Predictors of relationship status and satisfaction after six months among dating couples.

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Abstract:
This study used the investment model to predict relationship status and satisfaction among a sample of heterosexual dating couples. Both partners of 42 couples completed measures of commitment, relationship satisfaction, alternative quality (i.e., perceptions of how easy it would be to do better in another relationship than in the present one), and relationship duration at Time 1. Six months later, measures of relationship status and satisfaction were completed. On several dimensions, females had cognitions that were more relationship maintaining than did males. A path analysis did not support the investment model. However, females' perceptions at Time 1 that they had poor quality relationship alternatives predicted positive relationship status 6 months later. Time 1 scores predicted both males' and females' Time 2 relationship satisfaction, although males' Time 1 views of the relationship were more strongly predictive of females' Time 2 relationship satisfaction than vice versa. These findings suggest that females may be more invested in their relationships than are males and that this greater investment may provide them with more influence over the future course of their relationships.

Keywords: dating | relationship satisfaction | couples | commitment | dating relationships | relationship status

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Given the distress that is associated with the end of a dating relationship (Attridge, Berscheid, & Simpson, 1995; Simpson, 1987; Sprecher, 1994), the identification of predictors of relationship outcomes is an important research area. The general purpose of the present study was to examine the extent to which a series of theoretically generated variables predicted relationship outcomes 6 months after an initial assessment among a sample of heterosexual dating couples. This study falls within the "early determinism" category of models of premarital relationships (Surra, 1990). Models in this category posit that properties of the relationship that are in place early on affect the later course of the relationship (Berg & Clark, 1986).

Two related relationship outcomes were examined in the present study: status and satisfaction. The first outcome, relationship status, is interpersonal in nature and reflects the course the relationship has taken over time. Status is often assessed dichotomously (i.e., the relationship continues or does not continue) and is referred to as stability. However, because we conceptualized this construct as an ordinally scaled variable ranging from "the relationship has terminated" to "the relationship has become much more serious and involved," we use the more general term status. To be consistent with much of the previous literature, we use the term stability when other investigators have assessed this construct in a dichotomous manner. The second outcome, relationship satisfaction, by contrast, is an intrapersonal evaluation of the positivity of feelings for one's partner and attraction to the relationship (Rusbult, 1983).

Our attempt to predict relationship outcomes was guided by Rusbult's (Rusbult, 1983; Rusbult & Buunk, 1993) investment model. According to this model, relationship stability is dependent upon a series of cognitions held by each partner about the relationship. As used here, to the extent that the partners hold cognitions that contribute to positive relationship outcomes, these cognitions are considered relationship maintaining.

The investment model posits that relationship stability is most directly affected by the extent to which the two partners are committed to the relationship (Floyd & Wasner, 1994). Commitment represents feelings of attachment to a partner and a desire to maintain a relationship, for better or for worse; in a general sense, it refers to feelings of dependence on a relationship (Rusbult & Buunk, 1993).

Commitment is affected by three factors. First, commitment is thought to be enhanced when individuals experience relationship satisfaction. Individuals are satisfied with their relationships to the extent that the relationships provide high rewards, incur low costs, and exceed their
comparison level, which is defined as a "standard by which people evaluate the rewards and costs of a given relationship in terms of what they feel is deserved and/or realistically obtainable" (Sabatelli & Shehan, 1993, p. 398). Second, commitment is thought to be enhanced when partners perceive that they have only poor alternatives to the present relationship (i.e., alternative quality). To the extent that one has attractive alternatives (e.g., a prospective new partner), one's commitment to the present relationship is likely to be lower. Finally, the investment model posits that commitment is increased when individuals invest important or numerous resources in the relationship (i.e., investment size). One such resource is the amount of time that the partners have devoted to the relationship.

Thus, the investment model posits that commitment has a direct effect on relationship stability and that relationship satisfaction, alternative quality, and relationship length have indirect effects on relationship status (through their direct effects on commitment). As stated by Rusbult and Buunk (1993), "Ultimately, an individual's decision to remain in or terminate a relationship is most directly mediated by feelings of commitment, in that commitment subjectively summarizes the nature of an individual's dependence on a partner, representing the net influence of the more specific dependence-enhancing variables . . ." (p. 186).

Empirical findings have generally supported the tenets of the investment model in predicting relationship stability in both heterosexual and homosexual couples (see Kurdek, 1992). Researchers have found that relationship stability for heterosexual couples, after periods ranging from 6 weeks to 7 months, was positively related to commitment (Attridge et al., 1995; Drigotas & Rusbult, 1992; Hendrick, Hendrick, & Adler, 1988), relationship satisfaction (Attridge et al., 1995; Drigotas & Rusbult, 1992; Hendrick et al., 1988; Simpson, 1987), low quality relationship alternatives (Attridge et al., 1995; Berg & McQuinn, 1986; Drigotas & Rusbult, 1992; Felmlee, Sprecher, & Bassin, 1990), and the length of the relationship (Attridge et al., 1995; Lloyd, Cate, & Henton, 1984; Simpson, 1987). In addition, commitment levels have been found to relate to concurrent levels of relationship satisfaction (Floyd & Wasner, 1994), alternative quality (Floyd & Wasner, 1994), and relationship duration (Floyd & Wasner, 1994; Rusbult, Johnson, & Morrow, 1986).

Despite the general support that the investment model has received from previous investigations, there have been some inconsistencies in the results from these studies. For example, Lloyd et al. (1984), controlling for relationship duration, and Simpson (1987), in multivariate analyses, found that relationship stability was not predicted by the perceived quality of relationship alternatives. Further, Lloyd et al. (1984) found that relationship satisfaction was not related to later relationship stability. We believe that inconsistencies such as these justify another look at the extent to which investment model variables predict relationship outcomes in heterosexual dating couples.

The inconsistent findings from previous studies may have been due to methodological limitations that we attempted to address in the present study. First, most investigators have used a
dichotomous measure of relationship stability (i.e., continued vs. discontinued; Felmlee et al., 1990), which may have limited variability, reduced the power of statistical analyses, and, consequently, resulted in some of the predictor variables being nonsignificantly related to relationship stability. Accordingly, we used a five-level ordinally scaled measure of relationship status that ranged between the extremes, from "broken-up" to "the relationship has become much more involved and serious in the last 6 months."

Second, previous studies have generally assessed only one partner in the couple (see Attridge et al., 1995). This strategy is a limitation because relationship outcomes (i.e., status and satisfaction) are dependent on a series of interactions involving both partners over the course of time. Accordingly, we gathered data from both partners at both time periods, which allowed us to determine the extent to which both partners' Time I scores on investment model variables predicted relationship status and satisfaction at Time 2.

Third, several (but not all) studies have employed relatively short time periods (i.e., less than 3 months) between assessments, which may place limits on the extent to which the investment model variables are able to successfully predict relationship outcomes. The effects of the cognitive and interactional processes inherent in the proposed model may require a longer time to emerge. Accordingly, we used a 6-month follow-up period.

Because we used a five-level ordinally scaled measure of relationship status, gathered data from both partners at both time periods, and used a 6-month follow-up, we were able to address three purposes in this study. The first purpose was to compare males' and females' (from the same couple) scores on the Time 1 investment model variables and on relationship satisfaction 6 months later at Time 2. Although possible gender differences on these variables have potentially important implications for relationship outcomes, few studies have tested for possible within-couple gender differences on these variables (for a notable exception, see Attridge et al., 1995). We hypothesized that females would have cognitions that were more relationship maintaining (i.e., greater commitment and satisfaction, and lower alternative quality) than males because of four related findings from the literature: (a) Women work harder to maintain their relationships than men (Acitelli, 1992; Bell, Daly, & Gonzalez, 1987; Duffy & Rusbult, 1986; Fitness & Strongman, 1991; Kirkpatrick & Davis, 1994; Sprecher, 1994); (b) women report having less access to desirable relationship alternatives than men (Attridge et al., 1995; Floyd & Wasner, 1994); (c) females in dating relationships have higher expectations than men for their relationships in a variety of areas (including commitment) (Sabatelli, 1988); and (d) females report greater relationship satisfaction than their male partners (Attridge et al., 1995).

The second purpose of this study was to examine how well the the Time 1 investment model variables predicted relationship outcomes at Time 2. Although the primary means of testing these relations was a path analysis, we also examined the bivariate relations between the Time 1 investment model variables and Time 2 relationship outcomes. With respect to bivariate relations, given the bulk of the findings from previous work, we hypothesized that for both
partners high Time 1 levels of commitment, relationship satisfaction, low alternative quality, and relationship duration would predict relationship status and relationship satisfaction at Time 2.

With respect to multivariate relations, we tested a path model (see Figure 1) in which it was expected that: (a) Time 1 commitment levels will have positive direct effects on later relationship status; (b) relationship satisfaction (positively), alternative quality scores (negatively), and relationship duration (positively) will affect commitment levels; and (c) relationship satisfaction and alternative quality scores and relationship duration will have indirect and direct effects on relationship status. If commitment is the strongest predictor of relationship status, the Time 1 variables—relationship satisfaction, alternative quality, and relationship duration—should have larger indirect effects (through commitment levels) than direct effects on relationship status (Rusbult, 1983). Although the investment model is most applicable to the prediction of relationship status, for exploratory and comparative purposes, we also tested the same path model for males' and females' Time 2 relationship satisfaction.

The final purpose of this study was to assess within-couple differences in the extent to which males' scores and females' scores predicted relationship outcomes. Although some researchers have reported that relationship stability is better predicted by information gathered from female partners than from mate partners (Kirkpatrick & Davis, 1994; Rubin, Peplau, & Hill, 1981), others have not found this effect (Attridge et al., 1995). Gathering data from both partners allowed us to revisit this question by testing whether relationship outcomes were more accurately predicted by data from male or female partners. For relationship status, we hypothesized that females' Time 1 scores would be more strongly related (both bi-variately and multivariately) to Time 2 relationship status than would males' Time 1 scores. This prediction is consistent with the work of a number of researchers, who have found that females are more interpersonally oriented (Worrell, 1988) and work harder to maintain their relationships than males (Acitelli, 1992; Bell et al., 1987; Fitness & Strongman, 1991; Kirkpatrick & Davis, 1994; Sprecher, 1994).

For relationship satisfaction at Time 2, we predicted that males' Time 1 scores would predict their later relationship satisfaction and that females' Time 1 scores would predict their later satisfaction. Further, because of the work reviewed above suggesting that women are more sensitive to relational issues than are men, we expected that females would be more influenced by their partners' levels of commitment, satisfaction, and alternative quality than would males (Blais, Sabourin, Boucher, & Vallerand, 1990). Thus, we expected that males' Time 1 scores would predict females' Time 2 relationship satisfaction to a greater degree than females' Time 1 scores would predict males' Time 2 level of relationship satisfaction.

**METHOD**

Participants

Participants were both partners in 42 dating, heterosexual couples, comprising 42 students, 16 males and 26 females (hereafter referred to as respondents), enrolled in introductory psychology
classes at a medium-sized, private, Catholic university and their heterosexual partners (26 males, 16 females).

Respondents received partial credit toward the completion of course requirements; those whose partners also participated at Time 1 were given an extra credit. For a couple to be included in this study, the following two criteria had to be met: (a) The respondent reported that he or she was currently involved in a heterosexual, dating relationship, and (b) both partners participated in the Time 1 and Time 2 assessments.

One hundred twenty-nine respondents completed the Time 1 assessments. Of these, 102 (79.1%) of their partners also completed the Time 1 instruments. At Time 2, both partners provided complete data in 42 (41.2%) of these 102 couples. At time 2, 12 of these 42 relationships had terminated, and 30 were still intact.

Because respondents and their partners did not significantly differ on any of the variables assessed at Time 1, participants were distinguished in subsequent analyses on the basis of their gender and not on the basis of whether they were respondents or partners. With respect to demographic characteristics, male and female participants had mean ages of 19.40 and 18.79 years, respectively; 57.6% and 69.1% of males and females were in either their sophomore or junior years, respectively; and they had been dating for a mean of 34.39 weeks (ranging from 4 to 119 weeks). Although not directly assessed in this sample, most of the students at this university are White and live in middle to upper-middle income families.

Measures

At Time 1, in addition to items that assessed gender, age, year in college, and length of the dating relationship (M = 34.39 weeks, SD = 24.91 weeks), three measures were administered to participants and their partners. At Time 2, two measures were administered. For all multi-item instruments, Cronbach's alphas for composite scores are reported separately for male and female participants.

Time 1 measures. Commitment was assessed by seven items from Sternberg's (1988) Commitment Scale. On each item (e.g., "I view my commitment to my partner as a solid one"), participants rated the extent to which the statement was true for them (1 = not at all true, 9 = extremely true). Cronbach's alphas for the composite score were .92 and .90 for males and females, respectively.

Hendrick's (1988) Relationship Assessment Scale was used to assess relationship satisfaction. This instrument was designed to briefly measure satisfaction in a wide variety of types of close relationships, including dating relationships. It consists of seven items (e.g., "How well does your partner meet your needs?", "How good is your relationship compared to most?") that are rated on a 5-point scale with varying anchors. Higher scores indicate greater satisfaction with the
relationship. Cronbach's alphas for the composite score were .80 and .84 for males and females, respectively.

Alternative quality was assessed by two items, one of which was developed by Hatfield, Utne, and Traupmann (1979). On each item ("If you found yourself unattached again, for whatever reason, and wanted to find a new partner, how easy or difficult would that be?" and "In your estimation, how likely is it that you could find a new dating partner who more closely resembles your ideal partner than your current partner?"), respondents rated (on a 9-point scale) how easy it would be for them to find an alternative partner or how likely it would be that they could find a partner who matched their ideal partner more closely than their current partner. High scores indicate that the individual perceives that it would be easy to find relationship alternatives that are preferable to the present partner. Cronbach's alphas for the composite score were .81 and .86 for males and females, respectively.

Time 2 measures. As part of a longer author-developed instrument, an item was administered to assess relationship status. This item assessed the status of the romantic relationship that participants were in at Time 1. The response options were: (1) broken-up, (2) relationship continues but is less serious and involved than 6 months ago, (3) about the same as 6 months ago, (4) somewhat more serious and involved than 6 months ago, or (5) much more serious and involved than 6 months ago. Because the correlation between the partners' scores on the relationship status index was .84 (p < .001) and because the pattern of relations between the Time 1 investment model variables and each partner's relationship status score was identical, the relationship status index used in subsequent analyses was the mean of the two partners' scores (M = 3.02, SD = 1.40).

With recoding, this five-level ordinally scaled measure of relationship status also allows one to compute the more traditional dichotomous index of stability (i.e., broken-up vs. still together). To compare findings using the status and stability measures, all of the relevant statistical analyses were conducted with both measures. Although the results from these analyses were quite similar, many of the paths were not significant in the analyses involving the stability measure that were significant in the analyses involving the status measure. One of the reasons this occurred was that the dichotomous index of stability had lower variability than did the five-level index of status, which reduced the power of the statistical tests. As a result, in this article, we only present results involving the five-level measure of relationship status.

If both participants indicated that their relationship was continuing, even if it had become less serious and involved, they completed a second administration of the Relationship Assessment Scale (Hendrick, 1988). Cronbach's alphas for the composite score at Time 2 were .92 and .83 for males and females, respectively.

Procedure
Potential respondents were notified by posted sign-up sheets that the study was intended for students presently involved in heterosexual relationships. At Time 1, the instruments were administered to respondents in introductory psychology courses in groups in university classrooms. The respondents were asked to provide the names and addresses of their partners. Partners who were willing to participate completed an identical set of instruments either in a university classroom or through the mail (via postage-paid envelopes).

At Time 1, the consent procedure informed participants and partners that they would be contacted again in 6 months for a brief follow-up questionnaire that would ask them a few questions about their relationship at that time. The Time 2 instruments and postage-paid envelopes were mailed to both partners.

RESULTS

Gender Differences in Time 1 Investment Model Variables and Time 2 Relationship Satisfaction

To compare male and female participants on the Time 1 measures and Time 2 relationship satisfaction, a series of paired t tests were computed with gender treated as a within-subjects factor. The dependent variables were the Time 1 measures (commitment, relationship satisfaction, and alternative quality) and the Time 2 relationship satisfaction score.

There was a significant gender (p < .05) difference on the Time I commitment measure. Females (M = 7.95, SD = 1.15) had significantly higher commitment scores than males (M = 7.52, SD = 1.48). There was also a trend (p < .10) toward a difference on alternative quality, with females (M = 3.13, SD = 1.80) having lower scores than males (M = 3.65, SD = 1.79).

In the analysis on Time 2 relationship satisfaction scores, only couples who were still in relationships (n = 30) were included. Females (M = 4.31, SD = .60) had significantly (p < .05) higher relationship satisfaction scores at Time 2 than did males (M = 4.06, SD = .89).

Relations Between Time 1 Predictors and Relationship Status

To test the extent to which the Time I variables predicted Time 2 relationship status, a path analysis was conducted. In addition to reporting the results of the path analysis, we also present the bi-variate correlations because they provide a useful index of the extent to which each predictor variable is individually related to the dependent variable and because they help provide a context for interpreting the multivariate results. Table 1 presents the correlations between all measures used in the study.

Bivariate relations. As expected, relationship status was positively related to females' Time 1 relationship satisfaction and negatively related to females' alternative quality scores. There was
also a trend (p < .10) correlation suggesting that relationship status was positively related to females' Time 1 commitment scores. Males' Time 1 scores were not significantly correlated with relationship status.

Table 1 also shows that males' commitment level was positively correlated with males' Time 1 relationship satisfaction and negatively related to males' Time 1 alternative quality scores. Females' commitment level was positively correlated with males' and females' Time 1 relationship satisfaction and negatively related to males' and females' alternative quality scores.

Path analysis. As shown in Figure 1, the hypothesized path model proposes that the commitment levels of both males and females directly affect relationship status. If commitment is the primary mediator of relationship status, the five predictors that are thought to affect commitment--males' relationship satisfaction, females' relationship satisfaction, males' alternative quality, females' alternative quality, and relationship duration--should have larger indirect than direct effects on relationship status. To test this model, both direct and indirect paths between these five predictors and relationship status were tested. Multicollinearity was not a problem in the path analysis because the highest value of the variance inflation factor (i.e., an index of the extent to which a predictor is linearly associated with all of the remaining predictors) for any independent variable was 3.85. Myers (1990) has reported that values below 10 indicate that multicollinearity is not a problem.

In the multivariate context, males' commitment scores were higher to the extent that they were satisfied with their relationships and had low quality relationship alternatives. Females' commitment scores were higher to the extent that they were satisfied with their relationships and were in relationships of longer duration.

One Time 1 variable--females' alternative quality--was able to significantly predict Time 2 relationship status. However, the path model was not supported because males' and females' commitment scores were not significantly predictive of Time 2 relationship status. Thus, there were no significant indirect effects (through commitment levels) between relationship satisfaction, alternative quality, and relationship duration and Time 2 relationship status.

Relations Between Time 1 Predictors and Time 2

Relationship Satisfaction for

Still Intact Couples

Bivariate relations. Pearson correlations were computed to determine the bivariate relations between the Time 1 predictor variables and Time 2 relationship satisfaction for those couples whose relationships were still intact (n = 30). Separate correlations were computed for males' and females' Time 2 relationship satisfaction.
With respect to the intrapartner correlations shown in Table 1, for both males and females, the Time 1 predictor variables were significantly correlated in expected directions with relationship satisfaction at Time 2. Specifically, relationship satisfaction after 6 months for those individuals whose relationships were still intact was positively related to their own high levels of relationship commitment and satisfaction at Time 1, and negatively related to Time 1 alternative quality scores.

With respect to the interpartner correlations, Table 1 shows that all of the males' Time 1 scores were predictive of females' Time 2 relationship satisfaction. By contrast, only one of the females' Time 1 scores (alternative quality) was predictive of males' Time 2 relationship satisfaction. Thus, females' Time 2 satisfaction was predicted by both males' and females' investment model variables at Time 1, whereas males' Time 2 satisfaction was predicted primarily by their own investment model variables at Time 1. Path analyses. Figures 2 and 3 show the path analyses conducted on males' and females' Time 2 relationship satisfaction, respectively. Multicollinearity was not a problem in these analyses because the highest values for the variance inflation factor were 3.46 and 3.58 for the analyses conducted on males' and females' Time 2 relationship satisfaction, respectively.

In the analyses predicting males' Time 2 relationship satisfaction, as shown in Figure 2, males' commitment levels were higher to the extent that they were satisfied with their relationships and perceived that they had low quality relationship alternatives. Females' commitment was higher to the degree that they were satisfied with their relationship. The Time 1 variables were able to significantly predict males' Time 2 relationship satisfaction ($R^2 = .60$). Specifically, males' Time 2 relationship satisfaction was greater to the extent that males were satisfied with their relationships at Time 1, that females perceived that they had low quality relationship alternatives at Time 1, and that females had low commitment to their relationship at Time 1. The only significant indirect effect involved females' relationship satisfaction. Females' Time 1 relationship satisfaction was positively related to females' Time 1 commitment, which, in turn, was negatively related to males' Time 2 relationship satisfaction.

Because the path analysis for the full model contained males' Time 1 relationship satisfaction, one can also interpret the results from the analysis as testing which variables were predictive of changes in males' relationship satisfaction from Time 1 to Time 2. Thus, the results also indicate that positive changes in males' relationship satisfaction were associated with females having low levels of commitment and poor quality relationship alternatives at Time 1.

Females' Time 2 relationship satisfaction (see Figure 3) was greater to the extent that males perceived that they had poor quality relationship alternatives at Time 1. There were no significant indirect effects on females' Time 2 relationship satisfaction.
Because the path analysis for the full model contained females' Time 1 relationship satisfaction, the results also indicate that positive changes in females' relationship satisfaction from Time 1 to Time 2 were associated with males having poor quality relationship alternatives at Time 1.

DISCUSSION

We had three primary purposes in conducting this study. First, we assessed whether males or females had cognitions that were more relationship maintaining. Second, with both bivariate correlations and path analyses, we examined the extent to which the Time 1 investment model variables were able to longitudinally predict relationship outcomes at Time 2. Finally, we assessed whether males' scores or females' scores were better able to predict later relationship outcomes. Results pertaining to each of these purposes are discussed in turn.

Gender Differences in Time 1 Investment Model Variables and Time 2 Relationship Satisfaction

The first purpose of this study was to compare male and female partners' scores on the Time 1 investment model variables and on relationship satisfaction 6 months later at Time 2. As expected, females had cognitions at Time 1 that were more relationship maintaining (higher commitment and a trend toward lower quality relationship alternatives at Time 1 and greater relationship satisfaction at Time 2) than were those of males. By showing that females are more committed to their relationships and have lower quality relationship alternatives at Time 1 and are more satisfied with their relationships at Time 2 than males are, these results are consistent with findings that have directly compared male and female dating partners from the same couples on these variables (Attridge et al., 1995; Floyd & Wasner, 1994; Sabatelli, 1988) and previous findings that females work harder to maintain their romantic relationships than males (Acitelli, 1992; Bell et al., 1987; Duffy & Rusbult, 1986; Fitness & Strongman, 1991; Kirkpatrick & Davis, 1994; Sprecher, 1994). Higher levels of commitment and satisfaction may indicate that females are more invested in their relationship than are their male partners.

Relations Between Time 1 Predictors and Relationship Outcomes

The second purpose of this study was to examine the bivariate and multivariate relations between the Time 1 investment model variables and relationship outcomes 6 months later. With respect to relationship status, the bivariate relations revealed that only females' scores predicted relationship status. To the extent that females were satisfied with the relationship and perceived that there were only low quality alternatives to the present relationship at Time 1, relationship status at Time 2 was more positive. There was also a trend toward the female's initial commitment level predicting later relationship status. These results are consistent with previous studies (Attridge et al., 1995; Berg & McQuinn, 1986; Drigotas & Rusbult, 1992; Felmlee et al.,
1990; Hendrick et al., 1988; Lloyd et al., 1984; Simpson, 1987). Possible reasons why females' scores, but not males' scores, were predictive of relationship status are discussed below.

Thus, at the bivariate level, females' scores on the Time 1 investment model measures were related in expected ways to Time 2 relationship status. However, the path analysis did not support the investment model as it was tested in this study. In the multivariate context, males' and females' commitment levels had no direct effects on relationship status. Further, although several of the Time 1 investment model variables had direct effects on males' and females' commitment as is consistent with previous studies (Floyd & Wasner, 1994; Rusbult et al., 1986), these variables had no indirect effects on relationship status (because commitment levels had no direct effects on relationship status). In addition, one Time 1 predictor--females' alternative quality--had a direct and negative effect on relationship status.

It is unclear why the path analyses failed to support our interpretation of the investment model. Two statistical and methodological reasons may have been contributing factors. First, it is tempting to attribute the lack of support to low statistical power due to our relatively small sample size, but this appears to be only a partial cause. Although some of the nonsignificant path coefficients were in the expected direction and may have reached significance with a larger sample, a few of the important path coefficients (those representing the direct effects of males' and females' commitment levels on relationship status) were in a direction opposite of that predicted. For these later coefficients, greater statistical power would not have led to the expected relations. Second, although the measures used in this study were reliable, it is possible that they did not adequately assess the investment model constructs, as described below.

It is also possible that there are substantive reasons why the path model was not supported. Although the specific tenets of the investment model have been supported in numerous studies previously cited, few investigators have tested the model in a multivariate context (for an exception, see Rusbult, 1983), such as in path analyses. Based on the present results, it is possible that the model needs to be altered to reflect that females' perceptions that they have low quality relationship alternatives have direct, rather than indirect, effects on later relationship status.

To determine the extent to which the investment model variables were successful in predicting an intrapersonal relationship outcome, we also examined males' and females' Time 2 relationship satisfaction for those couples whose relationships were still intact. When the bivariate relationships were examined, the Time 1 investment model variables were strongly predictive of both males' and females' Time 2 relationship satisfaction. With respect to intrapartner associations, each partner's relationship satisfaction after 6 months was positively and strongly predicted by each of his or her investment model cognitions at Time 1, although the duration of the relationship at Time 1 was not predictive of later relationship satisfaction. These findings suggest that, for the subgroup of dating couples whose relationships are still intact after 6
months, early levels of commitment, satisfaction, and alternative quality have a lasting effect on later relationship satisfaction.

With respect to interpartner relations, females' Time 2 relationship satisfaction was predicted by males' Time 1 scores to a greater degree than males' Time 2 relationship satisfaction was predicted by females' Time 1 scores. This pattern suggests that females are affected more by their partners than are males. Because females may be more interpersonally oriented than men (Worrell, 1988), their relationship outcomes may be influenced more by their (male) partners' views of the relationship than males' outcomes are affected by their (female) partners' views of the relationship.

When the multivariate relations between the predictors and males' and females' Time 2 relationship satisfaction were examined in the path analyses, few Time 1 variables were significant predictors. For both males and females, low alternative quality scores for their partner were associated with positive changes in satisfaction at Time 2. Thus, increases in males' Time 2 relationship satisfaction were predicted by females' low alternative quality scores and vice versa. Somewhat surprisingly, in the multivariate context, males' Time 2 relationship satisfaction and positive changes in their relationship satisfaction were predicted by low levels of commitment at Time 1 by their female partners. Perhaps males are wary of partners who seem to be too strongly dependent on them. If this is the case, males may allow themselves to become more invested and satisfied with a relationship when they do not feel that their partners are overly committed to the relationship.

The generalizability of these findings is limited by two selection effects operating in the analyses involving Time 2 relationship satisfaction. First, only those partners whose relationships were still intact at Time 2 completed this measure. Second, to insure that both partners were represented in these analyses, only those couples in which both partners completed the Time 2 relationship satisfaction measure were included in these analyses. As a result of these two selection effects, it is possible that the 30 couples included in these analyses were functioning at a somewhat higher level than the population of dating couples.

Are There Differences in the Extent to Which Males' Scores and Females' Scores Predict Relationship Outcomes?

The third purpose of this study--to determine whether males' or females' Time 1 scores better predicted Time 2 relationship outcomes--produced results that suggest that relationship status was more strongly predicted by the females' investment model cognitions at Time 1 than the males'. These results are consistent with previous research that has suggested that the future course of dating relationships is more related to how females view the relationship than to how males view the relationship (Kirkpatrick & Davis, 1994; Rubin et al., 1981). Attridge et al. (1995), however, did not find this effect. To the extent that this finding is reliable, it appears that
females' greater level of investment in their relationships provides them with more influence than males over the future course of their relationships.

There is an apparent discrepancy between two gender-related patterns pertaining to the third purpose of this study. On the one hand, relationship status was more strongly predicted by information gathered from females than from males. On the other hand, females' later relationship satisfaction was more strongly predicted by the males' early views of the relationship than vice versa. This incongruity may be due to the different natures of these two relationship outcomes. Relationship status is a dyadic-level variable that refers to how the partners' relationship has progressed, whereas relationship satisfaction is an individual-level variable that refers to how each partner independently evaluates the relationship.

Limitations and Implications for Future Research

Several limitations of this study should be noted. First, we did not have Time 2 assessments of two of the predictor variables included in the investment model (i.e., relationship commitment and alternative quality). We recommend that investigators obtain multiple longitudinal assessments of these variables in future research. Such assessments would allow one to determine the extent to which changes in these variables are related to later relationship outcomes.

Second, all of the measures involved self-report. Thus, some of the observed relations could have been due to shared method variance. In future research, it would be helpful to obtain external corroboration of later relationship outcomes, either in the form of third person informants or behavioral observations.

Third, the sample size was somewhat small, particularly with respect to analyses pertaining to relationship satisfaction at Time 2. Although this is understandable given the difficulty of securing cooperation from both partners at two time periods separated by 6 months, it would be helpful if investigators attempted to obtain larger sample sizes in future studies, and especially more diverse samples that include nonstudents. Larger and more diverse samples would provide an opportunity to conduct more sensitive tests of how well the investment model predicts later relationship outcomes.

Finally, as mentioned earlier, we may not have adequately measured some of the investment model constructs. Surra (1990) noted that some of the investment model constructs, and hence their measures, have been criticized for conceptually overlapping with each other. For example, because commitment conceptually overlaps with satisfaction, it is difficult to obtain an independent assessment of either construct. Future research in this area would benefit substantially from work directed towards the construction of psychometrically sound measures.

NOTE
The authors thank Larry Kurdek and Don Polzella for their assistance with this study and two anonymous reviewers for their helpful comments on this article. Please address all correspondence regarding this article to Mark A. Fine.

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a Department of Human Development and Family Studies, University of Missouri, 31 Stanley Hall, Columbia, MO 65211.

**TABLE 1. CORRELATIONS BETWEEN TIME 1 PREDICTORS AND TIME 2 RELATIONSHIP STATUS AND SATISFACTION**

Legend for Chart:

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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<tbody>
<tr>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
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</table>

1. Commitment (M)
2. Commitment (F)

<table>
<thead>
<tr>
<th></th>
<th>.20</th>
<th>.70[c]</th>
<th>.11</th>
<th>-.68[c]</th>
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<tbody>
<tr>
<td>-.02</td>
<td>.10</td>
<td>-.09</td>
<td>.38[b]</td>
<td>.32[b]</td>
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</table>

3. Relationship satisfaction (M)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>.44[c]</th>
<th>.72[c]</th>
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<tbody>
<tr>
<td>-.53[c]</td>
<td>.00</td>
<td>.25[a]</td>
<td>.19</td>
<td>.41[b]</td>
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4. Relationship satisfaction (F)

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<th></th>
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<th>.42[c]</th>
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<td>-.22</td>
<td>-.03</td>
<td>.14</td>
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5. Alternative quality (M)

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<td>-.17</td>
<td>-.08</td>
<td>-.53[c]</td>
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6. Alternative quality (F)
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<td>-.33[b]</td>
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7. Length of dating relationship

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8. Status

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9. Time 2 relationship satisfaction (M)

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10. Time 2 relationship satisfaction (F)

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Note: M = males. F = females. For all correlations with status, n = 42. For all correlations with males' and females' Time 2 relationship satisfaction, n = 30.

a p<.10.
REFERENCES


