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COMMITMENT PROCESSES IN CLOSE RELATIONSHIPS: AN INTERDEPENDENCE ANALYSIS

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This article employs interdependence theory as a means of understanding how and why some relationships survive difficult times whereas other promising relationships end. Interdependence theory makes important distinctions between satisfaction and dependence. These distinctions are extended in the investment model, a theory of the process by which individuals become dependent on and committed to their relationships. The investment model suggests that dependence increases not only as a consequence of increasing satisfaction, but also because available alternatives are perceived to be poor and numerous important resources are invested in a relationship. Subjective commitment summarizes the nature of an individual's dependence on a partner, and represents broad, long-term orientation toward a relationship. Strong commitment not only makes individuals more likely to remain with their partners, but also promotes a variety of relationship maintenance behaviors such as adaptive social comparison and perceived relationship superiority, derogation of attractive and threatening alternatives, effective management of jealousy and extrarelationship involvements, willingness to sacrifice for the good of a relationship, and tendencies to accommodate rather than retaliate when a partner behaves poorly.

At one time or another, most of us have wondered why some relationships are so much happier than others, and why some couples break up whereas others do not. In fact, many people perceive these two questions to be closely related, if not virtually identical — to some observers, it might appear self-evident that individuals who are pleased with their relationships should also be

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more likely to remain with their partners. Certainly, many social scientists seem particularly intrigued by questions concerning relationship happiness: for example, why individuals are initially attracted to one another, fall in love and come to feel satisfied with their relationships. Indeed, much of the existing research on close relationships emphasizes these issues (for reviews, see Berscheid, 1985; Clark & Reis, 1988).

Unfortunately, understanding why people love their partners or feel satisfied with their relationships is not sufficient to explain how and why some relationships persist through both good times and difficult times, whereas other promising relationships fall apart. Even satisfying relationships can break up when individuals are not strongly committed, and, conversely, an individual can feel strongly dependent on a relationship without feeling especially happy with it. Thus, it seems clear that we need a general theory that can not only explain why some relationships are happier and more satisfying than others, but can also account for the development of dependence and commitment. We believe that interdependence theory (Kelley & Thibaut, 1978; Thibaut & Kelley, 1959) stands as the most fully developed model of dyadic relationships, and that this orientation offers a comprehensive approach to understanding satisfaction, dependence and commitment in close relationships.

This article analyzes commitment and related phenomena using concepts from interdependence theory. First, we briefly describe interdependence theory, with particular attention to the concepts of satisfaction and dependence. Then we introduce the investment model, which explains commitment processes by reference to the structure of an individual's interdependence with a partner. In a third section we propose that subjective commitment is central to understanding why, when and how individuals attempt to maintain their relationships. To illustrate how individuals with long-term, committed orientations act so as to maintain stable, healthy involvements, this section also reviews theory and research regarding several consequences of commitment, including relationship maintenance phenomena such as motivated social comparison, willingness to sacrifice, derogation of alternatives and tendencies to accommodate rather than retaliate when a partner behaves poorly. In a concluding section we consider fruitful directions for future work and discuss the relevance of our approach for the broader literature on behavior in close relationships.

Interdependence theory: a brief overview

Interdependence theory (Kelley, 1979; Kelley & Thibaut, 1978; Thibaut & Kelley, 1959) focuses on the *interaction between partners* as the essence of all close relationships. 'By interaction it is meant that [individuals] emit behavior in each other's presence, they create products for each other, or they communicate with each other' (Thibaut & Kelley, 1959: 10). Interaction yields outcomes for individuals in the forms of rewards and costs such as pleasure, gratification, distress, pain and embarrassment. In newly formed relationships, the full range of possible outcomes will not immediately be evident to interacting partners, since partners sample the range of available rewards and costs through the course of extended interaction. All so-called social exchange theories, including interdependence theory, share the basic premise that individuals initiate and maintain relationships at least in part because of the benefits of interactions in a relationship (Blau, 1967; Homans, 1961).

Interaction preferences, behavioral choices and relatively more global feelings about relationships are shaped in part by the direct, hedonistic effects that are anticipated as a consequence of interaction, defined in terms of the balance of rewards and costs. The rewards of a relationship can be defined in terms of the 'pleasures, satisfactions, and gratifications the person enjoys' as a consequence of involvement (Thibaut & Kelley, 1959: 12). Costs are defined in terms of the 'factors that operate to inhibit or deter the performance of a sequence of behavior' (e.g. effort, embarrassment or anxiety, conflicting forces or competing response tendencies [Thibaut & Kelley, 1959: 12]).

However, preferences and choices frequently reflect more than the primitive pursuit of direct and immediate self-interest. Preferences and choices are also shaped by broader considerations, such as knowledge of and concern for a partner's outcomes, goals for the future of a relationship and social norms (McClintock & Liebrand, 1988). Such preference shifts are referred to as *transformation of motivation*, a process which may lead individuals to relinquish their immediate self-interest and act on the basis of broader interaction goals. In the context of ongoing relationships, many transformations are either benign or actively promotive of healthy, long-term functioning. Individuals may produce rewards (or suffer costs) for their partners without expectation of immedi-

ate benefit to themselves (e.g. to signal co-operative intent, John may adhere to Mary's preferred division of household tasks), or they may forego opportunities for desirable outcomes that might otherwise be obtained (e.g. Mary may curtail time spent with male friends because such activities are threatening to John). Also, partners' outcomes may become intertwined over the course of extended interaction, and the positive experiences of one individual may become vicariously rewarding for the other (e.g. John feels happy when Mary is promoted). Moreover, partners may develop feelings of obligation which make them tolerant of temporary inequities, and which make it awkward (and sometimes destructive) to be too deeply concerned with 'outcome counting' (e.g. excessive concern with reciprocity).

Thus, interdependence theory goes beyond the simple notion that people are attracted to those with whom they experience rewarding interactions, suggesting that feelings, preferences and choices are colored by broader aspects of interdependent relationships. The theory is especially concerned with the structure of interdependence between two individuals, which rests on the ability of each partner to influence the other's outcomes. In characterizing outcome control and dependence, it is useful to consider four properties of interdependent relationships: *degree of dependence* — in obtaining good vs poor outcomes, the degree to which each individual is dependent on the partner and on their joint activities (e.g. does John need Mary to feel good about himself, or does he have other friends who help him feel lovable?); *mutuality of dependence* — the degree to which partners are mutually vs unilaterally dependent, or the extent to which they need each other equally (e.g. Mary may be John's sole source of emotional intimacy, whereas Mary may have multiple intimate friends); *correspondence of outcomes* — the degree to which the partners' preferences for joint outcomes correspond vs conflict (e.g. Mary may desire greater independence than John, creating conflicts of interest in which she feels cornered while he feels jealous or insecure); and *basis of dependence* — the degree to which dependence involves joint vs individual control (e.g. does Mary coordinate her actions with John's to attain good outcomes, or do Mary's outcomes rest on John's ability to unilaterally provide rewards?).

The existence of interdependence implies that partners in a close relationship influence one another's experiences and need

each other to obtain valued outcomes such as instrumental support, affection, sexual fulfillment and emotional closeness. In this regard, two important properties of an ongoing relationship concern satisfaction level and degree of dependence. *Satisfaction level* concerns the degree to which an individual favorably evaluates a relationship and believes that a partner fulfills important needs; satisfaction encompasses all of the positive and negative feelings that are associated with a relationship (i.e. does Mary passionately love John? does he fulfill her needs for intimacy?). In contrast, *dependence level* concerns the degree to which an individual relies on a relationship for obtaining good outcomes, and depends primarily on the partner for the fulfillment of important needs (i.e. does Mary primarily rely on John and their relationship for companionship and intimacy?).

Satisfaction level. An individual evaluates the outcomes in a relationship, and accordingly feels satisfied or dissatisfied, in light of his or her *comparison level* (CL), 'the standard against which the member evaluates the "attractiveness" of the relationship or how satisfactory it is' (Thibaut & Kelley, 1959: 21). The level of outcomes individuals believe they deserve may be influenced by experiences in previous relationships, by observation of peers' relationships, and by comparison to the partner's outcomes — 'the location of CL on the person's scale of outcomes will be influenced by all of the outcomes known to the member, either by direct experience or symbolically' (Thibaut & Kelley, 1959: 21). For example, Mary's expectations regarding her relationship may be raised by talking to a friend whose marriage seems to be passionate and harmonious, especially if Mary believes these qualities are important (Titus, 1980). When the outcomes obtained in a relationship compare favorably to CL, the individual is likely to feel satisfied; when outcomes fall below CL, the individual is likely to feel dissatisfied.

Dependence level. In contrast, the *comparison level for alternatives* (CL-alt) is 'the standard the member uses in deciding whether to remain in or to leave the relationship. . . . CL-alt can be defined informally as the lowest level of outcomes a member will accept in light of available alternative opportunities' (Thibaut & Kelley, 1959: 21). The outcomes perceived to be available outside the relationship may be affected by the attractiveness of specific alternative relationships, the quality of the broader field of eligibles and the option of non-involvement — 'the height of the

CL-alt will depend mainly on the quality of the best of the member's available alternatives, that is, the reward–cost positions experienced or believed to exist in the most satisfactory of the other available relationships' (Thibaut & Kelley, 1959: 21–2). Because individuals with low CL-alt have few attractive options outside their relationships, they are dependent on their relationships and 'need to' remain with their partners.

Given that there is no necessary link between CL and CL-alt, the experiences of satisfaction and dependence logically are independent. Moreover, it should be clear that many patterns of satisfaction and dependence are possible; if the balance of rewards relative to costs in a relationship exceeds both CL and CL-alt, both satisfaction and dependence will be high (i.e. voluntary dependence); if outcomes are below CL but above CL-alt, satisfaction will be low whereas dependence will be high (i.e. non-voluntary dependence); if outcomes are above CL but below CL-alt, satisfaction will be high but dependence will be low (i.e. the 'happy but free' relationship); and if outcomes are below both CL and CL-alt, both satisfaction and dependence will be low (this type of relationship should not persist).

The investment model of commitment

The investment model extends interdependence theory claims in part by asserting that the state of dependence is subjectively represented and experienced as feelings of commitment. *Commitment level* is a psychological state that globally represents the experience of dependence on a relationship; commitment summarizes prior experiences of dependence and directs reactions to new situations (e.g. willingness to sacrifice when outcomes are non-correspondent). Commitment represents long-term orientation, including feelings of attachment to a partner and desire to maintain a relationship, for better or worse. Thus, commitment is defined as a subjective state, including both cognitive and emotional components, that directly influences a wide range of behaviors in an ongoing relationship. Highly committed individuals need their relationships, feel connected to their partners and have a more extended, long-term time perspective regarding their relationships. What produces such feelings?

Not surprisingly, satisfaction level is one feature of relationships that influences feelings of commitment. Certainly, happy couples are likely to exhibit higher average commitment levels than are unhappy couples. Consistent with interdependence theory, we suggest that individuals feel more satisfied when their partners and relationships provide valued outcomes by fulfilling important needs, and when CL is low. To understand rewards and costs in extended relationships, it is important to recognize that increasing interdependence frequently involves a shift in outcome orientation. Mary may come to think less exclusively in terms of her own outcomes, and may discover that she is deeply affected by John's outcomes — that she enjoys his successes and suffers his setbacks, that she rejoices in the rewards he personally experiences and grieves at his costs. Thus, partners' rewards and costs are jointly experienced in an ongoing close relationship; their shared life and joint outcomes are richer and more varied than their individual lives and outcomes.

Feelings of satisfaction are also affected by comparison level, which is shaped by previous love relationships as well as by social comparison with friends or siblings. When a relationship exceeds the individual's generalized expectations regarding need fulfillment and relationship quality, feelings of satisfaction should be enhanced. Traditionally, comparison level has been characterized in terms of location on a unidimensional good/bad continuum. But outcomes are probably not experienced solely in terms of goodness vs badness. Instead, it may be useful to conceive of CL as a qualitative expectation. That is, individuals may hold schemata or mental models of ideal involvement. Individuals' qualitative expectations may differ with respect to such factors as: companionate and passionate love; erotic, ludic and storgic love; or secure, anxious/ambivalent and avoidant attachment (Berscheid & Walster, 1974; Hazan & Shaver, 1987; Hendrick & Hendrick, 1986). We suggest that when a relationship more closely matches one's qualitative CL of what a relationship ought to be, feelings of satisfaction are likely to be strong.

A final process that is relevant to understanding satisfaction concerns the comparison of one's own inputs and outcomes to those of a partner. This issue has been studied primarily from the perspective of equity theory (Hatfield et al., 1985), which assumes that feelings of satisfaction depend not only on the absolute level of one's outcomes, but also on comparisons of one's input-out-

come ratio to that of a partner. Satisfaction will be greatest when one's input–outcome ratio is equal to that of a partner; when these ratios differ, individuals feel distressed and dissatisfied. Such distress is experienced not only by overbenefited individuals, who feel guilty because they receive more from their relationships than their partners, but particularly for underbenefited individuals, who feel sad, frustrated and hurt since they receive less than their partners. Numerous studies have revealed that satisfaction is influenced by global perceptions of being as well off as one's partner (Buunk & VanYperen, 1991; Sabatelli & Cecil-Pigo, 1985; Sprecher, 1986), as well as by the perception of being as well off as the partner in specific domains, including the division of household chores (Steil, 1984), physical attractiveness (McKillip & Riedel, 1983) and power (Mirowsky, 1985). However, equity effects tend to be weaker than the effects of outcome level in affecting feelings of satisfaction in love relationships (Cate et al., 1988).

Thus, the investment model proposes that individuals feel more committed to their relationships in part because they feel more satisfied — because their relationships provide rich and abundant rewards, do not involve serious costs and closely match their mental models of ideal involvement. It is easy to feel both happy and committed when a relationship is going well. But if satisfaction were the whole picture, we would be left with a Southern California model of commitment. 'As long as it feels good, I'll stick with it.' Surely commitment is affected by factors other than satisfaction.

Following interdependence theory, the investment model suggests that individuals feel more committed when they believe they have poor quality alternatives to their relationships. Alternative quality refers to an individual's judgment of the attractiveness of available alternatives — another relationship, dating around or the option of non-involvement. Perceived quality of alternatives can be affected not only by the attractiveness of a specific alternative, but also by concurrent alternatives such as non-romantic friendships, hobbies or the social network. In a general sense, quality of alternatives refers to the strength of the forces pulling an individual away from a relationship, or the degree to which an individual believes that important needs could be effectively fulfilled outside the relationship.

One obvious 'pull' away from a relationship is the presence of a tempting alternative partner. Much research documents the strain

occasioned by such a challenger (Buunk, 1987a; Drigotas & Rusbult, 1992). But an actual in-the-flesh challenger is not the only threat to a committed relationship. Another threat concerns the broader field of eligibles, which is influenced by factors such as imbalanced sex ratios and cultural variations in mating behavior. For example, Secord (1983) suggests that when a given environment includes a greater number of women than men, heterosexual men logically have more numerous alternatives than women, and accordingly exhibit reduced inclination to commit themselves to monogamous involvement.

Furthermore, when alternatives are construed as opportunities for leaving an unhappy relationship, we achieve a deeper appreciation of this construct. For example, research on sex differences in power demonstrates that divorce is more probable when women's economic, social and legal power is closer to that of men (Steil, 1984). Also, prior research has demonstrated that individuals are more likely to abandon abusive partners when they have a viable 'out', including such concrete resources as reasonable housing, employment opportunities and transportation (Strube, 1988). Thus, when the barriers to exiting an unhappy relationship are reduced, perceived quality of alternatives increases and feelings of commitment are likely to decline.

Dispositions may also affect perceived alternative quality. For example, research on affiliation and independence motives demonstrates that just as a strong desire to affiliate can draw an individual toward more intimate involvement, a strong need for independence can pull an individual away from a partner (Eidelson, 1983). Also, research on reactions to dissatisfaction demonstrates that individuals with high self-esteem are more likely to react to problems in actively destructive ways (e.g. with exit; Rusbult et al., 1987). Thus, when individuals feel that they are desirable, valuable human beings, and when they have strong needs for autonomy, the forces drawing them away from their partners may be stronger.

If satisfaction and alternatives were the sole issues in understanding commitment, we would find that if an appealing alternative entered the scene when satisfaction was low, commitment would plummet and the relationship would end. However, all relationships suffer unsatisfying periods — periods when love is sorely strained, periods when the schedule of gratifications is thin and a relationship appears to survive as a matter of faith. Also,

attractive alternatives do not simply disappear when individuals become involved in exclusive relationships. In most cases, tempting alternatives continue to be available. Accordingly, the investment model identifies a third factor that may affect feelings of commitment.

The investment model extends interdependence theory claims by asserting that commitment is further increased by investing numerous or important resources in a relationship. In a general sense, *investment size* refers to the variety of ways in which individuals become bound to their relationships. Some invested resources are put directly into a relationship, such as time or emotional energy. Indeed, Reis & Shaver (1988) suggest that when an individual gives the partner access to his or her deepest emotional experiences and the partner responds in an affirming manner, partners become increasingly bound to one another. Personal sacrifice may also be experienced as a direct investment (e.g. accepting a less preferred job to live in the same city as a partner). Indirect investments may also emerge: originally extraneous resources — things that have little to do with the relationship itself — may become inextricably connected to a relationship (e.g. mutual friends, shared memories, activities or possessions that are uniquely linked to a relationship). Investments of both sorts intensify commitment by increasing the costs of ending a relationship, in that leaving would mean abandoning cumulative investments.

One's personal identity may also become linked to a relationship. If John comes to think of himself not simply as 'John', but as part of a unit defined 'JohnandMary', ending a relationship may mean abandoning a significant component of personal identity. Kelley (1983) refers to this process as 'linking membership to the self-concept'. A related phenomenon involves promotive interdependence. When John creates an environment in which Mary feels free to be the person she aspires to be, and when John's habits and dispositions facilitate the expression of her best self, Mary's self becomes tied to John. In a very literal sense, she would not be the same person without John. Similarly, Berscheid (1983) suggested that over time, partners become increasingly involved in one another's lives and jointly influence the odds of achieving both shared and individually defined goals. This enmeshed goal-striving can be represented as interchain sequences, where events in one individual's causal chain are connected to events in the other's chain. 'The extent to which such interchain connections exist . . .

defines the extent of each person's emotional investment' (Berscheid, 1983: 142). Thus, the individual's options, identity and emotional state may become increasingly bound to a partner over the course of time.

Yet another source of investment involves cognitive interdependence. Over time, partners may come to think as a unit; they may come to experience the world in cognitive concert. The existing research has demonstrated forms of cognitive interdependence such as the following: actor–observer differences in attribution are weaker for close others than for strangers; recall of information regarding a close partner is intermediate between recall of information for oneself and recall for a stranger; and internal representations of self and other are more strongly related when the other is a close partner (Aron et al., 1991; Hogg & Turner, 1987). Also, research on transactive memory suggests that 'close relationships normally foster the development of shared memory schemes' (Wegner et al., 1991: 923). For example, Mary may 'dump' some information from her memory, relying on John to remember the date and time of a friend's wedding, the artist who painted *The Raft of the Medusa* or the century during which the Goths invaded Italy. These forms of interdependence would be lost on termination of a relationship, and therefore stand as investments toward maintaining a relationship.

In future work it may be useful to conceptualize social norms and moral prescriptions as forms of investment, in that like investments, they frequently bind an individual to a relationship even when the individual is dissatisfied (Becker, 1960). As Johnson (1991) notes, two normative constructs may be relevant to relationships. First, an individual may remain committed because sticking with the relationship is a personal moral imperative. For example, Mary may not take lightly the personal promise to cleave to John 'for better or worse, in sickness and in health, so long as we both shall live'. Second, an individual may remain in a relationship because external sources (e.g. family, religious prescriptions, cultural norms) dictate that doing so is desirable. Such sources communicate both how the individual should behave and the costs of failing to comply, and they take on diverse forms ranging from a disapproving look from a friend to excommunication from one's church. Many pervasive norms may result from a social evolution whereby cultural norms defuse conflicts likely to result from the unbridled pursuit of biologically based motives (Campbell, 1975;

Prins et al., in press). For example, norms of fidelity may help counter desire for the continual pursuit of novel sexual partners.

Thus, a variety of resources, material or psychological, concrete or abstract, trivial or essential, may become tied to an ongoing relationship to the extent that such resources would be lost or damaged if the relationship were to end. Such investments can serve as powerful psychological inducements to continue a relationship — inducements which should result in a greatly expanded time orientation with regard to a relationship, and should enhance the individual's sense of commitment.

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 discussed above. Feelings of commitment not only encompass the positive forces that make the individual want a relationship more (e.g. strong satisfaction), but also the negative forces that block the individual from leaving (e.g. perceiving that one has poor alternatives) or bind the individual to a partner (e.g. investing important resources). Sometimes these forces work in harmony, and sometimes they work in opposition. Certainly, large investments and poor alternatives can trap an individual in an unhappy or abusive relationship, but in gratifying relationships individuals may do well to actively burn their bridges by driving away alternatives, or to actively throw in their lot with a partner by investing heavily in a relationship. Burned bridges and invested resources can produce entrapment, but they may also hold a relationship together during difficult times.

Other theorists have proposed similar models. For example, Levinger (1979) suggests that three factors increase cohesiveness: attractions, or the forces that drive one toward a relationship; barriers, or the forces that restrain one from discontinuing a relationship; and alternative attractions, or the forces that draw one away from a relationship. Also, Johnson's (1991) framework proposes that motivation to maintain a relationship is the product of three variables: personal commitment, or one's personal desire to continue a relationship; moral commitment, or the feeling that one ought to continue a relationship; and structural commitment, or the sense that one has no choice but to continue a relationship. In many respects, these theories parallel our model. For example, the

investment model construct of satisfaction, Levinger's attractions and Johnson's personal commitment are similar in that all three refer to the positive forces that draw an individual voluntarily to a relationship. Also, both the investment construct and Levinger's barriers refer to the constraints that bind one to a relationship. Moreover, Johnson's structural commitment construct includes elements of investments and alternatives. In addition, all three models propose that the net effect of these dependence-enhancing factors is to increase motivation to continue a relationship. Levinger refers to this net effect as cohesiveness, Johnson terms it motivation to maintain/dissolve and we refer to it as commitment.

Empirical tests of the investment model (Duffy & Rusbult, 1986; Rusbult, 1980a; Rusbult et al., 1986b, 1991) have consistently revealed that commitment level is positively correlated with satisfaction and reported investment in a relationship, and negatively correlated with perceived alternative quality. Collectively, these variables account for 50–90 percent of the variance in commitment. Moreover, all three factors are necessary to understand commitment: in regression analyses, each component independently contributes to the prediction of subjective commitment. Two empirical examples are provided to illustrate and elaborate on these points.

One example comes from Rusbult's (1983) 7-month longitudinal study of ongoing dating relationships. On thirteen occasions, participants completed questionnaires that tapped each model component. Participation ended when a relationship ended or at the end of the academic year, when the project terminated. An analysis of trend scores revealed that changes over time in each variable were associated with corresponding changes in feelings of commitment — increasing commitment was powerfully related to increasing satisfaction, declining alternatives and increasing investment. Also, trend scores significantly differentiated between stayers, the abandoned and voluntary leavers: stayers evidenced increasing satisfaction, declining alternatives and increasing investment; leavers' satisfaction declined substantially, perceived quality of alternatives increased and 'divestiture' was evident; and the abandoned (i.e. those whose partners ended the relationship) evidenced scores between these extremes. In particular, changes over time in feelings of commitment powerfully differentiated between the three groups. Finally, causal modeling analyses demonstrated that commitment partially mediates the effects on stay/leave

decisions of satisfaction, alternatives and investments; most of the variance in stay/leave behavior was accounted for by changes over time in subjective commitment.

In a second illustrative study, Rusbult & Martz (1992) coded data obtained during the intake interviews of women who sought refuge at a shelter for abused women. Interviews conducted within 48 hours of women's arrival at the shelter included information relevant to the investment model. Two findings are especially noteworthy. First, whereas feelings of commitment significantly differentiated between women who returned to their partners and those who struck out on their own, feelings of satisfaction did not. Second, both self-reported commitment and actual behavior (i.e. whether a woman returned to her abusive partner) were significantly related to variables classified as indicators of alternative quality (e.g. education level, amount of money on hand) and investment size (e.g. marital status, duration of relationship). These findings are important for at least four reasons. First, these results demonstrate that poor alternatives and high investments can produce strong commitment and tendencies to remain in a relationship even when a relationship is completely unsatisfying. Second, support for the model is not limited to data obtained in self-report questionnaires (i.e. self-report artifacts cannot account for these findings). Third, these results have important theoretical implications. The decision to remain in an abusive relationship should not necessarily be regarded as an inexplicable choice made by an irrational individual, nor should such a choice necessarily be attributed to such an individual's disposition (e.g. masochism, learned helplessness). When one takes into account the nature of an individual's dependence on a partner, the decision to remain in an abusive relationship becomes understandable. Finally, these findings have important policy implications. Interventions providing the victims of abuse with psychotherapy or counseling may be well and good, but altering their dependence on a partner by providing such women with viable economic alternatives (e.g. job training, driving lessons) may be tantamount to giving these women freedom of choice.

A number of other studies have provided good direct or indirect support for investment model predictions. For example, feelings of commitment and greater odds of maintaining a relationship have been shown to be associated with satisfaction level constructs such as degree of love for partner, self-reported satisfaction and a

'marital comparison level index' (e.g. Buunk, 1987a; Lund, 1985; Rusbult et al., 1986b; Sabatelli & Cecil-Pigo, 1985). Moreover, commitment and stay/leave behavior are related to quality of alternatives constructs such as barriers to dissolution and indices designed to tap the best available alternative, best imagined alternative and ease of finding an alternative partner (e.g. Drigotas & Rusbult, 1992; Felmlee et al., 1990; Sabatelli & Cecil-Pigo, 1985). Commitment and stay/leave behavior are related to investment constructs such as personal investment in a relationship, support from the surrounding social network, duration of relationship and exclusivity (e.g. Duffy & Rusbult, 1986; Felmlee et al., 1990; Lund, 1985; Rusbult et al., 1991). Finally, the generalizability of the model has been fairly thoroughly demonstrated. In addition to accounting for the development of commitment in both heterosexual and homosexual involvements, and in both dating relationships and marriages (Duffy & Rusbult, 1986; Rusbult, 1983; Rusbult et al., 1986b), the model also accounts for commitment in friendships (Rusbult, 1980b), and effectively describes job commitment and turnover decisions (Rusbult & Farrell, 1983).

Commitment consequences: relationship maintenance behaviors

In the beginning of a relationship, partners may experience specific interaction problems as unique situations of interdependence. In deciding how to react to a specific interaction dilemma, they may consider their options, interpret surrounding circumstances, review their feelings for a partner and goals for a relationship, and decide how to behave. Over time in a relationship, some problems of interdependence will be encountered regularly, and a relatively stable orientation to such situations may develop. Some partners in some relationships may routinely engage in pro-relationship behaviors; others may typically act on the basis of self-interest. Holmes (1981) suggested that such stable transformational tendencies are guided by macromotives — by the relatively enduring, internalized, relationship-specific interpersonal attitudes that emerge in the context of a given relationship.

We suggest that commitment level is a central macromotive in relationships. That is, we propose that subjective commitment

summarizes the nature of dependence in a given relationship, directs reactions to new interdependent situations and importantly shapes stable tendencies to engage in pro-relationship behaviors, even when such behaviors are costly or stand in opposition to direct self-interest. Why should this be so? First, long-term orientation should enhance the desire to maintain a healthy, enduring involvement, and therefore should promote pro-relationship motivation and behavior (Holmes, 1981). Second, in long-term relationships, engaging in pro-relationship behaviors on earlier occasions may yield direct personal benefit on later occasions, when a partner feels inclined to reciprocate (Axelrod, 1984). Third, pro-relationship behavior may communicate a committed person's co-operative, long-term orientation — behavior that is contrary to self-interest may provide evidence of an individual's feelings and attitudes toward the partner (Kelley, 1979). Fourth, given that degree of dependence is argued to be one of the primary qualities of interdependent relationships (Kelley & Thibaut, 1978), and given that commitment level represents the net effects of other dependence-enhancing variables (i.e. satisfaction, alternatives and investments), feelings of commitment should exert profound and general effects on behavior in relationships.

The following paragraphs review a variety of relationship maintenance mechanisms, identifying the pro-relationship behaviors that help relationships survive despite internal and external threats and challenges, despite impulses toward self-centered pursuit of one's own preferences, and despite the inevitable ravages of time. In addition to describing each maintenance phenomenon, whenever possible we also review empirical evidence demonstrating that a given mechanism is related to healthy functioning, and that the mechanism is promoted by feelings of commitment to a relationship.

Adaptive social comparison and perceived relationship superiority

One mechanism for relationship maintenance is suggested by Festinger's (1954) theory of social comparison, which argues that when individuals cannot evaluate their abilities, beliefs or feelings on the basis of objective information, they engage in *social comparison*. Surra & Milardo (1991) proposed that over the course of a developing relationship people engage in comparison with others in their social network to evaluate their beliefs about close relationships, the suitability of the partner and their experiences and feel-

ings in the relationship. Consistent with this line of reasoning, Buunk et al. (1991) found that when individuals felt uncertain about how to interpret events in their marriages, they exhibited enhanced desire to talk with others about their marriages, especially with others whose marriages were perceived to be well functioning. The reasons for preferring upward comparison were assumed to be two-fold: affiliation with individuals in distressed relationships might be unattractive due to the risk of identifying with such marriages; and affiliation with others whose marriages are better off might be informative, and might provide a basis for learning.

The above evidence is in line with the claim that individuals engage in social comparison for reasons of realistic self-evaluation. However, a growing literature suggests that social information-processing is not necessarily unbiased; people may process information in a self-serving manner, and accordingly may harbor unrealistically positive beliefs (Taylor & Brown, 1988; Taylor et al., 1990). Buunk & VanYperen (1991) reasoned that referential comparisons (i.e. comparisons with others in one's reference group) primarily serve to develop and maintain positive views of oneself, one's partner or one's relationship. When engaged in such comparisons, individuals should be motivated mainly to perceive the input–outcome ratio in their relationship as better than that of other relationships. In line with this analysis, Buunk & VanYperen found that the majority of their participants believed the input–outcome ratio in their marriage was better than that of comparable same-sex others, and that the more this was perceived to be so the greater was their marital satisfaction.

Buunk et al. (1990) examined selective interpretation of comparison information as a relationship maintenance mechanism, proposing that the affective consequences of social comparison are not necessarily intrinsic to the direction of comparison (i.e. upward vs downward). For example, downward comparison information can be interpreted in at least two ways: Mary may feel happy that her marriage is better than other people's marriages, and as a consequence experience positive affect; or Mary may worry that similarly bad things could happen to her and John, and experience negative affect. Buunk et al. obtained findings consistent with the prediction that marital dissatisfaction is greater among individuals for whom both upward and downward comparisons elicit negative affect. That is, happily married couples

appeared to employ cognitive filters that helped them maintain a positive view of their marriage by holding negative comparison implications at bay.

Related research by Rusbult et al. (forthcoming) examined naturally occurring beliefs regarding close relationships, demonstrating that *perceived superiority* was reflected in individuals' tendencies to hold more positive beliefs about their own relationships than about others' relationships (i.e. positive superiority), and to hold fewer negative beliefs about their own relationships than about others' relationships (i.e. negative superiority); also, positive information dominated individuals' beliefs about their own relationships (i.e. own relationship positivity), whereas negative information loomed large in beliefs about others' relationships (i.e. other relationships negativity). These authors also found that the tendency to perceive one's relationship as superior was relatively stable, that earlier perceived superiority was predictive of later adjustment (assessed 6–9 weeks later), and that perceived superiority assessed at an earlier time was greater for relationships that persisted than for relationships that eventually ended. Finally, earlier commitment was predictive of later perceived superiority, and once the impact of commitment was accounted for, satisfaction, alternatives and investments contributed non-significant additional variance to predicting perceived superiority.

Does perceived superiority in committed relationships reflect motivated relationship-enhancing illusion (as we have suggested) or reality? If committed relationships *really are* superior, it becomes difficult to assess the extent to which perceived superiority is motivated by maintenance concerns, if at all. Consistent with our motivational interpretation, the Rusbult et al. (forthcoming) studies revealed that strong commitment is associated not only with tendencies to hold many positive and few negative beliefs about one's own relationship, but *also* with tendencies to hold many negative and few positive beliefs about others' relationships, a finding which is difficult to explain from a non-motivational perspective (although such an interpretation is not impossible; e.g. one's own relationships may serve as a CL for evaluating others' relationships). Ultimately, we suspect that perceived superiority represents a blend of both illusion *and* reality; reality surely places some constraints on illusion. Also, greater perceived superiority may 'feed back' on satisfaction, which in turn enhances commitment, which once again promotes perceived superiority, and so

on. That is, our model of relationship maintenance may best be conceived of as a rather large causal feedback loop.

Accommodative behavior during conflict

An extensive literature pays testimony to the importance of reactions to dissatisfaction in promoting or inhibiting effective functioning in relationships. Research on distressed and non-distressed couple functioning has repeatedly demonstrated that when an individual engages in behavior that is potentially harmful to a relationship, couple functioning is enhanced when the partner inhibits impulses to react destructively in turn and instead responds constructively (e.g. Gottman et al., 1976; Jacobson et al., 1982; Rusbult et al., 1986a; Schaap et al., 1988). For example, if Mary returns home at the end of a difficult day and is rude to John, the couple will be better off if John inhibits his impulse to snap back (i.e. inhibits exit and neglect impulses), and instead asks Mary if she'd like to talk about her day (i.e. engages in voice) or silently lets the incident roll off his back (i.e. reacts with loyalty). We refer to this phenomenon as accommodation.

Consistent with our orientation, the existing research suggests that *willingness to accommodate* is promoted by pro-relationship transformation of motivation: when the motivations presumed to underlie pro-relationship transformation are reduced, tendencies to accommodate likewise are reduced; specifically, when normal social concerns are reduced or eliminated (e.g. concern for the partner's feelings, the future of a relationship and one's public image or self-concept), individuals exhibit lower accommodation than they exhibit when operating under normal social concern (Rusbult et al., 1991). Also, when partners are asked to describe both the behaviors they considered enacting and the behaviors they actually enacted when a partner behaved poorly, their actual behavior is far more constructive and benign than the behaviors they were tempted to enact. Finally, reaching the decision to accommodate requires greater processing time — when response time is limited, individuals exhibit lower tendencies to accommodate than they exhibit when response time is plentiful.

Prior research also demonstrates that the tendency to accommodate is related to the structure of an individual's interdependence with a partner, with accommodation being greater among individuals who report higher satisfaction, poorer alternatives and greater investments. For example, Schaap et al. (1988) found that even in

the rather serious case of marital conflicts concerning an extra-marital affair, partners with greater satisfaction engaged in more constructive and accommodative forms of conflict resolution. Furthermore, feelings of commitment partially mediate the effects on accommodation of other features of relationships; once the effects of commitment are accounted for, the influence of satisfaction, alternatives and investments either declines or drops to non-significance (Rusbult et al., 1991). Thus, consistent with our model of maintenance processes, existing research demonstrates that accommodation is a costly act that is promoted by pro-relationship transformation of motivation.

Derogation of attractive and threatening alternative partners

Even when they are involved in loving, highly committed relationships, many individuals continue to be confronted by desirable alternatives. Accordingly, many relationship maintenance behaviors center on making alternative involvements less attractive or less threatening to an ongoing relationship. For example, for the good of a relationship, individuals may decide to forego or restrict time spent on concurrent alternatives that threaten the relationship, such as opposite-sex friendships or time-consuming hobbies. In the early stages of a relationship, committing oneself to another typically entails forsaking alternatives and convincing oneself of the superiority of the chosen partner. Indeed, during the first year of a relationship the perceived attractiveness of alternatives declines significantly (Rusbult, 1983).

If we are lucky, we may seldom or never be challenged by tempting alternatives. As Kelley notes, if alternative partners are aware of an individual's commitment to a relationship, they may not present themselves as active alternatives; 'other persons who might have been available as partners [may] take themselves out of the running and look elsewhere for associations' (Kelley, 1983: 305). Beyond counting on good fortune, there are relatively more active means by which individuals can protect their relationships. One means of dealing with the potential for disruption occasioned by extradyadic involvement is to 'drive away' potential alternatives by wearing conspicuous symbols of one's commitment (e.g. a wedding ring), or by behaving in a cool manner when alternatives attempt to initiate romantic or sexual involvement.

In addition, committed individuals may avoid temptation and maintain stable involvement by *derogating alternative partners* —

'by taking a "sour grapes" attitude toward the rewarding aspects of the interaction or by emphasizing the negative, cost-increasing aspects of it' (Thibaut & Kelley, 1959: 175). Consistent with this line of reasoning, Simpson and his colleagues found that in comparison to individuals who were not involved in dating relationships, involved individuals evaluated photographs of opposite-sex individuals significantly less favorably (Simpson et al., 1990). Moreover, Johnson & Rusbult (1989) found that the tendency to downplay alternative partners' desirable qualities was greater among highly committed individuals than among the less committed, and that this tendency was especially marked under conditions of high threat. That is, derogation was greater to the extent that the alternative was more attractive, and when the alternative was presented as an active challenge to the current relationship (i.e. as a 'computer-assigned date' with whom the individual might actually interact).

Managing jealousy and extrarelationship involvements

Jealousy constitutes an important mechanism — though not necessarily an effective or healthy one — that is intended to stop or prevent a partner's extradyadic sexual involvements, and thus to eliminate threats to the stability of the relationship. *Preventive jealousy* generally stems from fear that a partner might become sexually involved with another. Preventive jealousy sometimes leads individuals to interpret a partner's signs of minor interest in another as threatening or as attempts to restrict a partner's contacts with members of the opposite sex (e.g. Mary may ask John not to watch television shows featuring attractive women). Reports of abused women provide testimony to the extreme actions to which some husbands resort in their efforts to limit the autonomy of their wives (e.g. locking the wife in a closet). Such extreme actions appear to result from high levels of dependence on the part of husbands, as well as their concomitant insecurity about the mere possibility of infidelity on the part of the wife (Gelles & Cornell, 1985). In contrast to preventive jealousy, *reactive jealousy* refers to the distress that accompanies revelations of a partner's prior, current or anticipated extradyadic behavior. Reactive jealousy typically is aimed at inducing the partner to end an existing relationship, or to refrain from further extrarelationship sexual involvements (Buunk, 1991).

On the basis of our interdependence analysis, it seems reason-

able to expect that the amount and intensity of jealousy should covary with degree of dependence on and commitment to a relationship (Kelley, 1979). An individual who is highly dependent on a relationship has more to lose, and therefore should be particularly sensitive to signs of a partner's interest in a third party. Indeed, Mathes & Severa (1981) found that compared to highly enmeshed partners, levels of jealousy were lower among partners who maintained separate identities — among individuals who maintained interests that did not include the partner and among those who engaged in fewer joint activities with their partners. Also, Buunk (1982) found that jealousy was more prevalent among individuals with greater dependence on their partners. Examining dependence in terms of the relative availability of opposite-sex friends, perceptions of the partner's relative commitment to the relationship and relative levels of physical attractiveness, White's (1981) research demonstrates that jealousy is more likely for the partner who feels relatively more dependent on a relationship (i.e. those who feel more involved in the relationship than their partners). Furthermore, some evidence suggests that reactive and preventive jealousy correlate differentially with various aspects of interdependence. For example, Buunk (1991) found that both forms of jealousy were more common among those who were relatively more dependent. However, whereas preventive jealousy was greater to the extent that satisfaction level was lower, reactive jealousy was greater to the extent that emotional dependence was greater. Presumably, this pattern exists because reactive jealousy emerges when there is some possibility of losing the partner.

To prevent the disruptive effects of extradyadic involvements and to enhance levels of correspondence and commitment in a relationship, some couples either adopt existing norms and rules or develop their own norms and rules to govern behavior in extradyadic sexual involvements (see Thibaut & Kelley, 1959). Such norms and rules may be developed as explicit agreements between partners (e.g. 'let's both not flirt with others'), or they may be adopted from the broader social environment as self-evident truths (e.g. 'of course we believe extramarital relationships are wrong, no matter what'). In some cases, couples who are open to extradyadic sexual relationships develop specific rules that are designated as *ground rules*. A variety of ground rules were identified in research by Buunk (1980), including *marriage primacy* (e.g. 'you

always put your own marriage first'), *restricted intensity* (e.g. 'only brief contacts are acceptable'), *visibility* (e.g. 'affairs are okay if your spouse knows the outside partner'), *invisibility* (e.g. 'it's best if your spouse is not too aware of it') and *mate exchange*. Although these ground rules were in themselves no guarantee against jealousy, a longitudinal study showed that jealousy was more likely to decline over time among couples who had earlier adhered to the ground rules of marriage primacy, invisibility and mate exchange (Buunk, 1987b). Thus, rules governing extradyadic involvement may represent solutions to problems of interdependence, and such rules may prevent intense jealousy and distress among couples who are open to extradyadic involvement.

Willingness to sacrifice

Another important maintenance mechanism concerns the *willingness to sacrifice* for the sake of a partner or relationship. If individuals were blindly to pursue their own self-interest, it is inevitable that some of their activities would conflict with their partners' preferences or harm their relationships. For example, John might wish to accept a desirable job offer in another city, yet at the same time recognize that such a decision could have some undesirable consequences — this choice might yield poor outcomes for Mary, and moving or living apart might produce negative consequences for their relationship. What should John do? Given the inevitability of non-correspondent outcomes, individuals frequently must choose to either harm their relationships or behave in a manner that is contrary to immediate self-interest. Sometimes partners resolve such dilemmas by deciding to sacrifice otherwise desirable outcomes for the long-term good of their relationships. We propose that this is especially likely among individuals who are more committed to their relationships and that relationships in which partners exhibit greater mutual sacrifice will function better in the long run.

Recent research is congruent with these claims (Van Lange et al., 1992). In a panel study of ongoing dating relationships, individuals were asked to list the four most important activities in their lives other than their current relationships (e.g. education and career, family, travel and recreational activities, religion). Individuals then reported the degree to which they would be willing to give up each activity if engaging in that activity were harmful to their dating relationship (harmful for reasons that were not the

partner's 'fault'). Consistent with expectations, at each of two times, willingness to sacrifice was positively correlated with commitment level, satisfaction level and investment size, and was negatively correlated with quality of alternatives. Also, Time 1 sacrifice was positively correlated with Time 1 dyadic adjustment (this relationship was not significant at Time 2), and relationships exhibiting greater levels of sacrifice were more likely to persist. Importantly, causal modeling analyses revealed that feelings of commitment accounted for a substantial portion of the variation in willingness to sacrifice, wholly mediating the effects of other investment model variables. Furthermore — and consistent with our claim that feelings of commitment *cause* willingness to sacrifice — commitment level at Time 1 was predictive of sacrifice at Time 2. These findings suggest that willingness to sacrifice indeed stands as a maintenance mechanism and that the inclination to sacrifice is largely mediated by feelings of commitment.

Directions for future work

To understand fully the means by which partners maintain long-term, well-functioning relationships, it will be important to pursue avenues of work beyond those discussed above. To begin with, it should be clear that we have emphasized just two of the four properties of interdependence identified by Kelley & Thibaut (1978). First, we have reviewed research on: degree of dependence — the extent to which each partner is dependent upon and committed to a relationship, and the consequences of such feelings; second, we have reviewed research on correspondence of outcomes — when and why individuals sacrifice their self-interest in non-correspondent situations, or how individuals react when a partner behaves poorly. In some sense, the majority of the work discussed above has dealt with one-half of an interdependent relationship — with one partner's feelings of commitment, one partner's willingness to sacrifice and so on. In future work, researchers might do well to explore the other two features of interdependent relationships — those features that more fully represent the *interdependence* of partners in ongoing relationships (i.e. mutuality of dependence and basis for dependence). In fact, research examining issues related to *mutuality of dependence* demonstrated that both absolute commitment level *and* mutuality

of commitment make independent contributions to predicting jealousy (Buunk, 1991).

Also, it is unlikely that the causal relations among variables in our model are purely unidirectional. We have proposed that dependence-enhancing variables (e.g. high investments) promote feelings of commitment, which in turn lead individuals to engage in maintenance behaviors. In the long run, there are surely feedback loops whereby these maintenance behaviors influence factors that are formally represented as proximal or distal causes. For example, it seems intuitively obvious that by derogating tempting alternative partners, individuals should come to perceive their alternatives as poorer in quality. Such perceptions should lead to increased feelings of commitment, and this enhanced commitment should yield continued inclination to drive away or derogate alternatives. It also seems clear that sacrificing for the good of a relationship may be experienced as an investment, which in turn should enhance commitment and further inclinations to sacrifice. In the future, it will be important to conduct the longitudinal investigations that are needed to explore such bidirectional causation.

Moreover, it seems clear that irrespective of the degree to which they love their partners or feel satisfied with their relationships, different individuals have different levels of need and interest in high interdependence with a partner (Eidelson, 1983; Hazan & Shaver, 1987). That is, some individuals appear to desire relatively higher levels of *independence* and *autonomy* than do others. We believe it would be fruitful to examine the manner in which partners negotiate acceptable levels of autonomy relative to interdependence, and to explore the consequences of non-mutual needs for independence. For example, when partners' needs for independence differ, how do they determine the degree to which each individual should forego or curtail that which would be preferred (i.e. should Mary give up her desire for independence, or should John give up his desire for intense interdependence?).

Finally, Thibaut & Kelley (1959) identified an important distinction between *non-voluntary* and *voluntary dependence*. In both instances, obtained outcomes exceed CL-alt, and the individual accordingly is dependent. However, in the case of voluntary dependence the individual enjoys outcomes that exceed CL, and therefore feels both satisfied and dependent; in the case of non-voluntary dependence obtained outcomes are below CL, and

the individual therefore feels dissatisfied yet dependent (i.e. entrapped). Research on abused women's decisions to remain in or end their relationships illustrates some of the dangers of non-voluntary commitment. In future work, it will be important to determine whether voluntary and non-voluntary commitment exert differential effects on the maintenance phenomena discussed above: for example, do both voluntary and non-voluntary commitment promote accommodation?

Conclusions

This article attempted to explain why some relationships persist through both good times and difficult times whereas other relationships end. Interdependence theory identifies important distinctions between the concepts of satisfaction and dependence, distinctions that are extended in the investment model, a theory of the process by which individuals become committed to relationships. Consistent with the assertion that strong commitment subjectively summarizes the effects of dependence-enhancing factors, the extant research consistently demonstrates that strong commitment is promoted by higher satisfaction, lower perceived quality of alternatives and greater investment size. Consistent with the assertion that commitment represents long-term orientation toward a relationship, the existing research demonstrates that commitment predicts not only stay/leave decisions, but also accounts for pro-relationship maintenance processes such as adaptive social comparison, derogation of threatening alternatives, willingness to sacrifice for the good of a relationship and tendencies to accommodate rather than retaliate when a partner behaves poorly. Taken together, these findings support our claim that interdependence theory is a fruitful basis for understanding maintenance of close relationships.

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