Testing the Investment Model of Relationship Commitment and Stability in a Longitudinal Study of Married Couples

EMILY A. IMPETT, KRISTIN P. BEALS, AND LETITIA A. PEPLAU
University of California, Los Angeles

This study tested Rusbult's (1980, 1983) investment model of relationship commitment and stability using data from both partners of 3,627 married couples. As predicted, spouses' satisfaction, investments, and quality of alternatives were unique predictors of their commitment to the marital relationship. Additionally, commitment assessed at the initial testing predicted marital termination or stability 18 months later. Multiple-group path analyses showed that the investment model provided an adequate fit to the data and that the associations among variables were similar for husbands and wives. Limitations of the model as well as directions for future research are considered.

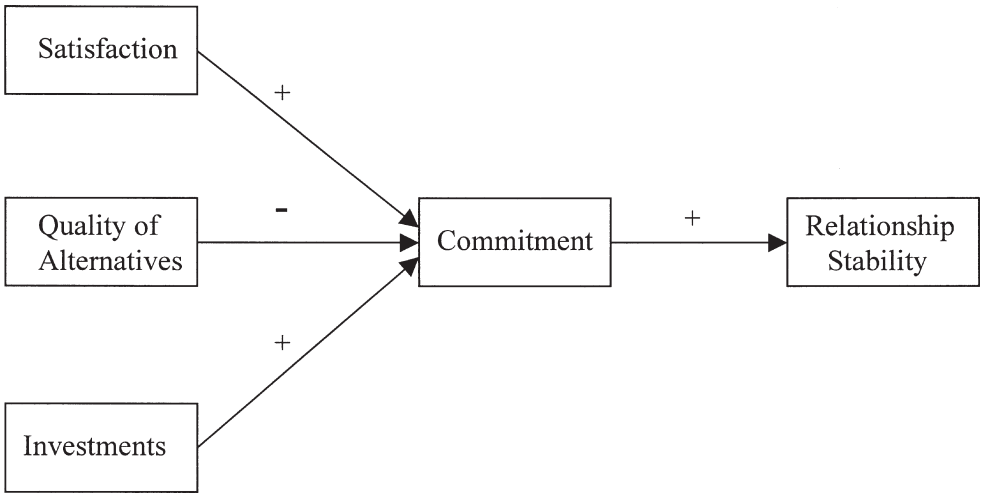
Romantic relationships initiated with high hopes sometimes end in disappointment. What factors lead some relationships to endure and others to end? Rusbult's (1980, 1983) investment model draws on interdependence theory (Kelley & Thibaut, 1978; Thibaut & Kelley, 1959) to predict commitment and stability in romantic relationships. According to the investment model depicted in Figure 1, the most proximate predictor of relationship stability is each individual partner's commitment to maintaining the relationship. Commitment represents the degree to which an individual experiences long-term orientation toward a relationship, including the desire to maintain the relationship for better or worse. Commitment, in turn, is affected by three factors—satisfaction, investments, and the quality of alternatives.

Predictors of Relationship Commitment and Stability

Satisfaction is commonly conceptualized as the extent to which a relationship is perceived as gratifying. Individuals are generally satisfied when relationships provide high rewards and low costs. Rewards are things provided by one's partner or the relationship that an individual enjoys, such as sexual gratification or social support. Costs are attributes of the partner or the relationship that an individual dislikes, such as frequent conflicts or financial burdens. Research has demonstrated that the strength of commitment to a romantic relationship is associated with an individual's feelings of satisfaction (e.g., Bui, Peplau, & Hill, 1996; Rusbult, 1980). Although satisfied people tend to be committed to their relationships, unhappy people sometimes want their relationships to continue. For example, an individual may feel trapped in a loveless

Current Psychology: Developmental • Learning • Personality • Social Winter 2001–02, Vol. 20, No. 4, 312–326.

FIGURE 1
The investment model of commitment and relationship stability



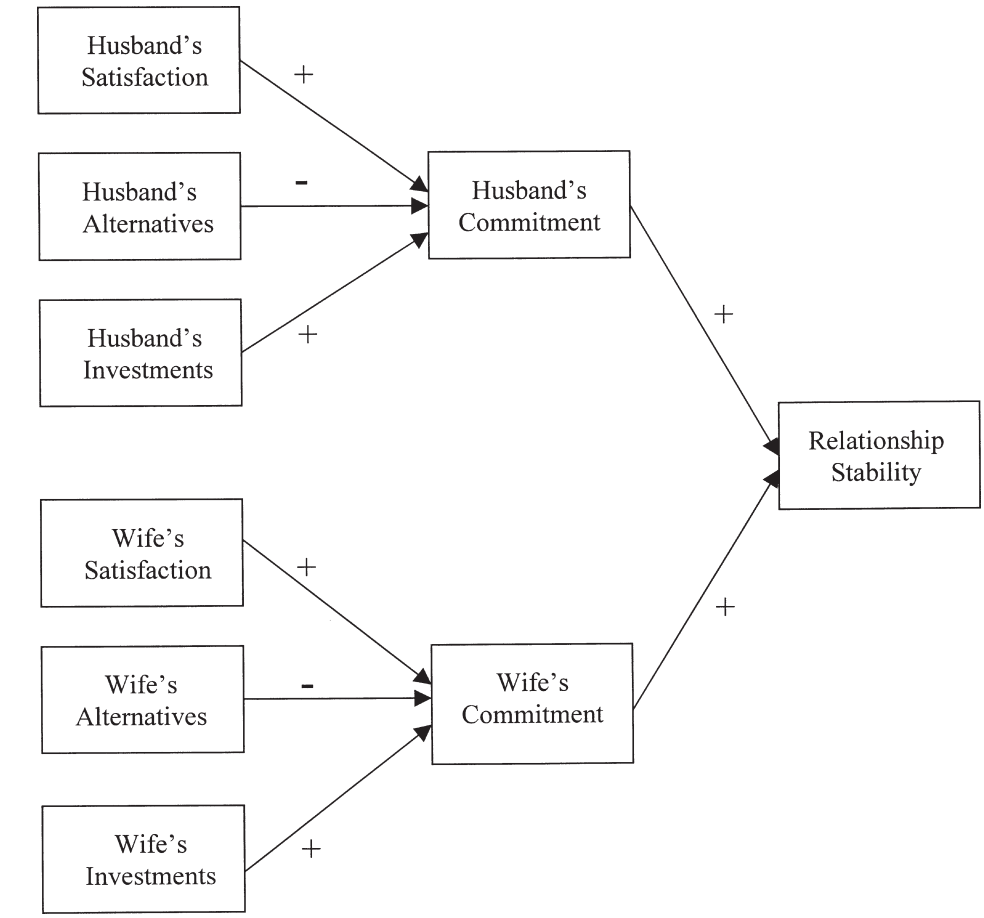
marriage, but stay married to avoid the financial hardships of living alone. This example illustrates that satisfaction is not the only predictor of relationship commitment.

According to the investment model, the quality of alternatives is a second important predictor of commitment. Alternatives refer to an individual's subjective assessment of the rewards and costs that could be obtained outside the current relationship, including specific other partners, spending time with friends and family, or spending time alone. Third, commitment is also affected by investments of resources such as time, effort or money that an individual has contributed to the relationship and would lose if the relationship were to end. Specific marital investments include such things as the length of time spent together, a jointly owned home, or joint financial investments.

In summary, according to the investment model, individuals who are highly satisfied, have invested a great deal, and perceive few appealing alternatives will be highly committed to their romantic relationships. Cross-sectional studies of college students' dating relationships (Lin & Rusbult, 1995; Rusbult, 1980, 1983), married and cohabiting heterosexual adults (Rusbult, Johnson & Morrow, 1986), and homosexual adults (Beals, Impett, & Peplau, 2001; Duffy & Rusbult, 1986) have demonstrated that satisfaction, quality of alternatives, and investments are significant predictors of commitment. Additionally, these studies have generally found that the strength of these predictors was similar for men and women.

The investment model also predicts that individuals' feelings of commitment influence the stability of their relationship. Two longitudinal studies of college dating relationships have demonstrated that individuals' feelings of commitment significantly predicted staying together versus ending the relationship (Bui, et al., 1995; Rusbult, 1983). However, this crucial temporal component of the model, predicting subsequent stability from initial commitment, has not been tested in a sample of married couples. Further, evidence of the overall fit of the entire Rusbult model is limited to a single study of dating heterosexuals (Bui et al., 1996) and a study of cohabiting lesbians

FIGURE 2
Conceptual model to be tested including data from husbands and wives



(Beals, Impett, and Peplau, 2001). This model has never been assessed among married couples.

Goals of the Current Study

In order to replicate and extend the generalizability of the investment model to married couples, this study tested the model in a large sample of married couples studied prospectively over an 18-month period. We had four main goals. One goal was to replicate previous research demonstrating that satisfaction, alternatives, and investments are unique predictors of commitment in a sample of married couples. A second goal was to provide the first empirical test of the causal link between initial commitment and subsequent relationship outcomes with married couples. Specifically, we tested the prediction that both husbands' and wives' commitment at the initial assessment would affect relationship stability over time. A strength of this approach is that

we use data from both members of the couple in order to predict relationship outcomes. A third goal was to replicate previous findings demonstrating that the predictors of commitment and stability do not differ significantly for men and women. Finally, a fourth goal was to use path analytic procedures to provide an overall assessment of the investment model using data from both spouses. Figure 2 depicts the conceptual model to be tested.

METHOD

The current study entailed secondary analyses of data collected by sociologists Philip Blumstein and Pepper Schwartz (1983) as part of the American Couples Study. Participants were recruited nationwide through television, radio, newspapers, and magazines. Volunteers were mailed two copies of a questionnaire, one for each partner. Only the married couples who returned both questionnaires were included in our analyses. Eighteen months after the participants completed the initial questionnaire, a follow-up questionnaire was mailed to a randomly chosen subsample (34%) of married couples. Eighty-two percent of these married couples returned the follow-up questionnaires. Thus, 27 percent of the married couples who completed the original questionnaire also completed the follow-up questionnaire. For further details about recruitment and data collection, see Blumstein and Schwartz (1983).

Participants

The 3,627 married couples who completed the initial questionnaire came from all regions of the country, with greatest representation from the Middle Atlantic, North Central U.S., California, and Hawaii. Most participants were white. Participants varied considerably in age, education, and religion. The mean age was 40 years for husbands (range = 17 to 79 years), and 37 years for wives (range = 17 to 77 years). The married couples had lived together for a mean of 13.9 years (range = less than a year to 59 years). The sample was highly educated, with 67 percent of husbands and 52 percent of wives reporting a bachelor's or higher degree. The most common religious denomination reported was Protestant (38% of husbands and 43% of wives), followed by no religious preference (29% of husbands and 22% of wives), Roman Catholic (14% of husbands and 16% of wives), and Jewish (13% of husbands and wives).

Measures

Participants were instructed to complete the questionnaires separately and not to discuss their responses until they had returned the surveys by mail. The 40-page questionnaire contained questions about each participant, his/her spouse, and many aspects of their relationship. The questionnaire contained items that were conceptually similar to measures of commitment, satisfaction, investments and quality of alternatives used by Rusbult. In constructing our measures, we followed Rusbult's general strategy of creating indexes with multiple items when possible (Rusbult, Martz, &

Agnew, 1998). Based on previous research (Bui et al., 1996), we did not expect high internal reliabilities for measures of investments and alternatives. These variables represent the presence of factors that are not necessarily logically connected. For example, a person might believe it would be difficult to find a new romantic partner if the current relationship ended and yet also believe that loneliness would not be a serious problem because he or she enjoys time alone or has many close friends.

Satisfaction. Participants rated how satisfied they were with their relationship in general on a nine-point scale (1= *extremely satisfied* to 9 = *not at all satisfied*). They also indicated their satisfaction with four more specific aspects of their relationship: "how we express affection for each other," "amount of influence I have over decisions we make," "our social life" and "our sex life." Scores on each item were reversed so that higher scores indicated greater satisfaction. The mean of these five items was used as an index of satisfaction. The reliability coefficient for this index was high (Cronbach alpha = .82 for wives and .82 for husbands). Most husbands ($M = 7.3$, $SD = 1.4$) and wives ($M = 7.3$, $SD = 1.5$) reported high levels of satisfaction.

Quality of alternatives. Participants were asked, "If something were to happen to your partner and you were forced to live without him/her, how difficult would it be for you to find another partner?" and "If something were to happen to your partner and you were forced to live without him/her, how difficult would it be for you to avoid loneliness?" on nine-point scales (1 = *extremely difficult* to 9 = *not at all difficult*). A third dichotomous item asked participants if they were currently involved in a "meaningful love affair" (1 = *yes* and 2 = *no*). Scores were reversed so that high scores represented better quality of alternatives. An index was created based on the mean of the z-scores for each of these three items (as such, the means for both husbands and wives were equal to zero). Husbands and wives reported equally low levels of alternatives (both *SDs* = .70). For example, two percent of husbands and 2.5 percent of wives indicated that they were currently involved in a meaningful love affair. As anticipated, the reliability coefficient for this index was relatively low (alpha = .43 for wives and .47 for husbands).

Investments. Two items assessed the investment of money: "Do you and your partner have a joint checking account?" and "Do you and your partner have a joint savings account?" (1 = *yes* and 2 = *no*). Two items assessed time already spent in the relationship. These questions referred to the number of years the partners had dated before marriage and the number of years they had been married. A final question assessed the investment of sharing personal relationships, "What proportion of your close friends are also your partner's friends?" (1 = *all*, 5 = *half*, 9 = *none*). Scores were reversed so that high scores represented more investments in the relationship. The mean of the z-scores of each of these five items was used as an index of investments. Husbands and wives reported similar and high levels of investments (again both means = zero and both *SDs* = .58). For example, couples had been married an average of almost 14 years; seventy five percent of couples shared a savings account, and 78% shared a checking account. The reliability coefficient for this five-item index was high (alpha = .72 for wives and .71 for husbands).

Commitment. A single item captured participants' commitment to their relation-

TABLE 1
Correlations among measured variables

Measured Variable	1	2	3	4	5	6	7	8
1. Husband satisfaction		-.21	.18	.38	.54	-.15	.16	.31
2. Husband alternatives	-.18		-.08	-.22	-.13	.25	-.06	-.14
3. Husband investments	.11	-.09		.14	.13	-.09	.86	.16
4. Husband commitment	.37	-.17	.11		.31	-.14	.13	.45
5. Wife satisfaction	.53	-.17	.04	.31		-.21	.15	.45
6. Wife alternatives	-.08	.21	-.09	-.09	-.18		-.10	-.25
7. Wife investments	.09	-.08	.87	.11	.08	-.11		.17
8. Wife commitment	.34	-.14	.09	.39	.48	-.19	.10	
9. Stability	.12	-.05	.08	.27	.13	-.12	.08	.27

Note: Correlations for participants with follow-up data are below the diagonal, and correlations for participants without follow-up data are above the diagonal

ships. Participants answered the question, "How likely is it that you and your partner will still be together five years from now?" on a nine-point scale (1 = *extremely likely* to 9 = *not at all likely*). Scores on this item were reversed so that high scores represented more commitment. Both husbands (M = 8.5, SD = 1.3) and wives (M = 8.5, SD = 1.3) reported very high levels of commitment to their relationship.

Relationship stability. Assessment of relationship stability was based on a question included in the follow-up questionnaire mailed 18 months after completion of the first questionnaire. Participants were asked if they were still living with their partner (*full-time*, *part-time*, or *not*). Responses to this question were recoded to create a dichotomous measure of stability (1 = *do not live together* and 2 = *live together either full—or part-time*). Of the 983 couples that returned the follow-up questionnaire, only 18 were no longer living together. This is not surprising, since these couples had typically been together for more than a decade at the beginning of the research, and so had survived the early years of marriage when divorce rates are especially high (National Center for Health Statistics, 1990).

Data Analytic Strategy

We used path analysis in the EQS computer program (Bentler, 1995) to test the hypothesized associations among variables, as well as the fit of the overall investment model. Table 1 reports the correlations among all variables used in the model. Except

for the test of the final model, parameter estimates were based on maximum likelihood estimation using a covariance matrix. Model fit was evaluated with three fit indices. The chi-square statistic tests whether the hypothesized model adequately explains the observed pattern of data. A non-significant chi-square indicates good model fit, although it is directly related to sample size. In contrast, the Comparative Fit Index (CFI) and the Robust Mean Square Error of Approximation (RMSEA) are computed independent of sample size. The CFI ranges from 0 to 1.0, and higher scores reflect better model fit. A CFI value of .90 is acceptable, although values of .95 are more desirable (Bentler, 1990). The RMSEA index measures the amount of residual between the observed and predicted covariance structure and compensates for the effect of model complexity (Steiger & Lind, 1980). Browne and Cudeck (1993) recommend that values less than .05 indicate a close fit; values in the range of .05 to .08 indicate fair fit; and values greater than .10 indicate poor fit.

Because the distributions of many of the variables were considerably skewed and kurtotic (thereby violating assumptions of the maximum likelihood estimation method), we used an alternative method of estimating the standard error of parameters that is appropriate when multivariate normality does not hold (Bentler, 1995). The robust option also provides the Satorra-Bentler scaled test statistic (Satorra & Bentler, 1988). Only the test of the final model used the Satorra-Bentler chi-square statistic, and the tests of significance of parameters in this model were computed using the robust standard errors.

Because follow-up information about relationship stability was available for only 27 percent of the original sample, we used multiple-group analyses (Bentler, 1995). This approach allowed us to use the entire sample of participants to test the cross-sectional portion of the model and then to test the full model including stability using only participants who completed the follow-up questionnaire. Additionally, this approach enabled us to test the equivalence of associations among variables for participants with and without follow-up data. Multiple-group analyses also allowed us to investigate gender differences in the predictors of commitment and stability. Husbands and wives did not report significantly different mean levels of satisfaction, quality of alternatives, investments, or commitment to their relationships (all $ps > .05$). Multiple-group analyses allowed us to test for possible differences in the *associations* among the predictors of commitment and stability for husbands and wives.

To assess the possible differences between participants with and without follow-up data, as well as gender differences, we tested and compared a series of models. First, we tested the fit of the model for two groups: those participants who completed and did not complete the follow-up. Second, we combined data from these two groups to create a baseline model that maximized the sample size for the cross-sectional portion of the model. Then, to test for differences between those with and without follow-up data and between husbands and wives, we tested a series of models that imposed increasingly more stringent constraints on the equality of parameters in the model. Specifically, we first constrained the paths between and covariances among the variables to be equal among those who had follow-up data and those who did not. Next, we imposed similar constraints on the paths between and covariances among the

TABLE 2
Results of Multiple-Group Path Analyses

Model Description	χ^2	df	CFI	RMSEA
Model 1: Baseline two-group model with no constraints	318.51	30	.97	.05
Model 2: Model 1 with constrained paths for follow-up/no follow-up	329.08	36	.97	.05
Model 3: Model 2 with constrained covariances for follow-up/no follow-up	337.19	45	.97	.04
Model 4: Model 3 with constrained gender paths	343.00	49	.97	.04
Model 5: Model 4 with constrained gender covariances	344.88	52	.97	.04

variables to be equal among husbands and wives. The tenability of these constrained models was determined with the same goodness-of-fit indices described earlier. In addition, sequential chi-square difference tests indicated whether the equality constraints produced a significant decrement in fit. If the constraints did in fact produce a significant decrement in fit, chi-square difference tests would indicate significance, thereby allowing us to establish that the particular paths or covariances that we constrained to be equal were indeed unequal among the various groups.

RESULTS

Testing the Fit of the Investment Model

A primary goal of this study was to test the fit of the investment model in a large sample of married couples. Multiple-group analyses allowed us to test the fit of the model separately for participants who completed the follow-up (Group 1) and who did not complete the follow-up (Group 2). For participants with follow-up data, the model fit the data quite well, χ^2 (18, N = 983) = 99.52, $p < .001$, CFI = .97, RMSEA = .07. Similarly, the model also provided an adequate fit for participants who did not complete the follow-up questionnaire and who lacked data on stability over time, χ^2 (12, N = 2644) = 218.98, $p < .001$, CFI = .97, RMSEA = .08.

Because Rusbult's model fit the data well in both groups, we then combined the two groups to test a multiple-group model (Model 1) with no constraints. This model served as the baseline for comparison for further models. In this model, parameters were allowed to differ between participants who had follow-up data and those who did not. Model 1 fit the data quite well, χ^2 (30, N = 2644 without follow-up data, N = 983 with follow-up data) = 318.51, $p < .001$, CFI = .97, RMSEA = .05. See Table 2 for a comparison of the fit of Model 1 with all subsequent models.

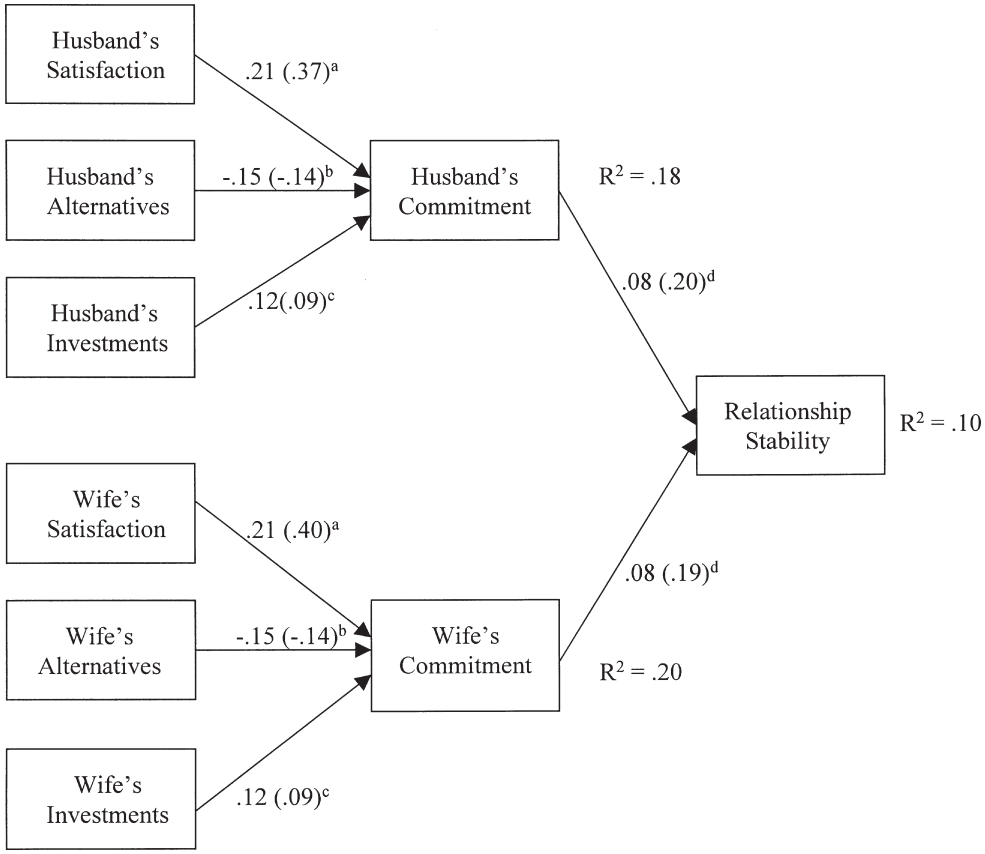
In order to test for differences in the strength of the predictors of commitment among participants who did and did not complete the follow-up, Model 1 was then compared to a model that constrained the paths from each predictor to commitment in the samples of participants with and without follow-up data. Model 2 had fit indexes, c^2 (36, N = 2644 without follow-up data, N = 983 with follow-up data) = 329.08, $p < .001$, CFI = .97, RMSEA = .05. The chi-square difference between the two models did not yield a significant decrement in fit ($\chi^2_{\text{difference}} = 10.57$, df = 6). In order to test for differences in the covariances among the predictors of commitment, Model 2 was then further constrained. In Model 3 we constrained the covariances among all independent measured variables in samples of participants with and without follow-up data. Model 3 had fit indexes, c^2 (45, N = 2644 without follow-up data, N = 983 with follow-up data) = 337.19, $p < .001$, CFI = .97, RMSEA = .04. The chi-square difference test between Model 2 and Model 3 did not yield a significant decrement in fit ($\chi^2_{\text{difference}} = 8.11$, df = 9).

In summary, a comparison of this series of models revealed that participants who completed the follow-up did not differ significantly from participants who had only cross-sectional data in terms of the associations among satisfaction, quality of alternatives, investments, and commitment to a partner. More importantly, multiple fit indexes revealed that the investment model adequately fit the data in this large sample of married couples.

Predicting Commitment

In addition to testing the fit of the entire model, we also tested theory-based predictions that satisfaction, quality of alternatives, and investments are unique predictors of husbands' and wives' commitment to their relationships. Consistent with Rusbult's prediction, we found that these three variables each significantly predicted commitment to a relationship. All paths were significant for both husbands and wives, although satisfaction was a much stronger predictor of commitment than alternatives or investments. Refer to Figure 3 to examine the strength of each predictor. Among couples who completed the follow-up, these three variables together accounted for 16 percent of the variance in commitment for husbands and 22 percent for wives. Similarly, among those couples who did not complete the follow-up, these three variables jointly predicted 14 percent of the variance in commitment for husbands and 17 percent of the variance for wives.

FIGURE 3
A test of the full investment model using data from both husbands and wives



Predicting Relationship Stability

According to Rusbult's model, commitment should directly predict relationship stability. In a study of 167 heterosexual dating couples, Bui et al. (1996) found that men's and women's commitment explained 17 percent of the variance in relationship stability over a 15-year period. Although the 18-month time period in our study was much shorter and the breakup rate was quite low, we still found that husbands' and wives' initial commitment significantly predicted which couples stayed together and which broke up. Together, husbands' and wives' commitment accounted for 10 percent of the variance in marital stability.

To determine whether husbands' and wives' commitment each explained a unique portion of the variance in relationship stability, we performed further hierarchical regression analyses. Specifically, we estimated two separate regression models. In the first model, husbands' commitment was entered on a first step, and wives' commitment was entered on the second step. In the second model, the order was reversed: wives' commitment was entered on the first step, and husbands' commitment on the

second step. In both models, relationship stability served as the dependent variable. By comparing the change in R-squared for the second step of each of the models, we determined the unique proportion of variance in relationship stability accounted for by husbands' and wives' commitment. In the first model, husbands' commitment predicted 7 percent of the variance in relationship stability (R^2 = .07), and wives' commitment predicted an additional 4 percent (R^2 = .04). The addition of wives' commitment to the model produced a statistically significant change, F_{change} (1,930) = 38.17, $p <$ .001. Similarly, in the second model, wives' commitment predicted 8 percent of the variance in relationship stability (R^2 = .08) and husbands' commitment predicted an additional 3 percent (R^2 = .03). The addition of husbands' commitment to the model produced a statistically significant change, F_{change} (1, 930) = 33.08, $p <$ .001. Some readers may note that when path analysis was used, husbands' and wives' commitment together accounted for 10 percent of the variance in relationship stability; when hierarchical regression was used to examine if husbands' and wives' commitment were unique predictors of stability, these two variables accounted for 11 percent of the variance in stability. The difference between these two results is a function of the estimation procedures used with these two statistical techniques: it is common to use maximum likelihood estimation when using path analysis, while coefficients are commonly estimated in hierarchical regression using a least squares estimation process. These additional analyses demonstrated that both husbands' and wives' feelings of commitment to their marriages can influence future relationship stability, and that the combination of predictors from both spouses is better than each alone.

Gender Comparisons

We also compared the strength of the predictors of commitment and stability for husbands and wives. To do this, we tested a model (Model 4) in which the paths from satisfaction, alternatives, and investments to commitment were constrained to be equal for husbands and wives. This model adequately fit the data, χ^2 (49, N = 3,627 men, N = 3,627 women) = 343.00, $p <$ .001, CFI = .97, RMSEA = .04. The chi-square difference test between Model 4 and a Model with no gender constraints (Model 3) did not yield a significant decrement in fit ($\chi^2_{difference}$ = 5.81, df = 4). In the last model (Model 5), we further constrained the covariances among the three predictors of commitment to be equal among husbands and wives. Again, this model fit the data well, χ^2 (52, N = 3627 men, N = 3627 women) = 344.88, $p <$ .001, CFI = .97, RMSEA = .04. The chi-square difference test between Model 5 and the previous model did not yield a significant decrement in fit ($\chi^2_{difference}$ = 1.88, df = 3). This fully constrained model (Model 5) is presented in Figure 3. As previously mentioned, the final model was also tested with the robust method, an estimation technique that is more robust to violations of multivariate normality. The model still fit the data very well, Satorra-Bentler χ^2 (52, N = 3,627 men, N = 3,627 women) = 242.19, $p <$ .001, CFI = .95, RMSEA = .04. Additionally, all path coefficients remained statistically significant.

This set of analyses clearly indicates that there were no differences between husbands and wives in the associations among or the strength of the predictors of commit-

ment and stability. Thus, satisfaction, quality of alternatives, and investments predicted commitment with equal strength for husbands and for wives. Further, husbands' and wives' commitment to maintaining their marriages were equally predictive of whether a couple stayed together or broke up.

DISCUSSION

This study contributes to the body of knowledge on close relationships in several ways. First, we have provided a stringent empirical test of the fit of the investment model of commitment and stability among an unusually large and diverse sample of married couples. Indeed, this is the first study of married couples to use path analysis to assess the overall investment model, rather than testing individual predictions. Second, we demonstrated that both husbands' and wives' commitment to their marriage predicted long-term relationship stability and that the combination of both husbands' and wives' commitment better predicted stability than each individual predictor. These crucial causal links from commitment to stability had not previously been tested among married couples. Third, we replicated previous cross-sectional findings that satisfaction, quality of alternatives, and investments predict men's and women's commitment to their relationships. Two issues deserve further comment.

Predictors of Commitment in Marriage

In the current study, satisfaction, quality of alternatives, and investments were all significant predictors of commitment. Satisfaction was a much stronger predictor of commitment than quality of alternatives and investments among both husbands and wives. Indeed, the regression coefficients of husbands' and wives' commitment predicted by their alternatives and investments are small in magnitude. Additionally, the overall percentage of variance in commitment explained by these three factors was relatively modest, less than 20%. This is lower than in previous studies with dating couples (Bui et al., 1996; Duffy & Rusbult, 1992; Rusbult, 1980, 1983) and in the one previous study of married couples (Rusbult, Johnson & Morrow, 1986).

Both methodological and conceptual issues may have limited our ability to better predict commitment. One methodological issue concerns measurement. Because this study was a secondary analysis of existing data, we had fairly limited measures of satisfaction, alternatives and investments that did not capture the full range of issues involved. Longer, more detailed measures may have been helpful. A second methodological issue concerns the fact that in this sample, husbands and wives reported extremely high levels of commitment and satisfaction. Thus, the relatively small percentage of variance in commitment accounted for by satisfaction, alternatives and investments may be attributed to restricted variance in some of our measures due to ceiling effects.

Conceptual issues may also have limited our ability to predict couples' commitment to a relationship. Clearly, factors other than satisfaction, alternatives, and investments influence husbands' and wives' commitment to their marriages. One direction for

future research is suggested by the work of Johnson and his colleagues (Johnson, Caughlin, & Huston, 1999). They have presented evidence for a tripartite theory that distinguishes three types of commitment: personal commitment (i.e., attraction to the partner, attraction to the relationship, couple identity), structural commitment (i.e., constraints and barriers to leaving the relationship), and moral commitment (i.e., a sense of obligation to continue the relationship). Additional support for this tripartite analysis has been provided in a factor analysis by Adams and Jones (1997). Both Rusbult's investment model and these newer models emphasize the role of attracting forces (satisfaction) and barriers to ending a relationship (alternatives and investments). However, the third component of Johnson's model, moral commitment, is lacking in Rusbult's model. Feelings of moral obligation are probably more relevant to married couples than to dating or even cohabiting couples. Unlike dating couples, married couples have typically made life-long vows to stay together "till death do us part." Future research on marital commitment will benefit from going beyond the investment model to include moral and religious obligations that may bind partners together. More generally, our understanding of commitment would be advanced by systematic empirical comparisons of the usefulness of the investment model versus other models.

Although interdependence approaches such as the investment model are helpful in understanding some of the factors that contribute to marital commitment and stability, they do not offer a comprehensive analysis of all of the forces affecting the permanence of a marriage. The investment model may be particularly useful in explaining why some dissatisfied couples break up but other unhappy couples stay together—because they differ in the extent of their investments and the quality of their alternatives. However, as noted by Karney and Bradbury (1995), interdependence theories do not explain how couples who were once deeply in love decline in satisfaction or what factors push couples to the brink of divorce. Other perspectives that can add to a richer understanding of commitment include behavioral theories which emphasize patterns of interaction in couples, attachment theory which emphasizes individual differences in cognitions about relationships, and crisis theories which emphasize the impact of stressful life events (see Karney & Bradbury, 1995, for a review and critique).

Linking Commitment and Stability over Time

A strength of this study was that it followed married couples over time to demonstrate the causal impact of commitment on subsequent relationship stability. We demonstrated that husbands' and wives' commitment to their marriages predicted relationship stability and that the combination of both spouses' commitment better predicted stability than each individual predictor. However, husbands' and wives' commitment was not a strong predictor of stability, explaining only 10 percent of the variance. Although low commitment was a risk factor for marital dissolution, it was not invariably followed by a breakup. Nonetheless, both the husbands and the wives in all of the 18 couples who broke up reported commitment levels at or below the median. In short,

uncommitted individuals do not invariably end their relationship, but those individuals who did end their marriage were less committed at the initial testing.

The extremely small number of couples who broke up over an 18-month period limited our ability to examine the factors that influence marital dissolution. Bradbury (in press) recently suggested that in order to improve prediction of marital stability and dissolution, research should be conducted with people who are experiencing or likely to experience marital problems. Given research showing that divorce is most common during the first four years of marriage (National Center for Health Statistics, 1990), close relationships researchers should target couples in the early stages of marriage. In contrast, the couples in our sample had been married for an average of almost 14 years, and it is likely that these couples had already successfully navigated the years when they would have been at elevated risk for marital dissolution.

A final reason why commitment was not a particularly strong predictor of stability in this study may be that, over time, some couples were able to rekindle flagging relationships, improving the quality of their interaction and enhancing their commitment. Because we had information from only two time points, we were unable to chart changes over time in satisfaction, quality of alternatives, or partners' investments in their relationship. As a result, we know little about the temporal processes that led some couples to break up and others to stay together. An important direction for research on marital commitment and stability are longitudinal investigations that carefully chart changes in marriages at many time points.

NOTES

Accepted for publication: 13 July, 2000..

Address correspondence to: Emily A. Impett at the Psychology Department, University of California, Los Angeles, Graduate Mail Room, Los Angeles, CA 90095–1563. Email:eimpett@ucla.edu.

This research used the *American Couples*, 1975–1978, data set [made accessible in 1992, computer data]. These data were collected by Philip Blumstein and Pepper Schwartz and are available through the archive of the Henry A. Murray Research Center of Radcliffe College, Cambridge, Massachusetts (Producer and Distributor). This paper is based on work supported under a National Science Foundation Graduate Fellowship awarded to Emily A. Impett and a UCLA Academic Senate Research Grant to Letitia Anne Peplau. The authors are very grateful to Kevin Kim and Jodie Ullman for statistical consulting and Brian Doss for comments on an earlier draft.

REFERENCES

Adams, J. M., & Jones, W. H. (1997). The conceptualization of marital commitment: An integrative analysis. *Journal of Personality and Social Psychology, 72,* 1177–1196.

Beals, K. P., Impett, E. A., & Peplau, L. A. (In press). Lesbians in love: Why some relationships endure and others end. *The Journal of Lesbian Studies*.

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107,* 238–246.

Bentler, P. M. (1995). *EQS structural equations program manual*. Encino, CA: Multivariate Software, Inc.

Blumstein, P., & Schwartz, P. (1983). *American couples*. New York: William Morrow.

Bradbury, T. N. (In press). Research on relationships as a prelude to action. J*ournal of Social and Personal Relationships*.

Bui, K. T., 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.

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Newbury Park, CA: Sage.

Byrne, B. M. (1994). *Structural equation modeling with EQS and EQS/Windows*. Thousand Oaks, CA: Sage.
Duffy, S. M., & Rusbult, C. E. (1992). Satisfaction and commitment in homosexual and heterosexual relationships. *Journal of Homosexuality, 12(2)*, 1–23.
Johnson, M. P., Caughlin, J. P., & Huston, T. L. (1999). The tripartite nature of marital commitment: Personal, moral, and structural reasons to stay married. *Journal of Marriage and the Family, 61,* 160–177.
Karney, B. R., & Bradbury, T. N. (1995). The longitudinal course of marital quality and stability: A review of theory, method, and research. *Psychological Bulletin, 118,* 3–34.
Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonal relations: A theory of interdependence*. New York: John Wiley.
Lin, Y. W., & Rusbult, C. E. (1995). Commitment to dating relationships and cross-sex friendships in America and China. *Journal of Social and Personal Relationships, 12,* 7–26.
National Center for Health Statistics. (1990). Advance report of final marriage statistics. *Monthly Vital Statistics Report, 38, (Suppl),* 1111–1112.
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., Johnson, D. J., & Morrow, G. D. (1986). Predicting satisfaction and commitment in adult romantic involvements. *Social Psychology Quarterly, 39(1)*, 81–89.
Rusbult, C. E., & Martz, J. M. (1995). Remaining in an abusive relationship: An investment model analysis of nonvoluntary dependence. *Personality and Social Psychology Bulletin, 21,* 558–571.
Rusbult, C. E., Martz, J. M., & Agnew, C. R. (1998). The investment model scale: Measuring commitment level, satisfaction level, quality of alternatives, and investment size. *Personal Relationships, 5,* 357–391.
Satorra, A., & Bentler, P. M. (1988). *Scaling corrections for statistics in covariance structure analysis*. Los Angeles: UCLA Statistics Series, No. 2.
Steiger, J. H., & Lind, J. C. (1980, May). *Statistically based tests for the number of common factors*. Paper presented at the annual meeting of the Psychometric Society, Iowa City, IA.
Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York: John Wiley.