issue today?" and "How likely are you to argue about this issue in the future?" The second item was reverse scored, and the items were averaged to form an index of perceived resolution. Internal reliability was .72.

View of partner. View of partner was assessed with 12 trait adjectives rated before discussion. Participants rated their partner on each adjective from 1 (*not at all characteristic*) to 7 (*very characteristic*). The mean of the 12 adjectives (after reverse scoring negative traits) was computed such that higher scores reflected a more positive view of one's partner. Internal reliability was .72. Sample items include affectionate, reliable, rude (reverse scored), and lazy (reverse scored).

Results and Discussion

Hypothesis 1 was that commitment would generally be lower after discussing problems. A 2 (sex) \times 2 (time) repeated-measures ANOVA was conducted on commitment before and after discussion. Sex was included as a within-subjects variable to control for the nonindependence of the couple data (Kashy & Kenny, 2000). Results revealed a significant association of time such that the general change in commitment was significant, F(1, 71) = 4.03, p < .05, pr = .23. Examination of mean commitment scores revealed that commitment was generally higher before discussing problems in the relationship (M=7.31, SD=1.13) than after (M=7.15, SD= 1.45). Thus, commitment appeared to be susceptible to changes as a function of the problem-discussion procedure employed in this study. Without a control group who did not discuss any problems, we cannot be certain that the decline was caused by the conflict, but the results are consistent with H1.

H2 was that ITRs would moderate the degree of change in commitment after discussing problems in the relationship. There were two levels of variables because each individual belonged to a dyad. Level 1 variables are individual-level variables and are nested within Level 2 couple variables. We were interested in controlling for the nonindependence of the data due to being part of a couple. Accordingly, a multilevel modeling approach using the PROC MIXED routine in SAS was used for all subsequent analyses with continuous variables that were measured at multiple levels (Littell et al., 1996; Singer, 1998). The advantages of multilevel modeling in the analysis of couple data have been described elsewhere (Gonzales & Griffin, 1999; Karney & Bradbury, 1997; Kenny, Kashy, & Bolger, 1998). We controlled for the nonindependence of romantic partners' data by specifying the nested structure of the data in the equations that were derived for each hypothesis. Coefficients were derived from a random coefficients model using restricted maximum likelihood estimation.

To examine both main effects and moderators, three separate equations were conducted: one to examine growth, destiny, perceived resolution of the problem, and view of partner in predicting postdiscussion commitment; another to include these terms along with the twoway products of growth, destiny, perceived resolution, and view of partner; and a third to include these terms along with the three-way products of growth, destiny, perceived resolution, and view of partner. Baseline commitment and sex were included in each model as control variables. The main effects model thus included the seven fixed effects of an intercept and slopes for sex, baseline commitment, growth, destiny, resolution, and view of partner and six random effects for the intercept and the five slopes (sex was not considered a random effect). The two-way and three-way product models were conducted in a similar manner by including the additional relevant product terms as fixed effects. (For specific SAS examples, see Singer, 1998).

Several findings emerged. First, in support of H2, growth belief was generally associated with higher commitment after discussion, F(1, 66) = 4.55, p < .05, pr = .25. Second, perception that the issue had been resolved was generally associated with higher commitment, F(1, 66) =9.36, p < .01, pr = .35. More important, these primary associations were qualified by the Resolution × Growth Belief interaction, F(1, 60) = 5.84, p < .05, pr = -.30, which was in turn qualified by the Resolution × Growth Belief × View of Partner interaction, F(1, 56) = 20.07, p < .001, pr = .51. In examining the direction of the three-way interaction, we followed procedures of Cohen et al. (2003) by deriving equations for the simple slope of conflict on commitment at high (+1 SD) and low (-1 SD) perceived resolution and high (+1 SD) and low (-1 SD) growth belief. Figure 2 provides a graph of these simple slopes.

As shown, when one was relatively lower in growth belief, one felt less committed when the conflict remained unresolved and when one already had a less favorable view of the partner. However, when one was relatively higher in growth belief, these otherwise adverse

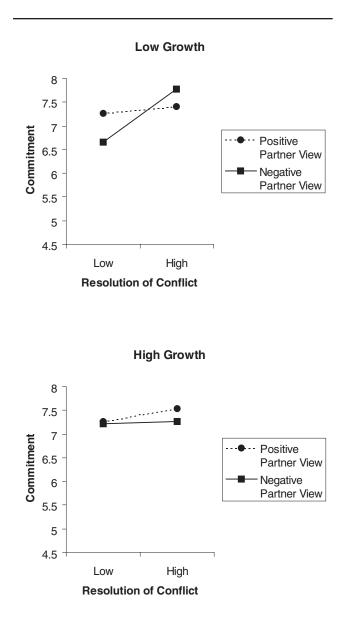


Figure 2 Commitment after conflict as a function of growth belief, perceived resolution, and view of partner.

circumstances were not associated with how committed one felt after the conflict. In this way, growth belief served as a buffer of circumstances that can otherwise make one feel less committed after having a conflict. Alternatively, resolution of the conflict was particularly relevant to commitment when lower in growth belief and when one had a less favorable view of the partner. When higher in growth belief, it did not matter whether the conflict had been resolved, and this was especially the case when one had a less favorable view of one's partner.

It is important to further examine why growth belief seems most beneficial under adverse relationship circumstances. Perhaps believing in growth makes one perceive resolution of conflict more readily. In other words, perhaps these individuals can remain committed because they feel that the discussion with their partner resolved the issue to a greater degree. To test this, the analysis was repeated with perceived resolution of the conflict (from the postdiscussion follow-up questionnaire) as the criterion. ITRs had no significant associations with perceived resolution, suggesting that growth belief did not simply make one feel that the issue had been resolved. Thus, it is not necessarily the perception of resolution that is most important to those who believe in growth. Instead, this finding suggests that those who believe in growth are assigning a somewhat different meaning to the experience of conflict. Rather than requiring resolution to feel good about the relationship, those who believe in growth seem to feel closer to (or less distant from) their partner following a disagreement. Although speculative, it is possible that for those who believe in growth, feeling free to discuss areas of stress or disagreement in the relationship allows them to feel closer to their partner and, thus, more committed to their relationship. For those who are relatively lower in growth belief, the experience of conflict may seem unsettling unless resolution is achieved. Those who believe in growth also may be more interested in nurturing the relationship rather than the outcome itself, suggesting perhaps a more intrinsic interest in the relationship. Indeed, preliminary research seems to suggest that growth belief is associated with having more intrinsic reasons for being in a relationship, and this may be particularly important when it comes to conflicts that are not resolved (Patrick & Knee, 2001).

Returning to the primary analysis, other results were significant as well. Specifically, the Resolution \times Perception of Partner interaction, F(1, 60) = 9.31, p < .01, pr = -.37, showed that the association between resolving conflict and feeling committed was relatively stronger when one held a negative view of one's partner before the discussion. In other words, feeling that the problem had been resolved was relatively more important when one started with a less positive view of one's partner. Surprisingly, a Destiny × Resolution × Perception of Partner interaction revealed that the Resolution × Perception of Partner interaction was relatively weaker with higher destiny belief, F(1, 56) = 4.74, p < .05, pr = .30. This was unexpected because if destiny belief served as a moderator, one would think it would be in a direction opposite of growth belief. However, this finding suggests that in some cases, destiny belief may have buffering properties as well, but for a different reason.

Overall, all three hypotheses received support in that discussing relationship problems with one's partner was generally associated with decreased commitment (H1). However, this reduction in commitment was lessened when one was higher in growth belief (H2). Finally, under conditions that typically have a negative impact on how one feels about the relationship, believing in growth served as a buffer against these potentially adverse circumstances. This buffering tendency was not limited only to discussing problems in the relationship. It was also evident under other potentially negative relationship conditions, including when one felt that the problem remained unresolved and when one had a less favorable view of one's partner to begin with (H3). Indeed, growth belief was a particularly strong moderator of the negative relation between conflict and commitment under these additional negative conditions.

However, it should be noted that whereas evidence emerged for growth belief as a buffer against adverse conditions, there was some evidence for destiny belief too. This is interesting given that past research has found that destiny belief is associated with denial and disengaging from relationship problems. On the surface, one would think that these would be maladaptive strategies for coping with conflict, and in the long run, perhaps they are. However, destiny and growth beliefs also share an optimistic perspective on relationships. By believing that potential partners are meant to be, destiny belief may imbue the relationship with a unique and special meaning, which may be beneficial under some negative relationship conditions as well. The benefits of viewing one's relationship in an idealistic manner have been demonstrated elsewhere by Murray and colleagues (e.g., Murray, Holmes, & Griffin, 1996). Thus, whereas the benefit of believing in growth may stem from how this belief guides interpretations and inferences about conflict, some benefit of believing in destiny may stem from perceiving that the relationship is unique, special, and meant to be. Indeed, research has shown that what may be particularly important in understanding how destiny belief moderates relationship processes is the degree to which one feels that one's current partner is indeed the right match (Franiuk et al., 2002; Knee et al., 2001).

GENERAL DISCUSSION

Within the ITRs framework, whether conflict is perceived as problematic and indicative of the quality of the relationship depends on the beliefs and goals one brings to the relationship. When one endorses the notion that relationships require maintenance and problems can be resolved, disagreements become opportunities for better understanding one's partner, improving the relationship, and becoming more interdependent.

Indeed, in the present research, ITRs (primarily growth belief) were found to moderate the association between experienced conflict and commitment in two studies employing rather different methodologies. Both studies found support for the notion that the buffering effect of growth belief was particularly strong under adverse relationship conditions. In Study 1, perceived level of conflict in the relationship was generally associated with lower commitment after disagreements, and this was especially the case when the issue remained unresolved. Of importance, this lowered commitment as a function of conflict and lack of resolution was less so for those who were higher in growth belief. In Study 2, growth belief buffered the tendency to feel less committed after a disagreement when one had a less favorable view of one's partner to begin with and when one felt that, despite the discussion, the problem remained unresolved.

Presumably, growth belief buffers the otherwise negative impact of conflict on quality because of the different meaning that is assigned to conflict. Whether potentially negative events will have a negative impact on the relationship depends in part on how those events are interpreted. When negative events occur and one is higher in growth belief, they are more likely to be viewed as routine and expected opportunities for increased understanding rather than pitfalls that cannot be overcome.

Study 2 also found support for the notion that the buffering effect of growth belief was particularly strong under adverse relationship conditions. Specifically, growth belief buffered the general decline in commitment more effectively when one had a less favorable view of one's partner to begin with and when one felt that, despite the discussion, the problem was left unresolved. When one starts off being less pleased with a partner and then feels that problems are left unresolved, it may not take much more to question one's commitment to the relationship. Believing in growth, however, buffers the impact of these otherwise negative conditions presumably because adversity is seen as a natural component of the growth process.

Another possible explanation for these findings deals with Rusbult's (1980, 1983) notion of relationship investment. For those who believe in growth, confronting and discussing a problem in the relationship may result in the experience of added investment, which according to Rusbult, also will lead to increased commitment to the relationship. Those who believe in growth feel less threatened by relationship problems and view such difficulties as opportunities for growth and improvement; thus, working through a conflict may increase investment because of the added time and emotional effort that goes into resolving the problem. After discussing relationship problems, these individuals may feel that they know their partner better or that the relationship has developed further, thus leading them to feel more invested in, and committed to, their relationship. An added benefit of growth belief may be that discussing problems can increase one's commitment, perhaps by increasing one's perceived investment.

The present findings offer several avenues for future research, including how partners respond to feedback about their relationship and their willingness to seek advice and help from others. A common example of feedback within the relationship is when one partner raises concerns about the relationship, ranging from relatively minor issues ("We don't do enough fun things together") to potentially more serious matters ("You don't really understand me"). Regardless of how serious the issue may appear on the surface, growth belief would likely promote less stable inferences about the relationship and a maintenance-driven perspective. So, when one's partner claims "You don't understand me," one who is higher in growth belief may infer that now is the time to attempt to better understand one's partner and that with enough effort and time, understanding will come. Indeed, we believe that this is one reason that growth belief was associated with relatively higher commitment as a function of conflict in the present studies.

These findings also may have implications for willingness to seek help when faced with relationship difficulties. Seeking help may seem particularly useful when higher in growth belief because one believes that relationship challenges can be overcome. Thus, relationship counseling, whether through professional services or friends and family, may seem more potentially fruitful when operating according to certain beliefs. Again, it may not be the actual utility of counseling or remedial help that is important but rather the way in which one's beliefs guide expectations and inferences about the likelihood of improvement in the face of problems. In this way, seeking help for a dying relationship may not always yield improved results, but regardless, one may be more likely to invite assistance when higher in growth belief.

This research is not without limitations. One limitation is the lack of a control group in Study 2 of people who did not discuss problems but simply reported their commitment to the relationship at two time points. Without a control group, we cannot infer that discussing problems actually caused commitment to be lower. Also, we do not yet know the extent to which the moderating effect of growth belief generalizes to other potentially negative relationship phenomena. From the present studies, we have evidence of a buffering effect for everyday disagreements, however minor they might be, and for relatively serious problems in the relationship that warrant more detailed discussion with one's partner. We also have evidence that the buffering effect of growth belief is particularly strong under more adverse conditions, including when one has a less favorable view of one's partner to begin with and when problems still seem unresolved. However, many generally negative relationship contexts and events remain to be studied.

An interesting, although unexpected, finding emerged in Study 2, whereby destiny belief yielded a buffering effect similar to growth belief. We speculate that belief in destiny can imbue one's relationship with uniqueness and value to the extent that one feels one has found the right partner. Under these conditions, believing in destiny may buffer against conflict in a manner analogous to growth belief, but for a different reason. Whereas growth belief is thought to buffer against conflict because of the meaning and interpretation that one assigns to disagreements and conflicts, destiny belief may buffer conflict because the belief that a relationship is meant to be may override the otherwise negative connotation of conflict (at least for relatively brief conflicts). This would certainly seem consistent with research that shows the importance of feeling that one's partner is a "good fit" for those who endorse a destiny belief (Franiuk et al., 2002). It also would be consistent with research on the benefits of general positive relationship perceptions and optimistic beliefs (e.g., Murray et al., 1996). Still, the potential buffering by destiny belief must be interpreted cautiously because no buffering effect of destiny belief was evident in Study 1, and based on existing theory, we would have expected the opposite.

Finally, it would be useful to manipulate ITRs, or at least induce temporary orientations toward evaluating the potential of relationships (analogous to destiny belief) and maintaining relationships (analogous to growth belief). This way, the causal role of ITRs in moderating relationship processes could be empirically tested. For example, research on implicit theories in other domains has shown that implicit theories can influence attributions, emotions, and behavior at both trait and state levels (see Dweck et al., 1995, for review). In particular, implicit theories of intelligence were recently linked to attributions and coping strategies in three studies (Hong, Chiu, Dweck, Lin, & Wan, 1999). This research revealed that implicit theories can be measured overtly but also can be induced situationally to influence attributions about one's performance and willingness to seek and accept help. We speculate that a similar process occurs with ITRs in which both overtly measured beliefs as well as induced orientations toward relationships can influence attributions for relationship events, inferences about relationship conflict, and willingness to seek help in response to relationship problems. Research along these lines would further elaborate the theoretical framework, and underlying process, of how ITRs influence or coincide with goals, inferences, and attributions in relationships.

NOTES

1. In a follow-up analysis, we controlled for sex and found that all results remain significant when sex of participant is controlled. In another follow-up analysis, we controlled for whether participants were married and found that all results remain significant.

2. Relationship satisfaction was initially included as another criterion. However, this variable did not exhibit significant change and implicit theories of relationships (ITRs) did not significantly buffer associations between conflict and the nonsignificant change. Reviewers felt that satisfaction and commitment were conceptually unique (and not comparable) constructs. Accordingly, we chose to discuss only commitment throughout the article. It is not clear why satisfaction di not display significant change; however, it is possible that satisfaction was a more global evaluation of the relationship as strong and stable and that this was more resistant to fluctuation by immediate circumstances.

3. It could be argued that disagreements were nested within days, which were nested within persons; however, day was not relevant here because people completed records without regard to day. Disagreements often occurred (and were recorded) at multiple times per day (or night) and thus day is not germane to the design (Nezlek, 2001).

4. Although some software packages (e.g., HLM) yield Beta coefficients, PROC MIXED yields unstandardized parameter estimates, along with *ts* or *F*s. Thus, *Fs* are reported here along with partial correlations to index the strength and direction of effect.

REFERENCES

- Berscheid, E., & Reis, H. T. (1998). Attraction and close relationships. In D. T. Gilbert, S. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (Vol. 2, 4th ed., pp. 193-281). Boston: McGraw-Hill.
- Bradbury, T. N., Fincham, F. D., & Beach, S. R. H. (2000). Research on the nature and determinants of marital satisfaction: A decade in review. *Journal of Marriage and the Family*, 62, 964-980.
- Bui, K. V., Peplau, L. A., & Hill, C. T. (1996). Testing the Rusbult model of relationship commitment and stability in a 15-year study of heterosexual couples. *Personality and Social Psychology Bulletin*, 22, 1244-1257.
- Cohen, J., Cohen, P., Aiken, L. S., & West, S. G. (2003). Applied multiple regression/correlation analysis for the behavioral sciences (3rd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Dweck, C. S., Chiu, C., & Hong, Y. (1995). Implicit theories and their role in judgments and reactions: A world from two perspectives. *Psychological Inquiry*, 6, 267-285.
- Fincham, F. D., & Beach, S. R. H. (1999). Conflict in marriage: Implications for working with couples. Annual Review of Psychology, 50, 47-77.
- Franiuk, R., Cohen, C., & Pomerantz, E. M. (2002). Implicit theories of relationships: Implications for relationship satisfaction and longevity. *Personal Relationships*, 9(4), 345-367.
- Gonzales, R., & Griffin, D. (1999). The correlational analysis of dyadlevel data in the distinguishable case. *Personal Relationships*, 6, 449-469.
- Holmes, J. G., & Murray, S. L. (1996). Conflict in close relationships. In E. T. Higgins & A. Kruglanski (Eds.), *Social psychology: Handbook* of basic principles (pp. 622-654). New York: Guilford.
- Hong, Y., Chiu, C., Dweck, C. S., Lin, D. M. S., & Wan, W. (1999). Implicit theories, attributions, and coping: A meaning system approach. *Journal of Personality and Social Psychology*, 77(3), 588-599.
- Karney, B. R., & Bradbury, T. N. (1997). Neuroticism, marital interaction, and the trajectory of marital satisfaction. *Journal of Personality and Social Psychology*, 72(5), 1075-1092.

- Kashy, D. A., & Kenny, D. A. (2000). The analysis of data from dyads and groups. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 451-477). New York: Cambridge University Press.
- Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In D. Gilbert, S. Fiske, & G. Lindzey (Eds.), *Handbook* of social psychology (Vol. 1, 4th ed., pp. 233-265). Boston: McGraw-Hill.
- Knee, C. R. (1998). Implicit theories of relationships: Assessment and prediction of romantic relationship initiation, coping, and longevity. *Journal of Personality and Social Psychology*, 74(2), 360-370.
- Knee, C. R., Nanayakkara, A., Vietor, N. A., Neighbors, C., & Patrick, H. (2001). Implicit theories of relationships: Who cares if romantic partners are less than ideal? *Personality and Social Psychology Bulletin*, 27(7), 808-819.
- Knee, C. R., Patrick, H., & Lonsbary, C. (2003). Implicit theories of relationships: Orientations toward evaluation and cultivation. *Per*sonality and Social Psychology Review, 7(1), 41-55.
- Littell, R. C., Milliken, G. A., Stroup, W. W., & Wolfinger, R. D. (1996). SAS system for mixed models. Cary, NC: SAS Institute Inc.
- Murray, S. L., Holmes, J. G., & Griffin, D. W. (1996). The benefits of positive illusions: Idealization and the construction of satisfaction in close relationships. *Journal of Personality and Social Psychology*, 70, 79-98.
- Nezlek, J. B. (2001). Multilevel random coefficient analyses of eventand interval-contingent data in social and personality psychology research. *Personality and Social Psychology Bulletin*, 27(7), 771-785.

- Patrick, H., & Knee, C. R. (2001, July). Implicit theories of relationships and relationship motivation: When feeling obligated isn't so bad. Paper presented at the meeting of the International Network on Personal Relationships/International Society for the Study of Personal Relationships, Prescott, AZ.
- Raudenbush, S. W., & Bryk, A. S. (2002). Hierarchical linear models: Applications and data analysis methods (3rd ed.). Thousand Oaks, CA: Sage.
- Rusbult, C. E. (1980). Commitment and satisfaction in romantic associations: A test of the investment model. *Journal of Experimental Social Psychology*, 16, 172-186.
- Rusbult, C. E. (1983). A longitudinal test of the investment model: The development (and deterioration) of satisfaction and commitment in heterosexual involvements. *Journal of Personality and Social Psychology*, 45, 101-117.
- Rusbult, C. E., Verette, J., Whitney, G. A., Slovik, L. F., & Lipkus, I. (1991). Accommodation processes in close relationships: Theory and preliminary empirical evidence. *Journal of Personality and Social Psychology*, 60(1), 53-78.
- Singer, J. D. (1998). Using SAS PROC MIXED to fit multilevel models, hierarchical models, and individual growth models. *Journal of Edu*cational and Behavioral Statistics, 24, 323-355.
- Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family*, 38, 15-28.

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