INTERPERSONAL RELATIONS AND GROUP PROCESSES

The Role of Attributions in the Development of Dating Relationships

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In this study, we examine the role of attributions in the context of dating relationships. A large sample completed a questionnaire comprising structured ratings and a free-response relationship description. As expected, cognitive or attributional activity was more frequent within relationships when they were in the early stages, when important choice points or changes were occurring, and when the relationships were perceived as unstable. Also as predicted, subjects who reported higher relationship happiness, commitment, and love for their partners tended to describe the relationship in more interpersonal terms, to rate the causal inputs of the partners as equal, and to attribute lower external attributions for relationship maintenance. Finally, some evidence was obtained that attributions for relationship maintenance are causally related to relationship happiness over a 2-month period. The results are discussed in terms of the relationship between cognitive processing and the development of dating relationships.

Love and intimate relationships are of central importance in people's lives. Hence it is hardly surprising that on occasions we invest considerable cognitive activity in evaluating the personalities of our prospective partners, predicting the future of our relationships, trying to understand why they are deteriorating or becoming more successful, and so on.

In recent years, particular interest has focused on the role that causal attribution processes play in close relationships (for reviews see Berley & Jacobson, 1984; Fincham, 1983, 1985a; Newman & Langer, in press). Two important and related questions often arise in this field: When do attributions spontaneously occur in relationships, and what influence do attributions have on such factors as relationship happiness, commitment, or love for one's partner? This study deals with both questions by using a large sample of persons involved in current dating relationships and examining these relationships over time.

Timing of Cognitive and Attributional Activity in Close Relationships

Fincham (1985a) and Newman and Langer (in press) have hypothesized that the timing and occurrence of attributional

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activity within dating relationships will be related to the stage the relationship has reached. When people first start dating, they will probably be in a heightened state of cognitive and attributional vigilance because of the ambiguity involved, the uncertain status of the relationship, and the importance of decisions and predictions regarding the relationship. Cognitive and attributional activity should be relatively heavy during this period. By contrast, attributional activity should diminish as the relationship enters the more stable maintenance stage accompanied by the development of permanent interpersonal understandings, behavioral predictions, and personality impressions. Subsequent increases in attributional thinking may be initiated by important changes in the relationship, such as a rapid decrease in happiness or a critical choice point being reached in the relationship, for example, Do we split up? Do we get engaged? Should we go steady? Should we have sex? and so on. This analysis assumes, quite plausibly, that an increase in general conscious analysis of the relationship will typically be accompanied by an increase in attributional thinking.

The violation of expectations has often been cited as a prime factor in motivating attributional activity across different behavioral domains (Pyszczynski & Greenberg, 1981; Weiner, 1985; Wong & Weiner, 1981), although one recent study failed to find this effect for expectation disconfirmation within marital relationships (Holtzworth-Munroe & Jacobson, 1985). In dating relationships, expectations may be most frequently upset when the behavior of one of the partners is unpredictable or if the relationship is volatile and unstable. We expected that in such circumstances cognitive and attributional activity would be more frequent.

Journal of Personality and Social Psychology, 1987, Vol. 53, No. 3, 481-489 Copyright 1987 by the American Psychological Association, Inc. 0022-3514/87/\$00.75 To summarize this section, we predicted that both conscious cognitive activity and attributional activity would be more common in (a) the beginning stages of the relationship, (b) when important changes were taking place or critical choice points were reached in the relationship, and (c) when the relationship was perceived as unstable or unpredictable.

Influence of Attributions on Relationship Happiness, Commitment, and Love

In attribution theory and research, the internal-external dimension is typically assumed to occupy a central position in attribution schemata (Ross & Fletcher, 1985). Applied to relationships, however, the traditional internal-external dimension leads to some problems (Newman, 1981). At the individual level, attributions made to one's partner are external. At the relationship level, however, where the relationship becomes the unit of analysis, factors outside the relationship become external attributions. Moreover, attributions to oneself or one's partner may be directed at the individual (e.g., I am a bad-tempered person; she is an extrovert) or focus on the interaction between the couple (e.g., we communicate well; he gets uptight when I don't have his meals cooked on time). These latter attributions have been dubbed interpersonal attributions by Newman (1981). Previous research has sometimes confounded these attributional categories (e.g., Seligman, Fazio, & Zanna, 1980).

A second important distinction that is often blurred in attribution work is between the process of trait/dispositional attribution and causal attribution. For example, I may attribute shyness to someone simply because I notice his or her behavior or I want to predict his or her behavior in a different situation. To qualify as a causal attribution, shyness needs to be used as a cause for some behavior or experience. In this article, we use the term *attribution* to apply only to causal attributions.

Some research has examined attributions for specific behaviors within relationships (e.g., what caused my wife to forget my birthday?), whereas other research has focused on causal attributions for the relationship as a general unit (e.g., what causes my relationship to be happy?). There is good evidence from both types of research that the internal-external dimension is pivotal in the relation between causal attributions and relationship happiness or love.

To take the former type of attributional research first (behaviors within relationships), studies with married people have found that distressed spouses, compared with nondistressed spouses, are less likely to attribute their partners' positive behaviors to internal causes but more likely to attribute their partners' negative behaviors to internal causes (Fincham, 1985b; Fincham, Beach, & Nelson, in press; Holtzworth-Munroe & Jacobson, 1985; Jacobson, McDonald, Follette, & Berley, 1985). It seems likely that such attributional patterns serve to maintain and reinforce people's current attitudes toward their relationships. Research examining attributions in dating relationships is more scanty. Thompson and Kelley (1981) reported that subjects who were more satisfied with their relationships gave more responsibility to their partners for positive events. In line with these findings, we expected to find in our research that subjects reporting higher levels of happiness, commitment, and

love would report that both they and their partners were more responsible for positive behaviors but were less responsible for negative behaviors.

We now consider the second type of attributional research (attributions for the relationship as a unit). In a rare experiment in this field, Seligman et al. (1980) found that dating partners who were encouraged to make attributions to external causes for the relationship reported loving their partners less, compared with subjects who were encouraged to make attributions to the internal dynamics of the relationship (but for a failure to replicate this result in a correlational study, see Rempel, Holmes, and Zanna, 1985). Other evidence suggests that people who are happy in their relationships use more interpersonal attributions (Lloyd & Cate, 1985; Newman & Langer, in press).

These findings suggest that relationship happiness and love will tend to be at their highest when the cognitive focus of the participants is on the relationship itself and the dynamic interplay between the partners. Why should this be so? The explanation we develop here is based on the assumption that individuals in relationships are often perceived and thought of in relation to one another. If the couple becomes the natural cognitive unit of analysis (a small cohesive group rather than two separate individuals), then it is plausible to expect that descriptions and attributions for behaviors within relationships will often center on the interaction between partners.

However, this tendency to focus on the interaction between partners seems likely to vary according to the stage the relationship is in. At the beginning of a relationship, where it is more likely to be seen in casual terms, there should be a tendency for people to perceive each other more as individuals and less in terms of each person in relation to one another: to think in terms of "I" and "he or she" rather than "we." Perhaps also at the beginning stages, people are more interested in judging and evaluating their partners and hence focus less on interpersonal interaction.

A second relationship stage that seems likely to produce a shift away from interpersonal attributions is a relationship that is unhappy or deteriorating. As noted previously, there is evidence that people in unhappy relationships, compared with people in happy relationships, place more emphasis on external causes impinging on the relationship. In addition, when the relationship is unhappy, the participants may be motivated to analyze more closely problems or defects in each other's personalities. These tendencies should produce a shift away from interpersonal attributions toward causes residing internally within each individual or causes outside the relationship.

A related issue addressed in this study concerns the perceived causal input of each partner for relationship maintenance. Consistent with our theorizing, we expected that subjects who perceived both partners as making equal causal inputs would report being happier, more committed, and more in love. Conversely, high or low levels of actor (or partner) causal inputs should be associated with reduced happiness, commitment, and love.

To summarize our hypotheses from this section, we predicted that subjects reporting higher relationship happiness, commitment, and love for their partners would (a) report more actor responsibility for positive actor and partner behaviors and report less actor responsibility for negative actor and partner behaviors, (b) be less likely to attribute the maintenance of the relationship to external factors, (c) describe their relationship in more interpersonal terms, and (d) be more likely to perceive the partners as contributing equal causal inputs for relationship maintenance. Finally, we expected that subjects who had been dating longer would describe their relationships in more interpersonal terms. We proposed to test these hypotheses by using both a free-response relationship description and structured attribution ratings.

Influence of Attributions Over Time

To our knowledge, there has been no research dealing with the impact of attributions over time in dating relationships. In this study we contacted subjects 2 months after the initial administration of the questionnaire and reassessed their relationship attributions, relationship happiness, and love for partner. We predicted that subjects who reported lower external attributions for relationship maintenance and perceived the causal inputs of the partners as more similar at Time 1 would report higher levels of relationship happiness and love for partner at Time 2 (partialing out the effects of relationship happiness and love for partner at Time 1). We also planned to test the possibility that the causal relationship might flow in the opposite direction, between relationship happiness and love for partner at Time 1 and the attributions at Time 2.

In summary, the aims of this study were to examine the timing and occurrence of cognitive and attributional activity within relationships and the influence that attributions have on relationship happiness, commitment, and love.

Method

Subjects

One hundred female and 31 male undergraduate students were recruited from the subject pool at Illinois State University to participate in this study.¹ The criteria for participation were that subjects were currently involved in a heterosexual dating relationship (having dated the person at least twice) and that they should not be living with their partner.

Procedure

Data collection occurred in two phases separated by a 2-month interval. In Phase 1, the subjects completed various questionnaires in small groups (6–10 students). The subjects were assured that the questionnaires were completely anonymous and confidential. After completing the questionnaires, subjects were asked to supply their telephone numbers and first names so that they could be contacted at a later time. All but 1 female subject agreed. Of the 130 subjects who were contacted by telephone after 2 months elapsed, 12 could not be traced, 23 reported the relationship had discontinued, and 95 reported the relationship was continuing. An abridged version of the initial questionnaire was completed by telephone at this time.

Questionnaire: Initial Assessment

The first part of the questionnaire initially completed by subjects gathered basic demographic information: age, sex, and length of time dating (in weeks). The second section comprised the free-response description of the relationship. The third section consisted of various structured questions concerning the relationship.

Free-Response Description of the Relationship

Subjects were instructed to "Describe your relationship in your own words. Write down any thoughts or feelings you have about you and your dating partner. Write down whatever comes to mind. Take as much time as you need."

Relationship Description Targets

Each unit (sentence or phrase) in the free responses was coded into one of the following four categories. Actor descriptions were items directed at the actor (e.g., I tend to be a selfish person). Partner descriptions were directed at the partner (e.g., he is a very cheerful person). Interpersonal descriptions included items centered on the relationship itself (e.g., we like doing things together) or specifying some interactional process (e.g., she is very aware of my problems and so I confide a lot in her). Descriptions that involved a reference to both partners were not necessarily coded as interpersonal. For example, descriptions such as "I get really angry with him" and "he was intolerant towards my friends" were coded as actor or partner items. External descriptions included any item not directed at the relationship (e.g., his previous girlfriend caused trouble; his father used to hassle him). Two independent raters coded the free responses by using this taxonomy. All disagreements were discussed and resolved. Correlations between the number of items coded into each category by each rater prior to discussion for each subject were used to assess interrater reliabilities. The results were as follows: actor descriptions, r = .96; partner descriptions, r = .94; interpersonal descriptions, r = .96; and external descriptions, r = .65. As can be seen, the agreement between raters was good for the first three categories. Because of the low rate of external descriptions produced (M = 2.7%), this category was dropped from further analyses.²

¹ A series of multiple regressions was run to test for the presence of significant sex differences for all independent and dependent variables reported in this study. No significant interactions between sex and any independent variable were found. As a separate check, all correlations were computed with the full sample but with sex partialed out. The resultant correlations were very similar to the correlations obtained when sex was not partialed out. Accordingly, we decided to use the full sample in computing the correlations and not to analyze each sex separately. A cautionary note here is that these tests for sex differences are rather weak given the uneven split between the sexes. It is possible that sex differences may have emerged if a larger sample of men had been used.

² Percentage hit rates cannot be reported as the rater reliability data were coded only in terms of the number of descriptions in each category. One problem with this method is that it is possible for raters to disagree with each other systematically and still end up with the same number of items in each category. However, the coding procedure used is relatively straightforward. It seems implausible that raters would confuse self-descriptions with partner descriptions. On the other hand, it is possible that one rater may have consistently coded some interpersonal descriptions as self- or partner descriptions. The mean number of descriptions in each category obtained for each rater was, however, very similar for all categories. Hence, we believe the high interrater correlations are reflective of high rater agreement.

Indirect Measure of Spontaneous Attributions

In addition to being coded in one of the previous categories, descriptions that were causal explanations were coded as causal attributions (e.g., he lost confidence in himself because of the accident; the relationship went downhill because she could not communicate). The correlation between the two raters for causal attributions was .68. Hence, the interrater agreement was considerably weaker for this variable than for the description targets already noted.

Relationship Happiness, Commitment, and Love for Partner

All questions used 7-point scales. Relationship happiness was assessed with one question: "How happy are you in general with your relationship?" (end points very happy and very unhappy).

Level of commitment was measured with two questions: "How likely is it that you will be dating your partner in 6 months' time?" and "How likely is it that you will marry your partner?" (end points *not likely at all* and *very likely*). These two measures obtained a correlation of .77 and were added together to form one variable, commitment to relationship.

Degree of love was measured with one question: "How much do you love your partner?" (end points very much and not at all). In addition, subjects completed Rubin's (1973) Loving Scale.³

General Cognitive and Attributional Activity

We did not consider it likely that subjects could distinguish between attributional thinking and general cognitive activity when asked direct questions concerning their relationships. Accordingly, subjects were asked on 7-point scales "How much time have you spent in the last 2 weeks analyzing, thinking about, or trying to understand your partner's behavior?" and "How much time have you spent in the last 2 weeks analyzing, thinking about, or trying to understand your relationship?" (end points *a lot of time* and *no time at all*). These two questions obtained a correlation of .65 and were added together to form one variable, time analyzing the relationship.

General Cognitive and Attributional Activity Concerning Choice Points

Two questions were asked on 7-point scales: "How much time in the past 2 weeks have you spent thinking about the possibility that the relationship might end or should end?" and "How much time have you spent in the last 2 weeks thinking about the possibility that the relationship might become more serious and committed, for example, going steady, becoming engaged, living together, getting married, and so forth?" (end points a lot of time and no time at all).

Perceived Predictability and Stability of Relationship

Subjects rated their relationship on three 7-point semantic differential scales anchored with the following end points: no doubt or uncertainty and full of doubt and uncertainty; very predictable and unpredictable; very stable and very changeable. Correlations between these variables were .42, .46, and .53. The three variables were summed to produce one variable, stability of relationship.

Attribution Ratings

Actor versus partner causal attribution for relationship maintenance. Subjects were instructed as follows: Think about the causes for your relationship—why you are dating each other. Consider the part you play in the relationship as compared to your partner. Who is more responsible for maintaining the relationship? Divide 100 into two parts that reflect the amount of responsibility each partner has in maintaining the relationship.

External attributions for relationship. Subjects were asked the following:

Think about the importance of all the factors that are external to the relationship, for example, your partner's status, possessions (e.g., car and/or money, friends, what your friends think of him/ her, family reactions, etc.). Rate the importance of these external factors in maintaining the relationship.

This was measured on a 7-point scale ranging from very important to very unimportant.

Responsibility for actor and partner behaviors. The last attribution measure was included to provide a more content-specific set of items. The items and method used were adapted from Thompson and Kelley (1981). Sixteen behaviors or activities were listed. Subjects were required to make separate judgments concerning the extent to which each partner was responsible for each item on 7-point scales ranging from *fully responsible* to *not responsible at all*. Eight of the items were positive (e.g., providing emotional support), and eight were negative (e.g., criticizing or complaining about partner). Factor analyses and internal reliability analyses confirmed the internal reliability of the four subscales measuring positive and negative behaviors for both actor and partner behavior. The items were summed for each subscale to produce four separate scores.⁴

Follow-Up Assessment

An abridged version of the initial relationship questionnaire was administered via telephone 2 months after the first wave of data was collected. Four questions were asked, using the same format and wording as in the initial questionnaire: (a) the two attribution questions concerning the causal input of both partners and the causal importance of external factors in maintaining the relationship and (b) the questions measuring relationship happiness and love for partner.⁵

Results

Subjects reported generally high levels of relationship happiness, commitment, and love on 7-point scales: relationship happiness, M = 6.0 (SD = 1.2); likelihood of dating in 6 months,

³ We decided to use the single love-for-partner question rather than Rubin's scale as a measure of love for a number of reasons. First, the zero-order correlations between the single love question and the other variables in this study were generally higher than the equivalent correlations with the love-scale scores. Second, the single love question attained good convergent validity correlations with relationship happiness and commitment (see Table 2) and showed good reliability across the 2-month period (r = .71).

⁴ A copy of the complete scales as well as full details of the associated statistical analyses are available from Garth J. O. Fletcher.

⁵ Two individual difference measures were also administered: the Self-Monitoring Scale (Snyder, 1974) and the Attributional Complexity Scale (Fletcher, Danilovics, Fernandez, Peterson, & Reeder, 1986). The results related to these scales and an analysis of the best predictors of relationship dissolution are not reported here because of lack of relevance, but they are reported elsewhere (Fletcher, Fincham, Cramer, & Heron, 1986).

Table I	
Correlations Between Spontaneous Attributions, T	ime
Analyzing Relationship, and Selected Variables	

Selected variables	Spontaneous attributions	Time analyzing relationship
Number of weeks dating	08	21**
Time thinking about separation Time thinking about greater	.18*	.35***
commitment in relationship	.01	.21**
Stability of relationship	19*	25**

Note. Higher scores represent higher reported levels for each variable. * p < .05. ** p < .01. *** p < .001.

M = 6.1 (SD = 1.4); likelihood of marriage, M = 5.0 (SD = 2.0); and love for partner, M = 6.1 (SD = 1.5). The mean number of weeks reported dating was 69.4, with considerable variance in the data (SD = 71.5 weeks). Before carrying out the correlational analyses with this variable, time dating was transformed to log functions in order to normalize the skewed distribution (the usual procedure with this type of data).

Timing of Cognitive and Attributional Activity Within Relationships

The spontaneous production of causal attributions in the relationship free-response descriptions was relatively low (M = 0.9, SD = 1.3). The correlations with this variable can be seen in Table 1. In line with predictions, spontaneous causal attributions occurred more often in the relationship description when more time was spent considering separation and the relationship was less stable. Against predictions, subjects producing more attributions did not report spending more time thinking about greater commitment and had not been dating for a shorter period.

As expected, more time was reported analyzing the relationship when subjects had been dating for less time, when critical choice points were being considered such as separation or greater commitment, and when the relationship was perceived as less stable (see Table 1).

Relations Between Attributions, Relationship Happiness, Commitment, and Love: Initial Assessment

All results in this section refer to data from the first administration of the questionnaire. As expected, the dependent variables (relationship happiness, commitment, and love) were moderately to strongly positively correlated (see Table 2).

All other correlations relevant to this section can be seen in Table 3. First, as predicted, subjects reporting higher relationship happiness gave significantly more responsibility to themselves and their partners for positive behaviors and significantly less responsibility to themselves for negative behaviors. Those who expressed greater commitment and who loved their partner more took more responsibility for positive events. However, against predictions, neither commitment nor love for partner was significantly related to any of the other responsibility subscales.

Second, as predicted, subjects who gave more external attributions for relationship maintenance reported significantly less happiness, less commitment, and lower levels of love.

Third, as expected, subjects who described their relationship in more interpersonal terms in the free-response relationship descriptions reported more happiness, more commitment, and more love.

An additional prediction here was that subjects who used more interpersonal descriptions would have been dating for more time. This prediction was confirmed, with a significant positive correlation between weeks dating and percentage of interpersonal descriptions (r = .22, p < .01). However, the number of weeks dating was also quite strongly and positively correlated with love (r = .53) and commitment (r = .56), though not significantly correlated with happiness. Therefore, the possibility arises that subjects who reported less happiness, commitment, and love produced fewer interpersonal descriptions because they had been dating for a shorter period of time. To test this possibility, correlations were computed between the percentage of interpersonal descriptions and happiness, commitment, and love but partialing out the effects of time dating. The partial correlations remained positive and significant for happiness (r = .33, p < .001) and love (r = .31, p < .001) but dropped to nonsignificant levels for commitment (r = .07). These results suggest that the tendency for subjects who reported higher levels of happiness and love to use more interpersonal relationship descriptions cannot simply be explained by the fact that happier subjects were in longer term relationships. Interpersonal relationship descriptions were the most common type found in the free-response descriptions (M = 56.9%), followed by actor descriptions (M = 29.5%) and partner descriptions (M = 10.9%).

The actor versus partner attribution measure required subjects to apportion causal responsibility to themselves and their partners for relationship maintenance. The correlations in Table 3 show significant linear relationships between the amount of actor attribution for relationship maintenance and the variables of happiness, commitment, and love. However, we expected that the relations between these variables would be curvilinear; that is, subjects reporting high relationship happiness, commitment, and love would be more likely to perceive each partner as contributing equal causal inputs for relationship maintenance, whereas low and high actor (or partner) attribution would be associated with lower levels of happiness, com-

Table 2

Correlations Between Relationship Happiness, Commitment to Relationship, and Love for Partner

Variable	1	2	3
 Happiness Commitment Love 	_	.55	.52 .75

Note. All variables are scored in a positive direction.

Correlations Between Relationship Happiness, Commitment to Relationship, Love for Partner, and the Attribution Variables

Attribution variable	Happiness	Commitment	Love
Actor responsibility-positive events	.35***	.21**	.23*
Partner responsibility-positive events	.25**	.17*	.06
Actor responsibility-negative events	26**	.00	.03
Partner responsibility-negative events	34***	.02	.05
External attribution for relationship maintenance		28**	23**
Actor vs. partner attribution for relationship maintenance	.15*	.22**	.39***
% interpersonal relationship descriptions in free responses	.33***	.17*	.37***
% actor relationship descriptions in free responses	27**	14	33***
% partner relationship descriptions in free responses	15*	07	15*

Note. All variables are scored in a positive direction. Higher scores for the actor versus partner attribution variable represent higher attribution percentages given to the actor.

* p < .05. ** p < .01. *** p < .001.

mitment, and love. To test these predictions, the relations between the self versus partner attribution rating and relationship happiness, commitment, and love for partner were tested for the presence of quadratic components by using multiple regression techniques (Cohen & Cohen, 1983). The results showed the existence of significant quadratic components for relationship happiness, t(1, 128) = 4.5, p < .01; commitment, t(1, 128) =2.1, p < .05; and love, t(1, 128) = 2.66, p < .01. The associated multiple correlations (including the linear and quadratic components) were .41 for happiness, .28 for commitment, and .46 for love. The regression equations for each variable, including the quadratic components, were used to plot regression lines, and these are shown in Figure 1.⁶ As can be seen, the curves approximate the expected curvilinear relationships previously described.

Relations Between Attributions and Relationship Perceptions Across Time

Of the subjects interviewed 2 months after the initial assessment, 95 reported their relationships were continuing. For these subjects, relationship happiness and love for partner were quite strongly correlated across the 2-month period (r = .53 and r = .71, respectively). The attributions for relationship maintenance were also positively correlated across time (r = .33 for the external attribution measure and r = .50 for the actor vs. partner attributions for relationship maintenance).

A path analysis model was used to analyze the data. In the first analysis, we ran two regressions. The two attribution maintenance variables at Time 1 (actor vs. partner attributions and external attribution for relationship measures) were regressed onto relationship happiness and love for partner (Time 2), partialing out the effects of relationship happiness or love for partner at Time 1. The results revealed nonsignificant beta weights for the attribution measures. However, as predicted, the relationship between actor versus partner attributions and relationship happiness and love at Time 1 were found to be significantly curvilinear (see Figure 1). We therefore ran two further regressions to test whether there were significant curvilinear relationships over time between actor versus partner attributions at Time 1 and relationship happiness and love at Time 2 (partialing out the effect of relationship happiness or love at Time 1). The results were not significant for love for partner. However, for relationship happiness the associated quadratic component was significant, t(1, 91) = 2.0, p < .05. The regression curve between actor versus partner attributions at Time 1 and relationship happiness at Time 2 (with relationship happiness at Time 1 partialed out) is shown in Figure 1.⁷ The curve is very similar to the equivalent regression curve at Time 1. Subjects who perceived both partners as providing equal causal inputs for relationship maintenance at Time 1 were happier 2 months later.

To examine the impact of happiness and love at Time 1 on the attribution ratings at Time 2, we used the same statistical procedures as described previously. None of the results reached significance levels. This suggests that attributions may have more influence on relationship happiness than vice versa. In addition, all of the attribution variables shown in Table 3 that obtained significant correlations with happiness and love at Time 1 were assessed for their impact on happiness and love at Time 2, using the same path analytic technique. The zero-order correlations between the attribution variables (Time 1) and happiness and love at Time 2 were similar to those obtained between the same variables measured at Time 1 (though somewhat attenuated). However, none of these Time 1 attributional variables was significantly related to happiness and love at Time

⁶ The regression lines were plotted by using the regression coefficients obtained from the simultaneous regression equations used for the quadratic tests. The relevant equation is $Y = B_1X + B_2X^2 + C$, where B_1 and B_2 represent the linear and quadratic regression coefficients, respectively (see Cohen & Cohen, 1983, for further details).

⁷ The procedure for plotting this regression curve was exactly the same used for the other curves shown in Figure 1. The one difference in this case was that the influence of happiness at Time 1 was partialed out before calculating the regression coefficients, but again the regression coefficients from the simultaneous regression equation were used. In this case, the dependent variable was happiness (Time 2) and the three independent variables were happiness (Time 1), the actor-attribution percentage rating (Time 1), and the same actor-attribution percentage rating squared (the quadratic component).

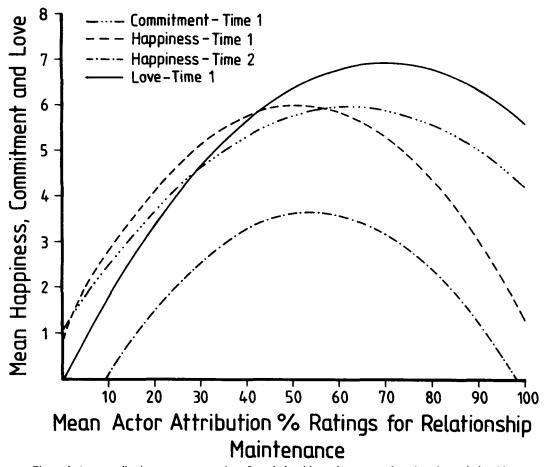


Figure 1. Actor-attribution percentage ratings for relationship maintenance plotted against relationship happiness, commitment, and love for partner including the quadratic components (the curve for relationship happiness at Time 2 was calculated with relationship happiness at Time 1 partialed out).

2 when the effects of happiness and love at Time 1 were partialed out. In short, the influence of all the attribution variables (Time 1) on happiness and love at Time 2 appear to have been exerted indirectly through the amounts of happiness and love existing 2 months earlier (except for actor vs. partner causal attributions for relationship maintenance, as previously noted).

Discussion

Timing of Cognitive and Attributional Activity Within Relationships

Consistent with our predictions, subjects reported trying to analyze and understand their relationships more when they had been dating for less time, when important choices were being considered (to separate or become more committed), and when the relationships were perceived as unstable. Trying to understand and analyze one's relationship, however, covers a multitude of possible cognitive aims and processes. At different times people may be interested in predicting the course of their relationships, changing their partners' behaviors, judging their partners' personalities, explaining events within their relationships, and so on. The attribution process is not necessarily involved in thinking about one's relationship.

Our results concerning the spontaneous production of attributions suggest that the attribution process is more likely to be invoked when relationships are unstable or when people are considering separation. These findings are consistent with the evidence that people put considerable cognitive effort into explaining the breakdown of relationships (e.g., Fletcher, 1983). Such circumstances within relationships seem to provide high levels of motivation to explain the behavior of either partner. Against predictions, spontaneous attributions were not more prevalent in the beginning stages of the relationship or when increased commitment was being considered. Perhaps in these situations explanation is not the dominant concern of the individuals concerned. In the early stages of relationships, people may be more interested in assessing their partners' personalities or determining their own attitudes to their partners (e.g., do I really like him or her?). Alternately, when deciding whether to increase commitment (e.g., get married), people may be more interested in predicting how successful the relationship will be. Of course, the attribution process may be involved in the course

of answering such questions, but it is not necessarily the dominant process.

These explanations are speculative and rely on a single measure of spontaneous attributional thought. Clearly, there is a need to replicate these findings by using different techniques to examine the occurrence of spontaneous attributions in relationships (Weiner, 1985).

Link Between Attributions, Happiness, Commitment, and Love

As hypothesized, subjects who were happier, more committed, and more in love also tended to perceive both partners as contributing equal causal inputs for relationship maintenance. Moreover, the happy subjects described their relationships in more interpersonal terms. These results are consistent with equity theory, which holds that inequity can arise if the participant's ratio of outcomes to inputs is larger or smaller than that of his or her partner. Research results have generally confirmed a related postulate in equity theory that people who perceive themselves as underbenefitted or overbenefitted in relationships tend to be more unhappy (Hatfield, Traupmann, Sprecher, Utne, & Hay, 1985).

It seems clear from our results that the way relationship-related information is stored and retrieved is related to actor judgments of happiness, commitment, and love within relationships. When the relationship and the interaction between partners is the cognitive focus, this is generally associated with higher levels of happiness, commitment, and love. Alternately, happiness, commitment, and love are lower when cognitive attention focuses on the behavior and personality of either individual without explicit reference to the partner or when attention shifts to the presence of external forces acting on the relationship.

It is plausible to postulate causal connections in both directions here in relationship development. Changing levels of happiness, commitment, or love within relationships could produce concomitant shifts in attributional patterns, or changes in attributions may cause shifts in perceptions of happiness, commitment, or love. Although our data were correlational, analysis of the impact of attributions across time provided some evidence that perceptions of both partners as contributing similar causal inputs for relationship maintenance at Time 1 caused higher levels of relationship happiness 2 months later. However, by far the best predictors of relationship happiness and love at Time 2 were relationship happiness and love reported 2 months earlier.

In attempting to understand the development of close relationships, we have already indicated the need to distinguish between different cognitive processes and aims. It is also important that we distinguish between different global evaluations or judgments of relationships made by the naive perceiver (see Sternberg, 1986). In this study, we measured three such judgments: happiness, commitment, and love. As expected, these three variables had substantial positive correlations with each other. Nevertheless, they diverged in interesting ways in how they were related to the attribution variables. For example, subjects who perceived their partners as primarily responsible for maintaining the relationships reported low levels of happiness, commitment, and love. By contrast, subjects who attributed the bulk of the responsibility for relationship maintenance to themselves reported high levels of love, moderate levels of commitment, and low levels of happiness (see Figure 1). An extreme example of this pattern is unrequited love. We would expect an individual suffering from such a condition to express a high level of love, attribute the maintenance of the relationship entirely to himself or herself, but be thoroughly unhappy. It would also not be surprising if happiness, commitment, and love tended to develop in characteristically different ways as relationships progress through different stages. For example, our results showed that levels of commitment and love increased as subjects had been dating longer, whereas length of time dating was unrelated to relationship happiness.

In general, relationship happiness was more strongly related to the responsibility accepted for actor and partner behaviors than were love or commitment (see Table 3). For example, as predicted, subjects who reported that both partners were more responsible for negative behaviors also reported being more unhappy. However, against predictions, judgments of commitment and love were unrelated to how much responsibility was accepted for negative behaviors for either actor or partner. One explanation for this may be the greater variability and malleability of actor judgments of relationship happiness as compared with commitment or love. The everyday concepts of love and commitment seem to involve an implicit stability and robustness that can weather bad times or problems in a relationship. Conversely, actor attributions of happiness may be more variable and therefore more sensitive to the influence of such factors as objectionable behaviors. Whatever the merits of this explanation, our results highlight the need to distinguish conceptually and measure independently such factors as happiness, commitment, and love.

In conclusion, we think this research replicates and extends previous research concerning the role that causal attributions play in the development of close relationships. Charting more precisely the interaction between social cognitive processes and the behaviors of people in the development of relationships remains a continuing challenge for social psychologists.

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