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# Committed to us: Predicting relationship closeness following nonmarital romantic relationship breakup

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## Abstract

There is little research on the nature of relationships between individuals following the termination of a nonmarital romantic relationship. It is largely unknown to what extent former romantic partners remain close following breakup. The present research used the Investment Model of Commitment Processes, assessed prior to romantic breakup, to examine the closeness of post-breakup relationships. Results obtained from two waves of data collected from 143 young adults involved in romantic relationships at Time 1 and experiencing a romantic breakup by Time 2 indicated that pre-breakup romantic commitment mediated the effects of pre-breakup romantic satisfaction, investments, and alternatives on post-breakup closeness, with higher pre-breakup commitment predicting greater post-breakup closeness. Implications of these findings for understanding the underlying dynamics of ongoing interpersonal relationships and directions for future research are discussed.

## Keywords

Ex-romantic partners, interpersonal processes, Investment Model, post-dating relationships, relationship commitment, relationship dissolution

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Romantic relationships are a central aspect of human life and they have the potential to fulfill individuals' fundamental needs for belonging (Baumeister & Leary, 1995). Unfortunately, maintaining romantic relationships can be challenging and dissolution can occur, resulting in a host of possible negative outcomes, such as increased felt insecurity (Davis, Shaver, & Vernon, 2003), increased emotional distress (Frazier & Cook, 1993; Sbarra & Emery, 2005), and poorer physical health (Fine & Harvey, 2006). An assumption underlying models of relationship maintenance is that following relationship dissolution there is termination of contact and the prospect of a continued relationship in some form is rarely considered (Agnew, Arriaga, & Wilson, 2008). "We can still be friends" is an oft-used phrase at the cessation of a romantic relationship; however, there is little research on the nature of relationships between individuals following the termination of a romantic relationship. It is largely unknown, for example, the extent to which former couple members interact following breakup or the relative closeness of the post-breakup relationship.

Given the fundamental need to belong (Baumeister & Leary, 1995), it is possible that individuals' might transition into less interdependent forms of relationships (i.e., friendships) in order to avoid or dampen the impact of negative outcomes arising from romantic dissolution. Of course, such a transition would likely be a function of the nature of the relationship between individuals prior to a termination of a given relationship type (e.g., end of a romance). The present research sought to assess and predict the quality of post-breakup relationships. Using the Investment Model of Commitment Processes as a theoretical framework (Rusbult, Agnew, & Arriaga, 2012; Rusbult, Martz, & Agnew, 1998), we examined the general nature of such relationships as well as how characteristics of the romantic relationship prior to a breakup might serve to predict the relative closeness of relations after the breakup.

### *Post-dissolution relationships*

Both laypeople and relationship scientists may assume that when romantic relationships end, commitment no longer exists and that contact ceases between former partners. Such an assumption is informed by stage models of relationship development that often label termination of contact as the last stage of a relationship (Knapp, 1984). However, romances do not always end "once and for all." Giordano, Manning, Longmore, and Flanigan (2009) discuss the notion of "relationship churning," in which romantic relationship partners breakup and subsequently reunite. Similarly, Halpern-Meehin, Manning, Giordano, and Longmore (2010) found that nearly half of their sample of young adults reported at least one instance of romantic breakup followed by reconciliation. Moreover, Koenig Kellas, Bean, Cunningham, and Cheng (2008) investigated the turning points and trajectories in post-dissolution relationship adjustment among former partners, which suggests the importance of further exploring the processes involved in the ebbing and flowing of close relationships.

Beyond reconciliation of romantic connections, however, continued friendship and contact of a nonsexual nature often exists between former romantic partners. For example, Wilmot, Carbaugh, and Baxter (1985) reported that 61% of individuals who experienced breakup remained friends with their former romantic partner. Past research

is limited, but it has identified several predictors of whether people will remain friends after romantic breakup. Post-breakup friendship is more likely when the couple members who broke up were friends before romance (Metts, Cupach, & Bejlovec, 1989), if the friendship was socially supported and resources were provided by the ex-partner (Busboom, Collins, Givertz, & Levin, 2002), if the breakup was mutual (Hill, Rubin, & Peplau, 1976), if their former partner was perceived as more desirable than possible alternative partners (Banks, Altendorf, Greene, & Cody, 1987), and if the relationship was higher in romantic satisfaction prior to breakup (Bullock, Hackathorn, Clark, & Mattingly, 2011). Related to the current research, Lannutti and Cameron (2002) investigated post-dissolution relationships in terms of contact, intimacy, and satisfaction. The current research couches these past findings within a well-regarded and much tested theoretical framework that can further our understanding of critical factors involved in influencing post-breakup relations.

### *The Investment Model of Commitment Processes*

The Investment Model of Commitment Processes (Rusbult, 1983; Rusbult et al., 2012) focuses on the construct of psychological commitment, a central process in close relationships theory and research. Commitment is characterized by an intent to remain in a relationship, psychological attachment to a partner, and a long-term orientation toward the partnership (Arriaga & Agnew, 2001). According to the Investment Model, an individual's level of commitment to a current relationship is influenced by three factors: the amount of satisfaction experienced from the relationship, the quality of the available alternatives to that relationship, and the amount of investment in the relationship. Satisfaction is a function of the outcomes a partner gains from a relationship compared to personal expectations (or comparison level) of what is acceptable. If outcomes are equal to or greater than expectations, a person will be relatively satisfied with the relationship and will be committed to it. Alternatives to a relationship may include other potential relationship partners, other people in general (e.g., hanging out with a group of friends rather than one's current partner), or preferring to have no relationship at all. Commitment to a given relationship will be decreased if an individual perceives that better outcomes are available elsewhere. Finally, the size of one's investments in a relationship strengthens commitment. Investments can be both tangible (e.g., material possessions, money, and friends) and intangible (e.g., time, identity, and future plans) resources attached to a partnership, resources that would be lost if the relationship was to end (Goodfriend & Agnew, 2008). Greater commitment to a relationship results from greater satisfaction, fewer alternatives, and more investment in the relationship (Rusbult et al., 1998).

The Investment Model has been used to predict commitment and relationship stability across a range of relationship types, including nonexclusive dating, exclusive dating, and married samples. In a meta-analysis of work utilizing the Investment Model, Le and Agnew (2003) found no significant differences in the model's ability to predict commitment between relationship types. The association between the bases of the Investment Model (i.e., satisfaction, alternatives, and investments) and various outcomes (e.g., stay-leave behavior, forgiveness, and willingness to sacrifice) is mediated by commitment and commitment has been shown to be a more proximal predictor of outcomes

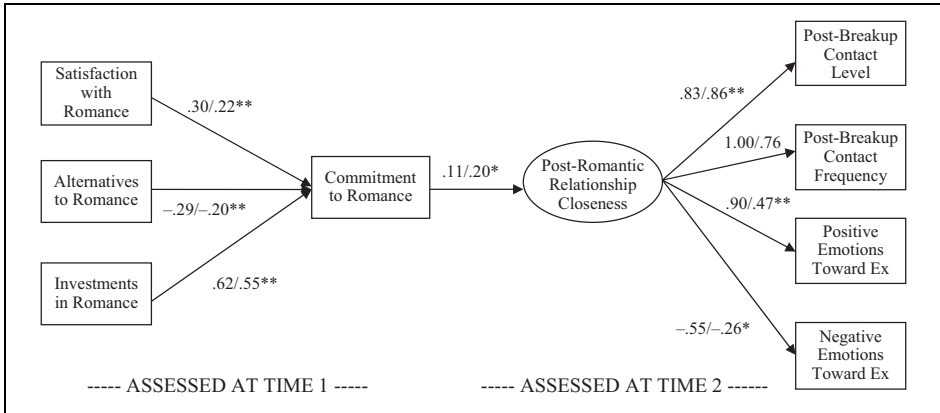
of interest than the bases (Rusbult, 1983; Vanderdrift, Agnew, & Wilson, 2009). However, there is no extant literature with respect to data on relationships between former romantic partners following their breakup from an Investment Model perspective.

### *Predicting post-romantic relationship closeness*

The extant literature has predominantly defined relationship stability as either being together or terminated, with no middle ground (Karney, Bradbury, & Johnson, 1999). Given that terminated romantic relationships are often redefined as friendships (Schneider & Kenny, 2000), the dichotomous distinction of being together versus broken up masks variations inherent in post-dissolution relationships. Former romantic partners might not want to end the friendship that they developed during the romantic relationship, as friendships are an important component of romantic relationships (Vanderdrift, Wilson, & Agnew, 2013). Thus, we propose that post-dissolution romantic relationships can be conceptualized in varying degrees of closeness. Specifically, we posit that after breakup, former romantic partners may enter a subsequent relationship type characterized by less interdependence (e.g., friendship; cf. Agnew & VanderDrift, in press) or by complete independence (no relationship at all).

In characterizing the post-dissolution relationship, we wanted to expand on the dichotomous measure offered by Metts and colleagues (1989) who characterized post-dissolution relationships as either friendship or no friendship. Instead, we wanted to create a latent construct of post-dissolution relationship characterized in terms of general closeness. We focused on aspects of post-dissolution relationships highlighted in past research (Lannutti & Cameron, 2002) and that are integral to the subjective sense of relational closeness (Kessen, Ortony, & Berscheid, 1991). These aspects were the frequency and level of contact in the post-dissolution relationship and the general emotions generated when thinking about the former romantic partner. The frequency of interpersonal communication has been found to have significant influence on maintenance and longevity of relationships via the sustenance of feelings of closeness (e.g., Gottman, 1994). Similar to the frequency of interpersonal contact, the level of contact in terms of a redefinition of relationship status between former partners might also serve to maintain intimacy and alleviate breakup distress by serving to salvage at least some of the closeness developed during a romance (Foley & Fraser, 1998; Simpson, 1987). Furthermore, post-dissolution relationships characterized by the generation of more positive and less negative emotions would be considered closer in nature than those generating more negative and less positive emotions (e.g., Attridge, 2013; Kessen et al., 1991).

We also sought to assess predictors of post-romantic relationship closeness by harnessing the variables within the Investment Model. We propose that satisfaction, alternatives, investments, and commitment assessed during an ongoing romance will predict the extent to which, following dissolution, former romantic partners redefine their relationship and are close to their former romantic partners. Although a romance may dissolve because romantic needs are no longer fulfilled, this does not mean that former relationship partners are unable to fulfill other kinds of needs (Agnew et al., 2008). This follows from Interdependence Theory that identifies and details the function of need fulfillment in relationships (Rusbult & Van Lange, 2003; Vanderdrift & Agnew, 2012).



**Figure 1.** Mediation model showing the direct effects of satisfaction, alternatives, and investments on commitment and commitment on post-romantic relationship closeness. Unstandardized coefficients are on the left and standardized coefficients are on the right. \* $p < .05$ ; \*\* $p < .001$ .

Moreover, since commitment is defined as a long-term orientation, psychological attachment, and intention to remain in a relationship, when one is involved and committed to a romantic partner, cognitive interdependence develops whereby partners evidence a pluralistic mental representation of self-in-relationship (Agnew, Van Lange, Rusbult, & Langston, 1998). Given such interdependence, it is reasonable to suggest that the mental links that represent closeness between romantic partners do not completely vanish in the face of a breakup (Agnew, 2000). Higher commitment to an ongoing romantic relationship may predict that, downstream, instead of transitioning to a nonrelationship with complete termination of contact following romantic breakup, ex-partners remain close, at least on some level.

### *Hypotheses guiding the current research*

We wanted to test a model that specified the association between pre-breakup relationship quality and post-breakup relationship closeness. More specifically, we hypothesized concerning the mediating role of pre-breakup relationship commitment and the theorized bases of commitment (as delineated in the Investment Model) as shown in Figure 1. Consistent with the Investment Model, greater satisfaction with one's romantic partner, fewer alternatives, and greater investments in the romance should predict greater romantic commitment. Among those individuals whose romantic relationships eventually ended, we hypothesized that those whose romantic relationships had been characterized as more positive (i.e., greater satisfaction, fewer alternatives, and greater investments) would be in a closer post-romantic breakup relationship with their former romantic partner (as opposed to having no or little contact) and this would be mediated by the level of romantic commitment assessed prior to breakup.

In the relationship commitment literature, the tradition has been to measure relationship dissolution as a dichotomous end state (i.e., intact or dissolved; cf. Agnew,

Arriaga, & Goodfriend, 2006; see also Le, Smoak, Agnew, Korn, & Mutso, 2010; VanderDrift et al., 2009). In addition to simply dichotomizing a Time  $N + 1$  relationship as present or absent, in the current research, we examined it in terms of how close the relationship now was, using a composite latent measure of post-romantic relationship closeness (emphasizing post-breakup contact level, post-breakup contact frequency, positive emotions toward ex-partner, and negative emotions toward ex-partner).

## Method

### *Participants and design*

Participants were recruited as part of the Project on Partner Dynamics (POPD). POPD is a longitudinal study that examines relationship dynamics within the heterosexual involvements of men and women of reproductive age (between 18 and 30 years old) at risk for human immunodeficiency virus infection. The overall objective of the project is to improve understanding of the influence of relationship dynamics on sexual risk perceptions, intentions, and behaviors. Participants were recruited from various locations in a lower socioeconomic district of a major U.S. metropolitan area (East Los Angeles, California), including public and community health centers, and completed four in-person interviews at 4-month intervals over the course of 1 year. At each interview, the participants provided data regarding all sexual relationships in which they engaged over the previous 4 months. For the current study, for each participant, we randomly selected one relationship that was defined by the participant as a romantic relationship (i.e., self-reported as dating casually [49%], dating exclusively [46%], or engaged [5%]) and which subsequently was reported to have ended by the next interview; this yielded 143 relationships. When participants reported that they broke up from this relationship, they were directed to answer questions regarding their breakup. Data from the immediate time point prior to breakup were used to index the pre-breakup variables.

Participants' ages ranged from 18 to 30 years ( $M = 23.09$ ,  $SD = 3.55$ ; male = 50%). With regard to racial/ethnic composition, the sample was composed of approximately equivalent numbers of participants who identified as White, Black, and Hispanic (32%, 22%, and 27%, respectively, with 19% self-identifying as "other").

### *Measures*

*Romantic relationship quality at Time 1 (T1).* Participants completed the Investment Model Scale (IMS; Rusbult et al., 1998) to assess the quality of their romantic involvement prior to breakup. This scale has four subscales, measuring satisfaction with, alternatives to, investment in, and commitment to their romance. The satisfaction, alternatives, and investment subscales each contain 5 items, and the commitment subscale contains 7, each of which is assessed on a 9-point scale ranging from 0 (*strongly disagree*) to 8 (*strongly agree*). These items included "I feel satisfied with our relationship," to tap satisfaction, "My alternatives are attractive to me (dating another, spending time with friends or on my own, etc.)," to tap alternatives, "I feel very involved in our relationship—like I have put a great deal into it," to tap investment, and "I am committed to

maintaining my relationship with my partner,” to tap commitment. Consistent with the past findings of the IMS (Rusbult et al., 1998), the internal consistency of each scale was high (SAT:  $\alpha = .87$ ; ALT:  $\alpha = .76$ ; INV:  $\alpha = .88$ ; COM:  $\alpha = .95$ ). Thus, items assessing each Investment Model construct were averaged and the averaged measures were used in the analyses.

*Post-romantic relationship closeness at Time 2 (T2).* Four variables were used to measure the latent construct of post-romantic relationship closeness: (1) post-romantic breakup relationship contact level, (2) post-romantic breakup contact frequency, (3) post-romantic positive emotion, and (4) post-romantic negative emotion. Post-romantic breakup relationship contact level was measured with a single question: “Currently, how would you describe the status of your relationship with this person?” (1 = *no relationship at all*, 2 = *acquaintances*, 3 = *friends*, 4 = *close friends*, and 5 = *best friends*). Post-romantic breakup contact frequency was measured by the question, “Currently, do you have any contact with [Partner Name]? (Contact might include seeing the person, talking on the phone or exchanging emails)” (0 = *no contact at all*, 1 = *yes, but less than once a month*, 2 = *yes, about once a month*, 3 = *yes, about once a week*, 4 = *yes, about once a day*, and 5 = *yes, more than once a day*). Positive emotions toward their ex-partner were measured by the question, “To what extent do you experience positive emotions when you think of [Partner Name] now?” (0 = *not at all* and 8 = *completely*). Finally, negative emotions toward their ex-partner were measured by the question, “To what extent do you experience negative emotions when you think of [Partner Name] now?” (0 = *not at all* and 8 = *completely*). When considered together, these four measures evidenced reasonable reliability ( $\alpha = .70$ ).

We also asked participants at T2 to answer two questions regarding the perceived likelihood and desire for romantic reunification. Post-romantic breakup reunification likelihood was measured as follows: “What is the likelihood that you will reunite with [Partner Name] in a romantic relationship at any point in the future?” (with respondents asked to provide a percentage likelihood between 0 and 100). Post-breakup reunification desire was measured as follows: “On a scale from 0 to 10, how much would you like to reunite with [Partner Name] in a romantic relationship at any point in the future?” (0 = *absolutely not* and 10 = *definitely*). We conducted moderator analyses with these items, both individually and together as a composite scale ( $r = .67, p < .001$ ), to determine if they significantly moderate the obtained association between T1 romantic commitment and T2 post-romantic relationship closeness.

Finally, participants answered demographic questions about themselves, their partner, and the relationship, including questions about age, gender, race/ethnicity, relationship duration as well as who initiated the breakup.

### *Analytic strategy*

We used a structural equation modeling (SEM) approach to provide more precise evaluations of the relations among Investment Model variables and post-breakup relationship variables. SEM allows researchers to a priori determine specific patterns of structural equations that can be empirically tested for adequacy and plausibility (Kline,



2005). To evaluate model fit, criteria and cutoffs were selected a priori. In addition to model  $\chi^2$ , comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) were used. For CFI, values of .90 or greater reflect good fit of the specified model to the data. For RMSEA, values of .05 and lower reflect good fit and for SRMR, values of .08 and lower reflect good fit (Hu & Bentler, 1999). Furthermore, we utilized a prospective approach to reduce recall bias and provide a clearer indication of how pre-breakup romantic relationship quality predicts post-breakup relationship closeness.

## Results

We began by conducting an exploratory factor analysis to examine the loadings of the four post-breakup measures on the hypothesized latent construct of post-romantic relationship closeness. We specified the measurement component of the construct of post-romantic relationship closeness using our four observed indicators (post-romantic breakup contact level, contact frequency, positive emotion, and negative emotion). Results revealed that a one-factor solution best fit the data, with only one factor having an eigenvalue greater than 1 (first factor eigenvalue = 2.11; 52.69% variance explained). Analysis of a scree plot also supported the presence of only one factor. We then conducted a confirmatory factor analysis of the same variables. A one-factor model provided a good fit to the data:  $\chi^2(1) = 3.45, p = .06$ ; CFI = .98; RMSEA = .13; and SRMR = .03, indicating that the 4 items posited to tap the level of post-romantic closeness were being driven by a single latent construct. We also tested an alternative two-factor model in which we allowed the two post-breakup contact variables and the two post-breakup emotion variables to drive two separate latent post-breakup closeness measures. This two-factor model did not provide a better fit to the data, further supporting a one-factor solution (Loehlin, 1992; MacCallum, Wegener, Uchino, & Fabrigar, 1993).

Next, to test the overall hypothesized model shown in Figure 1, SEM was conducted using IBM AMOS 21. A maximum likelihood method was used to estimate path weights and factor loadings. Descriptive statistics are shown in Table 1 and correlations among all variables are shown in Table 2. To set the metric for the post-romantic relationship closeness latent factor, we constrained the factor loading of post-breakup contact frequency to be one, and the other factor loadings were freely estimated. We also added the residual covariance between positive and negative emotions toward the ex-partner given their conceptual overlap and high correlation ( $r = -.31, p < .001$ ). The model described in Figure 1 was specified and, following from past research using SEM on the Investment Model, observed scale mean indicators of satisfaction, alternatives, investments, and commitment were used as measures (e.g., Davis, Le, & Coy, 2011; Macher, 2013). We used observed indicators instead of latent variables to assess satisfaction, alternatives, investments, and commitment in order to maximize the power of our model (Kline, 2005). Paths from satisfaction, alternatives, and investments to romantic commitment and from romantic commitment to post-romantic relationship closeness were freely estimated and satisfaction, alternatives, and investments were left to covary.

We performed a path analysis to examine the indirect effects (as mediated by commitment) of pre-breakup Investment Model measures (i.e., satisfaction,

**Table 1.** Descriptive statistics of study variables.

| Variable             | Mean | SD   | Min | Max |
|----------------------|------|------|-----|-----|
| T1 satisfaction      | 4.79 | 1.58 | 0   | 8   |
| T1 alternatives      | 5.47 | 1.48 | 1   | 8   |
| T1 investments       | 3.40 | 1.94 | 0   | 8   |
| T1 commitment        | 4.02 | 2.17 | 0   | 8   |
| T2 contact level     | 2.38 | 1.18 | 1   | 5   |
| T2 contact frequency | 1.80 | 1.61 | 0   | 5   |
| T2 positive emotions | 3.48 | 2.35 | 0   | 8   |
| T2 negative emotions | 3.59 | 2.54 | 0   | 8   |

Note. T1 = Time 1, assessed while romantic relationship intact; T2 = Time 2, assessed after reported romantic breakup.

**Table 2.** Correlations among study variables.

| Variable                | 1      | 2      | 3     | 4     | 5      | 6     | 7      | 8 |
|-------------------------|--------|--------|-------|-------|--------|-------|--------|---|
| 1. T1 satisfaction      | —      |        |       |       |        |       |        |   |
| 2. T1 alternatives      | -.23** | —      |       |       |        |       |        |   |
| 3. T1 investments       | .38**  | -.35** | —     |       |        |       |        |   |
| 4. T1 commitment        | .47**  | -.44** | .71** | —     |        |       |        |   |
| 5. T2 contact level     | .07    | -.07   | .07   | .14   | —      |       |        |   |
| 6. T2 contact frequency | .10    | -.12   | .22** | .24** | .65**  | —     |        |   |
| 7. T2 positive emotions | .15    | -.05   | .05   | .09   | .40**  | .35** | —      |   |
| 8. T2 negative emotions | -.03   | -.20*  | .26** | .27** | -.28** | -.13  | -.32** | — |

\* $p < .05$ ; \*\* $p < .001$ .

alternatives, and investments) on our latent construct of post-romantic relationship closeness, testing the mediation model shown in Figure 1. The model provided an adequate fit to the data,  $\chi^2(16) = 38.11$ ,  $p < .001$ ; CFI = .93; RMSEA = .09; and SRMR = .09. As expected, individuals with greater satisfaction, lower alternatives, and greater investments in their romantic relationship reported greater romantic commitment to their partners when they were still involved in the romance at T1. More importantly with respect to the current hypotheses, romantic commitment was found to mediate the effects of these bases on later closeness, with higher levels of pre-breakup commitment at T1 significantly predicting higher levels of post-romantic relationship closeness at T2. An alternate model allowing for direct effects of the three bases of romantic commitment on post-romantic relationship closeness yielded nonsignificant paths for each.

We also tested a model that added time since breakup ( $M_{\text{days}} = 87.07$ ,  $SD_{\text{days}} = 87.80$ ) as a control in our proposed model. The overall model fit the data well,  $\chi^2(23) = 39.28$ ,  $p = .02$ ; CFI = .94; RMSEA = .07; and SRMR = .08; all previous associations in the model remained significant.

We tested a model that added breakup initiation status (0 = *self-initiated* and 1 = *partner-initiated*) as a predictor of the latent variable of post-romantic relationship

closeness. The overall model fit adequately,  $\chi^2(23) = 41.37$ ,  $p = .01$ ; CFI = .94; RMSEA = .08; and SRMR = .09; all previous associations in the model remained significant. Breakup initiation status did not significantly predict post-romantic relationship closeness,  $b = .29$ ,  $p = .28$ . Individuals did not perceive any less post-romantic relationship closeness regardless whether or not they initiated the breakup.

Finally, we tested separate models that added reunification likelihood ( $M = 19.87$ ,  $SD = 26.13$ ), reunification desire ( $M = 3.03$ ,  $SD = 3.10$ ), as well as a composite of these two reunification variables, and their respective interactions with T1 romantic commitment to determine if likely/desired reunification moderated the effect of T1 commitment on T2 post-romantic relationship closeness. The interactions between the reunification variables and commitment (i.e., likelihood,  $b = .001$ ,  $p = .99$ ; desire,  $b = .02$ ,  $p = .31$ ; composite,  $b = .04$ ,  $p = .50$ ) on closeness were not significant. Thus, regardless of how much or how little individuals perceived the likelihood or desire to reunite romantically with their former partners, there remained a significant positive association between pre-breakup romantic commitment and post-breakup relationship closeness. Taken together, these results support our hypothesized model.

## Discussion

Despite the popularity of the Investment Model (Rusbult, 1980, 1983) and its application to different relational contexts, no research to date has investigated how it can be applied to understand post-breakup relationships between former romantic partners. In the current research, we present empirical evidence for a model of commitment with its antecedents prior to breakup associated with a latent construct of post-romantic relationship closeness. We also extend the generalizability of the phenomenon of post-breakup relationships to populations beyond college students. Given the longitudinal nature of our design, we can rule out biased recall of past romantic satisfaction, alternatives, investments, and commitment that could occur following a romantic breakup with use of a cross-sectional design. Our results suggest that Investment Model variables assessed during an ongoing romantic involvement can predict the transition to a post-breakup relationship of a particular level of closeness.

Why do some former romantic relationships continue with some degree of interdependence while others are wholly terminated? Findings from the current study support the idea that higher commitment in the romantic relationship prior to breakup can be redefined into a relationship that is closer post-breakup. Romantic commitment prior to breakup mediated the effects of romantic satisfaction, investments, and alternatives on post-romantic relationship closeness. To the extent that former partners are able to provide valuable resources that fulfill needs, the relationship is likely to be maintained with some degree of closeness (Le & Agnew, 2001).

It is possible that some individuals who broke up with their partners had some form of lingering romantic attachment to the former romantic relationship (Schneider & Kenny, 2000) and that this was captured by the measures used to assess our latent construct of closeness. This would not be entirely surprising, given that the maximum time interval between actual breakup and time of report is 4 months. However, level of romantic reunification likelihood or reunification desire did not moderate the influence of pre-

breakup commitment on post-romantic relationship closeness. Moreover, breakup initiation status also did not predict post-romantic relationship closeness. Notwithstanding these results, it would be informative in future research to delineate factors that lead people to just remain friends after breakup versus rekindle their romantic relationship with their former partners.

In keeping with our examination of post-breakup relationships using the Investment Model, prior research has found that individuals who were satisfied in their prior romantic relationship were more likely to remain friends with their former partners after breakup (Bullock et al., 2011). Moreover, an interesting finding that emerged from the current study was the strength of investments in predicting commitment for people who broke up later, especially when compared with a meta-analytic review that found that satisfaction was more predictive of commitment compared to investments or quality of alternatives (Le & Agnew, 2003). With investments being resources tied to a relationship (e.g., self-disclosures and shared social networks), they have the ability to serve as both rewards and a grounding function, both during and after a romance has ended. Indeed, individuals who received more resources from former partners and have supportive social networks have been shown to experience higher quality post-breakup friendships (Busboom et al., 2002). Furthermore, individuals who had more future plans with their ex-partners perceive greater likelihood of reunification and were less likely to be dating a new partner after breakup (Goodfriend & Agnew, 2008). This suggests that individuals who invested heavily in their romances are particularly inclined to try to maintain a relationship with their former partner as they continue to be perceived as a valuable source of resources. Taken together, even though satisfaction and investments can be viewed as barriers to ending a romantic relationship, in the case of a breakup, such loss can be averted or minimized by maintaining a relationship characterized by comparatively less interdependence instead of a complete termination of contact.

Most importantly, commitment to the romance was a crucial determinant of post-romantic relationship closeness. Commitment includes conative, cognitive, and affective components (Arriaga & Agnew, 2001). The conative component captures the motivation to continue in the relationship; the cognitive component is the long-term orientation to be involved in the relationship; and the affective component is psychological attachment to a given partner. Since commitment is the subjective state of dependence that individuals experience regarding their relationship (Agnew et al., 1998), it is reasonable to suggest that after a breakup, individuals no longer think of romantic concerns in defining their relationship with their ex-partner. However, higher commitment prior to breakup could contribute to ambivalent feelings about the breakup, leading individuals to be more inclined to remain close and maintain relations of a different kind with their former partners, one characterized by less interdependence.

Just as it may be difficult for romantic feelings to completely disappear following breakup, it is possible that friendship feelings that existed during the romantic relationship (Vanderdrift et al., 2013) persist in the redefined relationship (Schneider & Kenny, 2000). Former partners remaining close might hamper recovery and prolong emotional distress from the breakup. It could also influence relationships with new romantic partners if ex-partners are construed as a desirable alternative (Spielmann, Joel, MacDonald, & Kogan, 2012).

Finally, models of relationship processes are often used exclusively to describe processes within relationships and often do not describe transitions in relationship type. The current research shows the ability of the Investment Model to predict and describe how commitment in a previous romantic relationship is associated with closeness after the romantic relationship has ended. Furthermore, the current findings emphasize continuity in relationships characterized by differing levels of interdependence. To the extent that two people are committed to each other, a successful relationship need not be defined forever more as being romantic in nature. Although the romantic elements of a relationship may end, clearly members of a dyad often continue to relate in close ways, albeit in a different form.

### *Limitations and future directions*

Although the results presented here were consistent with the hypotheses, they should be interpreted with care. Our current analyses only reflect the associations among Investment Model characteristics and post-romantic relationship closeness. Given that we did not collect data as to the precipitating event(s) that caused the romantic breakup, we cannot speculate as to how and why the breakup occurred, which may have an important influence on post-romantic relationship closeness (Vangelisti, 2006). More comprehensive measures of breakup and post-breakup relationships (e.g., friendship satisfaction, being in a new romantic relationship, and availability of alternatives) may better assess processes and factors regarding why ex-partners remain friends after breakup. In line with the current findings, future research could include measures of friendship investments to see if they are similar in terms of value and dimension (e.g., tangible or intangible) compared to those present in the prior romantic relationship. This would shed light on the question as to whether and which investments are perceived as lost when relationships end. Further research could also assess individual differences, and interactions between individual differences and the Investment Model constructs, in predicting close post-breakup relationships.

It is also important to note that the current model testing used a sample of young adults from a lower socioeconomic environment in a major metropolitan area of the U.S., who are at elevated risk for contracting sexually transmitted conditions (e.g., had more than one sexual partner in the past year). Without data from other types of samples, it is not possible to know if the current findings generalize. However, past research on the Investment Model (including meta-analytic findings; Le & Agnew, 2003) has found that both the associations between constructs in the model and their associations with various relational outcomes are robust to moderation by demographic factors. Thus, we are reasonably confident with respect to the generalizability of the current findings but would encourage future research featuring data from different populations.

Future research could also profitably examine the general phenomenon of on-again/off-again romantic relationships (Dailey, Brody, LeFebvre, & Crook, 2013; Dailey, Middleton, & Green, 2012). It is possible that some individuals who broke up maintained friendships with their ex-partners in the hope of getting back together with them romantically. Moreover, having data from both partners in a longitudinal design would also

provide information on whether both couple members align in their perceptions regarding the degree of closeness in their post-dissolution relationship.

## Conclusion

In conclusion, the current study extends research on post-breakup relationships and on romantic relationship dissolution more generally by examining theory-derived factors that lead ex-partners to maintain relationship closeness. Although a romantic relationship might not have endured, the termination of a romance does not signal the complete termination of a relationship, especially when individuals may at times convert a once-committed romance into an ongoing and meaningful friendship.

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