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**Untangling the web of interconnectedness: A longitudinal study  
of intimacy development in close relationships**

**Dillman, Leesa Gayle, Ph.D.**

**The University of Arizona, 1994**

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**UNTANGLING THE WEB OF INTERCONNECTEDNESS:  
A LONGITUDINAL STUDY OF INTIMACY DEVELOPMENT  
IN CLOSE RELATIONSHIPS**

by

**Leesa Gayle Dillman**

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**A Dissertation Submitted to the Faculty of the  
DEPARTMENT OF COMMUNICATION  
In Partial Fulfillment of the Requirements  
For the Degree of  
DOCTOR OF PHILOSOPHY  
In the Graduate College  
THE UNIVERSITY OF ARIZONA**

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THE UNIVERSITY OF ARIZONA  
GRADUATE COLLEGE

As members of the Final Examination Committee, we certify that we have read the dissertation prepared by Leesa Gayle Dillman entitled UNTANGLING THE WEB OF INTERCONNECTEDNESS: A LONGITUDINAL STUDY OF INTIMACY DEVELOPMENT IN CLOSE RELATIONSHIPS

and recommend that it be accepted as fulfilling the dissertation requirement for the Degree of Doctor of Philosophy

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Final approval and acceptance of this dissertation is contingent upon the candidate's submission of the final copy of the dissertation to the Graduate College.

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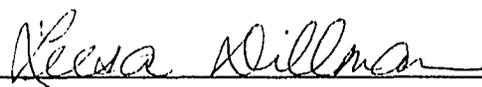
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SIGNED: \_\_\_\_\_

A handwritten signature in cursive script, reading "Keena Willman", is written over a horizontal line.

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Some say that the more difficult the journey, the greater is one's appreciation of the destination. Others say it is not so much the destination that matters, but the process of the journey itself that counts. I believe both. Climbing to the top of this mountain would not have been possible without the guidance, support, encouragement, and sacrifice of so many who were there along the way.

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### ABSTRACT

This study was designed to determine the interactional and communication qualities necessary for intimacy to exist, and to examine how these qualities uniquely combine and change over the course of a relationship's development. Past research on this subject has tended to take the form of static, one-shot approaches, to focus on only one member of a dyad, and to restrict the investigation of intimacy to a limited number of critical components. In this study, intimacy was conceptualized and operationalized as a dyadic, processual, and multifaceted construct. Movement of intimacy was hypothesized as following a hybrid model derived from traditional stage models and dialectic principles. Both partners in 92 ongoing heterosexual romantic relationships completed repeated measures of 13 components (later reduced to seven composites and single variables) proposed as being essential to intimacy and an additional global intimacy measure over a six-week time period. Results indicate that all but one proposed component were significantly related to global intimacy, and that three of the seven components fluctuate over time as hypothesized by a dialectic model. Two others were affected by interactions between time and partner factors. Because global intimacy and two components were unaffected by time, the conclusion is that although dialectic principles are evident in many of the elements comprising intimacy, they are not useful in explaining global patterns of intimacy development. Congruence between partners on the components of intimacy was also examined. It was found that congruence on a limited number of elements predicted the direction of perceived intimacy movement in only 51 percent of the cases. Theoretical and methodological implications for continued work in this area are discussed, and future research is suggested.

## CHAPTER 1

### INTRODUCTION

#### Rationale

Developing and maintaining relationships are skills necessary for a productive and successful life (Derlega, 1984; Hinde, 1979). Without relationships, humans would suffer dire social consequences and psychological maladies (Derlega & Chaikin, 1975). It is through relationships that individuals learn social and cultural norms without which society would crumble (Perlman & Fehr, 1987). Both Kelley (1986) and Hinde and Stevenson-Hinde (1986) suggest that, through communication, relationships mediate between an individual and society. Thus, relationships and the communication that takes place within them are central to understanding both the individual human being as well as the larger organization of society. Not only do relationships influence the nature of individual and societal development, but individuals and societies in turn influence the development of relationships (Kelley, 1986).

There is ample evidence to suggest that intimate (or close) relationships enhance the well-being of most humans. Reis (1984), for example, examined the influence of different types of relationships on psychological and physical health. He suggests that relationships with affectively close or intimate others result in greater psychological well-being. In a study by Freedman (1978), over 90% of the subjects who reported being in love also reported being generally happy. Weiss (1973) reports that emotional loneliness, a condition resulting from lack of intimate ties, is more severe than social loneliness, a condition resulting from a lack of friendship and acquaintance ties. There is also clinical evidence that the lack of intimate relationships may lead to detrimental effects such as depression and suicide (see e.g., Brown & Harris, 1978; Goldberg, 1976). It becomes clear, then, that individuals make distinctions among types of relationships and that involvement

in a close or intimate relationship results in more positive and fewer negative effects than involvement in less intimate relationships.

Although the significance of relationships is well-documented, the literature on relationship development as a whole is incoherent in its presentation of the components necessary for relationship development and how those components uniquely combine at various points in relational development. One factor contributing to this confusion is that some researchers treat intimacy as a static individual-level phenomenon while others suggest it is a dynamic characteristic of a dyad. Another problem stems from researchers focusing on a limited number of factors contributing to intimacy. These problems have resulted in inconsistent definitions of intimate relationships, making comparisons within the growing body of literature extremely difficult. Further, those who have attempted to describe or explain the development of intimacy in relationships have been reliant on these definitions and thus are also prey to the limited perspective they have chosen.

This investigation is designed, first, to provide consistency and coherence to the definition of intimacy and second, to examine how intimacy develops in relationships. To this end, past conceptualizations of the intimacy construct are examined and the elements considered essential in intimate relationships are proposed. The major approaches currently used to describe the development of relationships are then summarized and a hybrid model combining aspects of both is suggested. This is followed by a report of a study designed to explore both the construct of intimacy and its development in relationships.

#### Conceptual Discrepancies in the Intimacy Construct

Two underlying problems in the research on intimate relationships stem from (1) inconsistency in the conceptualization and operationalization of intimacy as a static trait or state or as processual, and (2) a lack of agreement over the level of analysis (i.e., individual

or dyadic). A third problematic issue for those investigating intimacy lies in the definition of the construct itself. That is, what conditions or elements are necessary for an intimate relationship to exist? These three issues are addressed in this section.

#### Static vs. Dynamic Qualities of Intimacy

Most researchers in the area of intimate relationships assume that intimacy is either a fixed state or a dynamic process without considering that some aspects of intimacy may be static while others are dynamic. Those who categorize relationships according to type and then label some types as "close" and others as "not close" implicitly assume intimacy is static. Both Bochner (1984) and Baxter (1988) find the reliance on ordinary language labels to distinguish types of relationships or degrees of closeness as problematic because the same label (e.g., boyfriend) may be qualitatively different across relationships while different labels (e.g., friend and roommate) may actually represent qualitatively similar relationships. Miller and Lefcourt (1982) supported this assertion in a study assessing intimacy in different couple types. They found that while married students reported greater intimacy than unmarried students, both of these samples had higher intimacy scores than those in a clinical sample of distressed married partners. Relying solely on relationship type as a measure of the degree of intimacy or closeness risks exclusion of some relationships that are close and inclusion of some that are not as close. Operationally, this argument suggests that researchers would be well-advised to consider a continuum marked by the endpoints of close and not close, and to avoid the assumption that a particular type of relationship is characterized by only one level of closeness.

Another static treatment of intimacy occurs when researchers focus on the end state of a variety of behaviors. Intimacy is proposed to result from tactile immediacy (Morris, 1971) or verbal self disclosures (Derlega & Chaikin, 1975; Hinde, 1979; Jourard, 1971). Chelune, Robison, and Kommor (1984) note that "while self-disclosures (both verbal and

nonverbal) may be the major interactive behaviors upon which subjective appraisals and relational expectations for intimacy are based, they do not, in themselves, constitute intimacy" (pp. 14-15). Helgeson, Shaver, and Dyer (1987) concur that while self disclosure is an important element of developing relationships, by itself self disclosure is neither a necessary nor sufficient condition for intimacy. Self disclosure is likely to be important in the initial development of relationships, but other aspects (e.g., mutual interests and goals) may become more important as close relationships begin to stabilize. Claiming that a dyad is intimate when participants self disclose or exhibit tactile immediacy implies that intimacy has an upper limit, a notion to be challenged in a later part of this discussion.

Operationally, intimacy must be assessed at a single point in time, making it appear static. But one's perception of the intimacy in a relationship today does not guarantee that tomorrow's or next week's perception will be the same. Noller (1987) notes that intimate behavior (i.e., a dynamic quality) leads relational partners to infer intimate feelings in one another, and thus to infer a level of intimacy in a relationship as a whole (i.e., a static quality). Acitelli and Duck (1987) argue that "without some stable defining features, intimate relationships could not easily be distinguished from non-intimate ones, except that subjects, at a specific point in time, may report them to be such" (p. 301). This suggests that intimacy has both static and dynamic qualities, or that globally, intimacy may be perceived as fairly static while momentarily, it may fluctuate. For researchers, this discrepancy poses a challenge. It implies that one-shot assessments of a dyad's perception of intimacy are insufficient in tapping the dynamic aspects of the construct. It is also likely that certain aspects of intimacy are more important than others at different points in a relationship's development. Only by studying how perceptions of intimacy change over the course of a relationship can researchers begin to understand the development and maintenance of close relationships.

### Intimacy as an Individual or Dyadic Quality

Another issue contributing to the conceptual confusion surrounding the intimacy construct is whether intimacy is an individual quality or something that "emerges" from interactions with another person. McAdams (1988) defines an intimacy motivation as ". . . a recurrent preference or readiness for experiences of warm, close, and communicative interactions with others . . ." (p. 19). He also makes the claim that intimacy results from mutual sharing (McAdams, 1984, 1988), but his main focus is on the individual. Granted, the ability to experience and express warmth and closeness toward another is a necessary precursor to the development of intimacy between two individuals. Still, there must be some degree of overlap between two individuals' beliefs if relational intimacy is to develop. That is, if only one partner has this motivation while the other does not, then one might call it a "crush," or in Tennov's (1980) terms, limerance.

Social exchange, equilibrium, and systems theorists (e.g., Argyle & Dean, 1965; Hatfield, Traupman, Sprecher, Utne, & Hay, 1985; Kelley et al., 1983; Patterson, 1976, 1984; Walster, Walster, & Berscheid, 1978) argue that intimacy is an emergent quality of a dyad. That is, intimacy results from a unique combination of two individuals' cognitions, emotions, and behaviors toward and about one another. Acitelli and Duck (1987) advocate an approach that focuses on the relationship itself rather than on the individual partners, ". . . on locating intimacy between partners rather than within each individual" (p. 298). Duck and Sants (1983) argue that it is not only the combination of two individuals' cognitions, emotions, and behaviors, but also the unique "chemistry" or order of mixing those elements that comprise intimate relationships. If one is interested in the development of relational intimacy, then it follows that the focus should be on the relationship itself rather than on the individuals in that relationship.

Operationally, determining dyadic intimacy requires making observations of both partners in a dyad and comparing their responses or behaviors. Much of the past research in this area that has drawn conclusions about relationships based on the observation or self-report of one member of the dyad has merely uncovered one individual's viewpoint of a relationship. When a dyadic construct, such as intimacy or intimate relationships, is the object of study, isomorphism is maintained by assessing the perceptions, emotions, and behaviors of both participants.

The preceding issues have contributed to conceptual ambiguity in the literature on close relationships because many researchers fail to explicate the stance they have taken. Moreover, many claim a dyadic and processual view, but the methods chosen are laden with assumptions that are contradictory to the theoretical claims (Duck & Pond, 1989). For example, Fitzpatrick (1988) advocates a processual view of the dyad, yet her method of determining couple types is based solely on a paper and pencil test administered to each partner at a single point in time. By comparing the results of each partner, she arrives at a dyadic assessment of the couple, but it lacks any process qualities. Cappella (1991) argues that ". . . most research in personal and social relationships bypasses the actual interaction patterns in favor of more static features of the relationship" (p. 103). This has stunted the progress of knowledge about relational development. Researchers must consider individuals' cognitions, emotions, and behaviors relative to a partner's at multiple points in time in order to capture the dyadic and dynamic qualities of intimacy.

#### Qualities of Intimate Relationships

There are a number of factors that most scholars agree contribute to intimacy. Yet in studying intimate relationships, some researchers tend to emphasize particular aspects while deemphasizing or disregarding others. Often, a researcher will focus on one aspect or dimension, or worse, one extreme of a dimension. While it is important to understand

the individual components of intimacy, it is equally if not more important to understand the relative contribution each factor makes toward an overall assessment of intimacy. No single scholar has proposed to study how all the components operate jointly, nor how each component might be more or less important at different times in the development of intimacy. This study attempts to rectify that problem.

Several scholars agree that intimacy is multifaceted (Burgess & Huston, 1979; Burgoon & Hale, 1984, 1987; Chelune et al., 1984; Griffin & Sparks, 1990; Levinger & Snoek, 1972; Perlman & Fehr, 1987; Walster et al., 1978), but no single work includes all of the components to be discussed in combination. Further, with only a few exceptions (e.g., Burgoon & Hale, 1984, 1987), these scholars have merely discussed the components they believe are important to intimacy without providing quantitative or qualitative evidence to support their claims. Others who have envisioned a multivariate construct (e.g., Burgess & Huston, 1979; Levinger & Snoek, 1972; Walster et al., 1978) are more concerned with testing various relationship dynamics or processes instead of examining the validity of the intimacy construct. That is, they assume intimacy is comprised of the elements they propose and focus their attention on how those elements might be exchanged or altered over time. Among the factors suggested, the following are considered important to intimacy development: (1) frequent, extended, intense, and diverse interaction (Burgess & Huston, 1979; Levinger & Snoek, 1972; Walster et al., 1978); (2) cognitive, emotional, and behavioral interdependence (Chelune et al. 1984; Levinger & Snoek, 1972; Walster et al., 1978); (3) knowledge of personal aspects of the partner (Burgess & Huston, 1979; Chelune et al., 1984; Levinger & Snoek, 1972; Walster et al., 1978); (4) mutuality (Chelune et al., 1984); (5) commitment (Chelune et al., 1984; Walster et al., 1978); (6) trust (Chelune et al., 1984; Walster et al., 1978); and (7) caring (Burgess & Huston, 1979; Chelune et al., 1984; Walster et al., 1978).

Though not all intimacy components argued for here are proposed by Chelune et al. (1984), their claim that the multiple aspects are separate but interdependent, and all are necessary for the growth of intimacy in relationships appears valid (there are elements included in this conceptualization not considered by Chelune et al., but all elements they consider are included). However, it is unclear how each feature relates to the others and how each develops over time. For example, it seems that knowledge of the partner develops from increased frequency and diversity of interaction along with self disclosure (a variable not mentioned here, but implied by increased personal knowledge) (see Bochner, 1982). In another example, trust, care, and commitment may precede or follow increased interaction. It may also be the case that certain aspects are more important than others at different times in a relationship's development or for qualitatively different types of relationships (e.g., platonic friends vs. romantic partners). Further, some characteristics may develop in a unidirectional and cumulative fashion (e.g., knowledge of the partner) while others may wax and wane over time (e.g., trust). At present, these issues are unanswered by the relational literature and to presume which characteristic precedes or causes others would be premature. It is essential that the necessary components of intimacy be determined before attempts at determining a causal model are made.

The features of intimacy I consider important to relational development will now be discussed. They are: (1) frequent, extended, diverse, and intense interaction; (2) cognitive, emotional, and behavioral interdependence; (3) knowledge of personal aspects of the partner; (4) mutuality; (5) commitment; (6) trust; and (7) caring.

Frequent, extended, intense, and diverse interaction. This aspect enables one to distinguish among one-time encounters, acquaintances, and more intimate relationships. Kelley (1986) suggests that as couples become closer, the frequency, duration, and intensity of interactions as well as the diversity of situations in which they occur increases.

This phenomenon is also evident in the development of close friendships. In some cases, such as parent-child and sibling relationships, frequency of interaction is intact at the outset of the relationship, but diversity of interactions develops as the infant grows. Levinger and Snoek (1972) further note that intimacy is signalled when relational partners repeatedly try to restore proximity during periods of physical separation, resulting in the dissipation of anxiety. This aspect of developing relationships is a necessary precursor for intimacy to develop, but is not sufficient cause to label a relationship as intimate, as in the case of coworkers who must frequently interact but do not consider themselves intimate.

Burgoon and Hale (1984) discuss intensity of involvement (or receptivity) as an important element of the intimacy construct. Involvement ". . . conveys the degree to which relational partners express attentiveness, interest, and accessibility toward one another. . ." (Burgoon & Hale, 1984, p. 198). As noted previously, Kelley (1986) claims that the intensity of interactions increases as relationships become closer. Moreover, the frequency of encounters and their duration is expected to increase as intimacy increases. Since messages signalling involvement, accessibility, and interest are likely to facilitate increased interaction, involvement appears to be a subcomponent of this feature of intimacy.

Emotional, cognitive, and behavioral interdependence. Surra and Ridley (1991) propose that persons in relationships are characterized by affective, cognitive, and behavioral interdependence. As persons become closer, the interdependencies become more enmeshed. Kelley's (1986) two-level hypothesis illustrates how the extent of interdependence can distinguish between different types of relationships. At Kelley's "given" level of interdependence, partners are interdependent on each other for concrete and direct outcomes such as gifts, information, and companionship. At the "dispositional" level, which presupposes the given level, partners become interdependent on symbolic

outcomes such as expressions of love, concern, and fairness. The former level of interdependence is classified as close, and the latter, as personal. Thus, personal relationships are characterized by interdependence at both concrete (including behavioral and tangible aspects) and emotional levels while close relationships merely exhibit interdependence at the concrete level. The utility of Kelley's (1986) distinction between close and personal relationships lies in the notion of external and internal interdependence.

That personal relationships are based on both psychological and physical interdependence appears to be most congruent with reality (see, e.g., Duck, 1988; Hinde, 1981; Kelley et al., 1983; Surra & Ridley, 1991). While intimate relationships may be initiated for a variety of reasons such as money, companionship, status, or power, Chelune et al. (1984) assert that a strong sense of caring and affection are essential ingredients, further bolstering the notion that interdependence is behavioral, cognitive, and emotional in nature.

Interdependence, however, does not appear to have a linear relationship with intimacy. Chelune et al. (1984) suggest that as a relationship initially develops, there is direct correspondence between increasing interdependence and perceptual experiences of increasing intimacy. As the relationship becomes more firmly established, partners are able to develop ties with others outside of the relationship. Minuchin (1974) has found that exclusive interdependence between marital partners may reflect pathology instead of intimacy. As a result, Chelune et al. (1984) characterize interdependence in intimate relationships as flexible and somewhat limited. Interdependence between intimate partners allows for ". . .the delicate intertwining of two lives for the greater satisfaction of each. . ." (Chelune et al., 1984, p. 31), and this includes allowing partners freedom to form and maintain relationships with others. Based on this discussion, then, it may be that behavioral interdependence increases to a point, then is either maintained or decreases

while cognitive and affective interdependence continue to increase as perceptions of intimacy increase.

Interdependence at some level, cognitive, affective, or behavioral, should increase as partners become more intimate. The relational message dimension of intensity of involvement (see Burgoon & Hale, 1984) may also be a reflection of this feature of intimacy. Because it includes signalling receptivity and openness to a relational partner, involvement may be a necessary precursor to increasing interdependence as relationships develop. Involvement, however, is primarily behavioral and Burgoon and Hale (1984) do not provide a dimension that reflects all aspects of interdependence. Thus, involvement is more closely related to the aspect of frequency, diversity, intensity, and duration of interactions. Behavioral interdependence in turn may precede or follow increased cognitive and affective interdependence, though Kelly's two-level hypothesis suggests behavioral interdependence precedes cognitive and affective interdependence.

Knowledge of personal aspects of the partner. The meanings people share as a result of communication can be viewed as the glue that bonds individuals; without communication, relationships would not exist. Moreover, the development and maintenance of intimate relationships both depend on and are manifested by the form and quality of communication that occurs in them (Burgoon & Hale, 1984; Duck & Sants, 1983; Fitzpatrick, 1988; Kelley, 1986; Kelley et al., 1983). Reis and Shaver (1988) argue that intimacy begins when one partner reveals ". . . some aspect of self, verbally or nonverbally, intentionally or unintentionally" (p. 376). This initial process depends on whether the initiator's approach motives outweigh avoidance motives. For true dyadic intimacy to exist, the partner must be willing to listen and to share equally subjective and personal aspects of him or herself. Burgoon and Hale's (1984) relational dimension of depth is similar in that it reflects the extent to which partners in a relationship are familiar with

one another. They argue that the degree of familiarity between partners usually, but not always, indicates the degree of intimacy in their relationship.

Many studies and reviews have demonstrated the correlation between reciprocal self-disclosure and intimacy (e.g., Altman, 1973; Altman & Taylor, 1973; Derlega & Chaikin, 1975; Morton, 1978; Waring, 1984; Waring, Tillman, Frelick, Russell, & Weisz, 1980; Wheelless, 1976). While some may equate self-disclosure with intimacy (e.g., Derlega & Chaikin, 1975; Jourard, 1971), others contend that self-disclosure is not a sufficient condition for intimacy (e.g., Schaefer & Olson, 1981; Waring, 1984). I argue that self-disclosure is only one manifestation of relational intimacy. Partners in a personal relationship also learn personal aspects about one another by observing each other in interactions with themselves and others. Burgoon and Hale's (1984) relational dimension of depth accurately reflects the knowledge of a partner that develops not only from self-disclosure but also from observing a partner's behaviors.

The content and style of self-disclosure makes a difference in the way a relationship is perceived (e.g., Morton, 1978). For example, self-disclosure may serve to deescalate relational intimacy when one uses it as an attack on the other's self-esteem. This illustrates how the appropriateness of the disclosure is an important consideration. While most scholars do not contest the importance of knowing personal and subjective qualities of the partner to relationship development, few would advocate indiscriminate and inappropriate disclosures.

**Mutuality.** Mutuality in a relationship implies that two people treat the relationship as a "joint venture" (Chelune et al., 1984). Partners in a close relationship acknowledge a common goal of working with each other toward strengthening (or maintaining) their relational bond. Morton and Douglas (1981) define mutuality as a mutually negotiated relationship definition, particularly with respect to the resources and rules of exchange or

the power distribution in the dyad. In order for the relationship to develop, both partners must agree on the definition of their relationship, and will renegotiate the definition after times of non-mutuality if the relationship is to continue (Morton & Douglas, 1981).

Levinger and Snoek (1972) consider mutuality to be the most important aspect of intimate relationships. This quality is implicated by the previous dimensions of shared activities, interdependence, and developed knowledge of the partner, but is unique in that it addresses the intent or motive of relational partners.

Commitment. Hinde (1981) defines commitment as ". . . the extent to which the partners in a relationship either accept their relationship as continuing indefinitely or direct their behaviour towards ensuring its continuance or optimizing its properties" (p. 14). The degree of commitment both affects and is affected by the preceding characteristics of intimate relationships. As a relationship develops, Hinde (1981) suggests that commitment is experienced internally initially, but may result in more overt expressions such as private pledges between partners or more public marriage vows in later stages as a result of increased interdependence, self-disclosure, and shared activities.

These expressions of commitment may fall under Burgoon and Hale's (1984) relational dimension of inclusion. Inclusion messages belong to a larger set of bonding behaviors. These same behaviors very likely signal commitment because they ". . . indicate association among included partners" (Burgoon & Hale, 1984, p. 196). Furthermore, the degree of commitment influences the depth and rapidity of self-disclosures. Altman and Taylor (1973) found that often very personal disclosures are made quickly with strangers where there is no commitment, but if future interactions are expected, then self-disclosures are more cautious and dependent on the partner's reciprocal disclosures. Messages of commitment reflect interdependence, but the two phenomena are not identical. Commitment is a cognition held by one individual that he or she would like to see the

relationship with another individual continue. Interdependence, on the other hand, is a broader concept in that two people mutually depend on each other to meet their behavioral, cognitive, and affective needs. This may include a need for the relationship, but it also covers needs for other features and qualities such as financial and emotional support.

Trust. Trust is closely related to commitment. Holmes (1991) defines trust as the expectation held about what a relational partner will provide. It is reflected in the extent to which partners are cognitively interdependent, but trust may involve cognitive, affective, or behavioral outcomes. Holmes (1991) writes that "a sense of trust . . . transforms the situation and psychologically diminishes the perception of risk" (p. 58). Much of the research on trust focuses on the expectations one holds about others' social motives, rather than particular expectations about a relational partner. However, trust is a necessary antecedent for increased self-disclosure, since revealing possibly negative facts and attitudes about oneself is a risky venture. Burgoon and Hale (1984) contend that "the common encouragement of self-disclosure in intimate relationships in itself implies the primacy of a trust theme in relational interchange" (p. 201). Disclosers demonstrate some faith that the recipient will not exploit them with the revealed information, and receivers interpret a relational message of trust when their partners have disclosed to them (Derlega & Chaikin, 1975). Thus, trust is an essential ingredient in the development of intimate relationships; without it, partners would not come to know each other deeply and intimacy would not grow.

Caring. Another quality closely tied to commitment and trust is caring. It is similar but not identical to Knapp's (1978) evaluation dimension and Burgoon and Hale's (1984) relational theme of affection-hostility. Waring et al. (1980) found that affection was the most important element of intimacy for a random sample of married adults. Reis and

Shaver (1988) note that intimacy develops to the extent that the partner feels accepted and understood. This comes from the communication of care and affection and serves to validate the partner.

While caring is conceptually distinct from commitment and trust, the three concepts are closely related. Without commitment, there is little incentive to invest time and energy to learning personal aspects of another. Without trust in the partner's level of care and affection, the motivation to reveal private aspects about oneself is limited. All three of these aspects, caring, commitment, and trust, are necessary for the productive management of conflict, a communication pattern found to be critical to satisfied and non-distressed relationships (Helgeson et al., 1987; Monsour, 1992; Waring et al., 1980). For productive conflict management to take place, both partners must work together toward a common goal rather than against each other in an effort to satisfy two distinct and potentially competing goals (Hocker & Wilmot, 1991). This requires that each person care about the partner's goal as much as his or her own, be committed to making the relationship work, and trust that the partner cares about the relationship and the other's goal. It follows that the more of these three qualities one observes in a relationship, the more likely it is that productive conflict management takes place. As a result relationship partners tend to be satisfied and work toward continuing the relationship.

#### Toward a Comprehensive Definition of Intimacy

Two issues remain unclear: one, how do each of the preceding components of intimacy relate to one another? and, two, do the deductively derived components correspond with reality? To date, research addressing the first question is incomplete. Based on the review of the conceptualizations of each of these features, I contend that the second feature discussed, interdependence at cognitive, affective, and behavioral levels is equivalent to intimacy. Interdependence is an overriding theme of intimacy development under which

the other features are subsumed. Increased frequency, intensity, duration, and diversity of interaction reflect increased behavioral interdependence. Increased knowledge of the partner results from the increase in time spent together, but is dependent on the cognitive and affective elements of commitment, trust, and caring. Increases in commitment, trust, and caring reflect increases in cognitive and affective interdependence. Mutuality depends on all of the above. That is, mutuality can develop only when partners learn about and understand one another, when their concern for the relationship is greater than their concern for themselves, and when they each trust that the other will not harm them or exploit their vulnerabilities. To summarize, communication behaviors (increased frequency, diversity, duration, and intensity of interaction) both reflect and depend on relational partners' cognitions and emotions of commitment, trust, care, mutuality, and knowledge of personal aspects of the partner. All of these reflect affective, cognitive, and behavioral interdependence characteristics of intimacy in personal relationships. Thus, each of these features of intimacy is important to its development. Moreover, the level of interdependence between two people is dependent on each of these components of intimacy.

The elements that contribute to perceptions of an intimate relationship, with the exception of interdependence, are distinct from one another. For example, one may not care for an individual, but still trust in that person. On the other hand, care for another person does not guarantee that mutuality will develop, that partners are committed to the relationship, nor that partners trust one another. Commitment to a relationship does not mean that mutuality exists, and conversely, mutuality does not ensure commitment. Interactions may occur frequently, but may not be characterized by intensity or diversity, or they may be very infrequent, yet each contact may last a long time and include diverse activities. Meetings of very short duration that occur infrequently can be very intense.

Regardless of the length, diversity, frequency, and intensity of interactions, care, mutuality, commitment, and trust may or may not be present. Further, one may learn very little of the personal aspects of another in spite of lengthy or frequent interactions. Increased knowledge of a partner may cause one to decrease his or her level of trust in that person and/or commitment to the relationship. The conclusion, then, is that each of these aspects, except interdependence, is independent of the others, and relational partners are more likely to see themselves as intimate when more of these aspects are present than when they are not.

Along similar lines, Burgoon and Hale's (1984) conception of an intimacy construct includes nonorthogonal but conceptually distinct dimensions of affection, inclusion, involvement/receptivity, trust, and depth. They claim that these dimensions are not substitutable, but jointly operate to communicate intimacy. Burgoon and Hale (1984) do not attempt to demonstrate a causal or hierarchical ordering of these dimensions. The definition of intimacy offered here includes all of these aspects, incorporates additional factors such as commitment and mutuality, and assumes that each of the factors is conceptually distinct. The only hierarchy offered here assumes that interdependence encompasses the other concepts. Similar to Burgoon and Hale's (1984) classification system, a hierarchy among intensity, frequency, diversity, and duration of interaction, knowledge of the partner, mutuality, commitment, trust, and caring is not presumed.

The second question that arises is whether or not the preceding categories correspond with the average layperson's concept of intimacy. Only a few studies have asked subjects what is meant by intimacy or an intimate relationship. In 1980, Waring et al. published the results of two studies in which they asked open-ended questions of 50 adults about their conception of intimacy and then administered to 48 couples a standardized interview in order to operationalize various dimensions of intimacy. They found that self disclosure,

expression of affection, compatibility, cohesion, identity, and the ability to resolve conflict were important aspects of intimacy. Helgeson et al. (1987) and Monsour (1992) also asked subjects what they meant by intimate relationships and they found similar definitions. Self disclosure in the context of appreciation, affection, and warmth, physical contact, shared activities, sexual contact for cross-sex relations, trust, emotional expressivity, and unconditional support were important to these subjects.

These categories correspond with those deductively derived by earlier studies. For example, self disclosure is a means by which one develops knowledge of personal aspects of a partner. Cohesion is essentially commitment. Affection, appreciation, warmth, and emotional expressiveness all reflect caring. Physical contact, shared activities, and sexual contact all occur in the context of interactions with the partner. Compatibility is likely to lead to increased interaction and potentially reflects mutuality. Identity of a dyad may be a byproduct of their mutuality. One deductively derived category not mentioned by subjects is interdependence. This is perhaps due to its highly abstract or scientific nature. Subjects given the opportunity to provide open-ended responses about intimacy are likely to rely on their memories of concrete events and behaviors and to use more common-language labels for the aspects of intimacy they find important. Results of these studies imply that scientific speculations of the components of intimacy tend to correspond with the general population's concept of intimacy.

The preceding discussion clearly suggests that whether a definition of intimacy is inductively or deductively derived, intimacy is multifaceted, dyadic, and processual and that the qualities previously noted are necessary components of intimacy in relationships. This does not imply that a dyad must rate themselves high on every aspect, but the more aspects which are present in high levels would lead one to infer a high degree of intimacy

as compared to a dyad who is lacking in some of the components or who ranks low on some qualities. Thus, the following hypothesis is offered:

H1: Frequent, diverse, intense, and extended interaction with one's partner, knowledge of personal aspects of one's partner, mutuality, trust, care, and commitment all contribute significantly to intimacy in personal relationships.

Because interdependence at cognitive, behavioral, and affective levels is assumed to be the overarching characteristic encompassing the others, it is treated as equivalent to intimacy.

As noted previously, most researchers agree on these characteristics of intimate relationships, but there is some disagreement regarding the importance of the aspects relative to each other. Moreover, due to terminological and conceptual differences, some of these categories are blended or further subdivided in various schemes of close, intimate relationships. The saliency of these characteristics may increase, decrease, or remain constant across time for relational partners, and the rate of increase for each aspect may or may not be linear as intimacy develops over the course of a relationship. Instead, some aspects may reflect periods of stability or decline. For example, knowledge of personal aspects of the partner may be vital when a relationship has just begun, but its importance may stabilize, fluctuate, or diminish as two people come to know each other well enough to make predictions of the other's behaviors and thoughts (see, e.g., Baxter, 1990; Baxter & Bullis, 1986; Duck & Miell, 1986; VanLear, 1987, 1991).

That certain components may fluctuate over time as a relationship develops suggests that each component or aspect is more or less important in contributing to one's immediate assessment of intimacy in the relationship depending on where one is in that development. Knapp, Ellis, and Williams (1980) found, for example, that less intimate dyads were perceived as being more restricted in the amount of topics they discussed, the detail of those discussions, and the general amount of interaction they had when compared to more

intimate dyads. Further, earlier relationships reflected less flexibility, spontaneity, and smoothness of interaction than later, more intimate relationships. To the extent that expectations of appropriate behavior influence actual behavior as Duck and Miell (1986) argue, then differential expectations and schemas across relationship developmental phases would also indicate that various components of intimacy are differentially weighted as a relationship progresses. Supporting this conjecture, Honeycutt, Cantrill, and Greene (1989) confirmed that individuals have schemas (or what they call meta-MOPs) for the sequencing of actions that should occur as a relationship moves from initiation to bonding. Their results indicate that meeting, calling, and small talk ranked closely together and reflect initiation of a relationship, while meeting parents, bonding rituals, and expressing a verbal commitment ranked closely together and reflect integration of the relationship. Berg and Clark (1986) also make the argument that rules for social exchange apply differently to relationships that are considered close compared to those that are not as close. They review evidence suggesting those in close relationships make more frequent and diverse exchanges in response to a partner's needs and desires as compared to those in less close relationships who make less frequent and diverse exchanges on a more norm-governed (i.e., reciprocity) basis. As a final example of differences between different levels of intimacy in relationships, Miell and Duck (1986) report evidence that indicates appropriate topics of conversation and behaviors are different for a "new partner script" and a "close friend script." For example, new partners are expected to be reserved and polite, to limit the range of topics discussed, and to see the partner infrequently. Close friend scripts, on the other hand, include relying on mutual trust and shared knowledge, incorporating a wide variety of discussion topics, and seeing the partner frequently. This argument and review of representative studies suggests that some aspects of intimacy will be more important or salient than other aspects for those whose intimacy is initially

developing and that other aspects will be important for those whose intimacy is more developed. However, it is unclear which aspects are more important at which times in a relationship's development. Hence, the following research question is posed:

**RQ1:** Will the amount of variance accounted for by each component of intimacy in global perceptions of intimacy (interdependence) differ significantly for couples who have increased in intimacy over time as compared to those who report no change in intimacy over time?

Regardless of how these variables change over time, academic speculation combined with scientific assessment supports the conclusion that this set of factors represents a comprehensive yet parsimonious description of the elements necessary for the growth of intimacy. Further, different aspects are likely to be more important than others depending on the level of intimacy in a relationship.

It was argued previously that conceptually, intimacy is dyadic. However, several of the factors proposed to contribute to intimacy can be measured only at an individual level (e.g., commitment, trust, knowledge of the partner). Behavioral patterns (e.g., frequency, intensity, diversity, and duration of interaction) are necessarily dyadic because they require the participation of both partners. Psychological phenomena (e.g., knowledge of the partner, mutuality, trust, commitment, caring, and cognitive and affective interdependence) occur at the individual level, but for intimacy to exist, both partners must experience them. This requires researchers to assess psychological factors at an individual level, and then, to combine partners' measures on common variables in order to construct a dyadic level of each factor.

At this point, a definition of intimacy and its subcomponents has been offered and some speculation has been made as to how intimacy might develop in personal relationships across time. But nothing has been offered to explain how or why temporary

decreases or stabilizations in some of the variables might reflect a general perception of increasing intimacy. Hence, two alternative approaches currently used to describe and explain the development of intimate relationships are now reviewed.

#### Models and Theories of Intimacy Development

Two predominant approaches to intimacy development in close relationships are stage models and dialectic approaches. Stage models of relationship development typically describe stages through which partners proceed as they become closer by highlighting the unique properties characteristic of different levels of intimacy. Dialectic approaches, on the other hand, focus on the dynamic tensions experienced by individuals in close relationships, suggesting unique patterns at different levels of intimacy. A summary and critique of various theories and models within each approach are now discussed.

#### Stage Models of Relationship Development

Early conceptualizations of the development of intimacy in close relationships centered on a common framework, namely stage models. Perhaps the most familiar and widely-used model is Altman and Taylor's (1973) social penetration theory. Two more recent stage models are proposed by Levinger (1977, 1980, 1983) and Knapp (1978, 1984). One unifying theme of these models is the recognition of developmental changes over time. However, the presentations of most of these models are plagued with descriptions of processes occurring within stages at the expense of prediction or explanation of processes occurring between stages.

Altman and Taylor's Social Penetration Theory. Working from a social exchange perspective (see Roloff, 1981), Altman and Taylor (1973; Taylor & Altman, 1987) describe the development of intimate relationships along two dimensions of self-disclosure: breadth and depth. Through self-disclosure, partners form positive or negative impressions of each other based on the discovery of compatible or incompatible feelings and attitudes.

Positive impressions lead one person to regard the other as rewarding, while negative impressions lead to inferences of cost.

Social penetration theory posits that partners weigh the relative costs and rewards in the relationship, and compare this to the relative costs and rewards of other potential relationships. If rewards are perceived to outweigh costs, then greater self-disclosure will take place, resulting in a fairly steep slope of increasing relational intimacy. If, on the other hand, costs outweigh rewards, little or no verbal exchange occurs resulting in a nearly horizontal or negative slope of relational intimacy. (Verbal and nonverbal exchange itself may not decrease, but the meaning attributed to these behaviors may become negative resulting in a downward slope.)

Taylor and Altman (1987) propose four stages of relationship development: (1) orientation, (2) exploratory affective exchange, (3) affective exchange, and (4) stable exchange. Movement through these stages is assumed to be a cumulative and unidirectional increase of openness and intimacy. In the orientation stage, communication is predicted to be superficial in breadth and depth, primarily restricted to small talk and "safe" topics. In the exploratory affective exchange stage, disclosures are characterized by greater breadth and an intermediate level of depth. In the third stage, affective exchange, Taylor and Altman (1987) state, "Interaction at outer layers of personality is open, and there is heightened activity at intermediate layers of personality . . . Generally there is little resistance to open explorations of intimacy" (p. 259). At stable exchange, the fourth stage, there is continued openness and increasing depth across the spectrum of personality characteristics. Of the studies that have tested this theory (e.g., Davis, 1976; Hays, 1984, 1985; Taylor, 1968), it has been found that self-disclosures increase in breadth and depth over time, intimate disclosures occur at a slower rate than nonintimate disclosures, and the entire process of intimacy development is initially rapid and slows at later stages.

Knapp's stage model of relationship development. Relying on many of the same assumptions as social penetration theory, Knapp (1984) proposed a similar developmental model of intimacy. Knapp's (1984) five stages of coming together are (1) initiating, (2) experimenting, (3) intensifying, (4) integrating, and (5) bonding. The initiating stage is characterized by conventional forms of greeting. At this stage, potential partners present a pleasant and likable image while forming an impression of the other based on prior information and social stereotypes. In the experimenting stage, partners attempt to reduce uncertainty about the other by engaging in small talk and seeking areas of similarity. Topics are usually restricted to demographic information. The intensifying stage is marked by increased self-disclosure, direct expressions of commitment, the development of private symbols and verbal shortcuts, and more use of "we" instead of "I" and "you" pronouns. Knapp (1984) states, "As the relationship intensifies, each person is unfolding his or her uniqueness while simultaneously blending his or her personality with the other's" (p. 38). At the integration stage, the couple has merged two personalities into one. Manifestations of this are made public by the exchange of rings or pins, similar dress or communication style, and possession of common property. At this stage, physical synchrony and intimacy are heightened as is empathy. While certain sacrifices are made (e.g., changing one's religious beliefs or political affiliation) in order to achieve this state of integration, Knapp (1984) acknowledges that certain aspects of the individual are maintained. Bonding is simply the public institutionalization of the relationship. Knapp argues that bonding occurs in many forms (e.g., marriage, engagement, going steady) at other stages of development. He designates it as a separate stage because it ". . . may be a powerful force in changing the nature of the relationship . . ." (p. 39). Knapp implies that this stage is reserved exclusively for romantic relationships, but I contend that it can also occur in other types of relationships, e.g., the adoption of a step-child.

Knapp (1984) characterizes communication at the initiating stage as rigid, public, hesitant, awkward, stylized, difficult, and narrow, with overt judgments suspended. As intimacy increases, communication becomes more flexible, personal, spontaneous, smooth, unique, efficient, and broad, with overt judgments given. Thus, one potentially could rate a couple's communication at various points in time along these eight dimensions and be able to trace the development of an intimate relationship. Unfortunately, Knapp fails to offer any specific hypotheses or guidelines for the unique configuration of communication at specific stages. Because this is a model as opposed to a theory, it is not intended to facilitate predictions of intimacy growth, but the implication is that within a particular stage of relational development there is stability in the communication styles of the partners and each stage is characterized by a unique type of communication.

Movement in and among Knapp's (1984) stages is hypothesized to be guided by social exchange principles. That is, when perceived rewards outweigh costs, then movement should be toward greater intimacy. When perceived costs outweigh rewards, intimacy deteriorates. Moreover, Knapp (1984) claims that movement through stages is generally sequential and systematic, but stages may be skipped as when a formal commitment is made (bonding) during the intensifying stage. When stages are skipped, valuable information typically made available during the skipped stage may be lost, and uncertainty is increased. Once a couple moves into a new stage, stabilization should occur. If stabilization does not occur, the relationship is likely to slip back into the previous stage.

The only study found to directly test this model was conducted by Knapp et al. (1980). In their study, statements representing the eight dimensions of communication behavior proposed to distinguish among developmental stages were rated according to how much subjects thought the behavior was associated with one of six types of relationships. Each subject completed the task twice with two different relationships in mind. The terms used

to describe the six relationship types were deductively derived from a separate sample and were rank ordered according to the level of intimacy each implied. The six relationship terms used in descending order of intimacy were lover, best friend, friend, pal, colleague, and acquaintance. Submitting the statements of communication behavior to a factor analysis, Knapp et al. found that although they represent eight conceptually distinct dimensions, they reduce to three primary components of personalized (similar to depth or uniqueness), synchronized (defined by the smoothness of interaction, lack of difficulty, and spontaneity), and difficult (characterized by awkwardness and a lack of smoothness) communication. In subsequent tests, Knapp et al. (1980) found that subjects perceived a decline in personalized and synchronized communication as the relationship term they were instructed to think about in response to the behavioral items became less intimate. Though they did not test for linear trends, the authors note that the differences between the more intimate relationship types (i.e., lover, best friend, and friend) were less distinct than between the less intimate types (i.e., pal, colleague, and acquaintance). The third factor, difficulty of communication, did not vary systematically across relationship types. Thus, the authors argue that synchronous and personal communication best distinguish among varying degrees of intimacy in relationships. Though the results are interesting, the study itself does not test directly Knapp's conjectures about behaviors occurring in relationship stages or the movement in and among the stages. While the focus on communication behaviors as they relate to intimacy is noteworthy, intimacy is treated in this study as a static characteristic rather than dynamic process due to the use of relationship type labels.

Dindia (1991) more recently conducted an examination of the strategies of behavior employed in various relationship stages. Though she does not claim this study to be a direct test of Knapp's model, her reference to relationship stages roughly corresponds with

Knapp's and Altman and Taylor's notions of "stages" of relational development. Following a review of behavioral strategies found in previous studies to be indicative of each of four stages -- initiating, developing, maintaining, and repairing -- Dindia asked subjects to list up to ten strategies or behaviors they used in each stage. Responses were coded based on deductively derived categories from previous literature. The results indicate that 19 out of 24 strategies occurred in more than one phase of relationship development. Her conclusion is that it is less productive to examine strategies and behaviors as they occur within a stage than it is to examine relational change and maintenance strategies as occurring across stages.

Levinger's ABCDE model. Another model depicting the growth of intimacy in close relationships is offered by Levinger and his colleagues (Levinger, 1977, 1980, 1983; Levinger & Rausch, 1977; Levinger & Snoek, 1972). His stages of intimacy development are similar to the previous stages in that certain behavioral and communication properties are said to characterize different stages of relational development. His model, though, more thoroughly covers the conditions leading to movement through the stages and describes how movement between stages proceeds. That is, Levinger (1983) more directly addresses the processual nature of relationship intimacy. He includes three phases of a developing relationship: (1) phase A, acquaintanceship, (2) phase B, buildup, and (3) phase C, continuation. The last two, phases D and E, address the decline and termination of relationships. Thus, they are not reviewed here.

In phase A, two people initially attend to each other. Various aspects of the social (e.g., social network, social norms) and physical environment (e.g., proximity, density) either facilitate or inhibit the recognition of another as a potential partner. Certain internal states, such as loneliness or the readiness to form an intimate bond with another, are also believed to impact the recognition of potential partners. If initial interactions are

mutually enjoyable, then Levinger (1983) claims that ". . . a couple may act to alter inhibiting environmental conditions" (p. 324) thereby increasing the probability of future interactions.

The transition from phase A to phase B can occur suddenly (e.g., a mutual revelation of interdependence usually following a critical or unexpected event) or gradually (e.g., occasional lunch dates that lead to more frequent and diverse shared activities). Personal and environmental factors can inhibit or facilitate this process. For example, a previous commitment (a personal factor) could preclude (inhibit) one partner's ability to meet the other for dinner. In contrast, a mutual colleague may have a business-related cocktail party (an external factor) which the two partners individually are obligated to attend, facilitating the opportunity for increased interdependence. Kin and friends may interfere at this point also.

Levinger (1983) posits that more compatible interactions than incompatible interactions lead to satisfaction and to expectations of a compatible relationship. As couples recognize their interdependence, criteria for judging satisfactory outcomes may change (Kelley, 1979). That is, self-centered criteria evolve into pair-centered criteria. Moreover, the complementary roles of the partners become more flexible. For example, each serves as a listener or decision-maker at different times. One might compare this phenomenon to Erikson's (1968) conception of intimacy in which potential relational partners compare and fuse their identities. They become more interested in the quality of the relationship and their partners' satisfaction than in themselves.

In phase B, the buildup phase, partners come to expect mutually rewarding outcomes from their interactions and the frequency and diversity of behavioral interaction increases, resulting in greater interdependence. This phase is marked by much uncertainty and instability (Levinger, 1983). Although there is little empirical evidence of the processes

occurring in this stage, Levinger (1983) suggests that dialectic oppositions may explain the evolution of increasing interdependence. He states that ". . . 'progress' is not necessarily constant . . . The unfolding picture looks different at any present moment from the way it looks in retrospect" (p. 327). Duck (1991) elaborates this point by stating, "A clear way in which people organise and give meaning to relationships and to the variabilities of their experience is through the organisation of memory and the flattening, levelling, and systematizing effects that it produces" (p. 6). Levinger (1983) argues that individuals spend a great deal of time thinking about their relationships, the costs and rewards associated with them, only in the initiating phase. Once a relationship becomes more established, contemplation of costs, rewards, and alternatives are posited to interfere with the enjoyment of the present state. Hence, Levinger (1983) provides a plausible reason why relational partners fail to recall specific events or behaviors leading to changes in later relationship development and contributing to the paucity of research of this phase. It may be at this point that more conscious social exchange processes are transformed into more automatic and tacit dialectic processes.

The transition from buildup to continuation (phase B to phase C) represents a movement from instability to relative stability for the relational partners as a result of increased commitment to the relationship. Kelley (1983) suggests a number of causes that lead to greater commitment. These include ". . . improving the reward-cost balance of membership, making irretrievable investments, heightening termination costs, or forming explicit understandings of partnership . . ." (Levinger, 1983, p. 333). According to Levinger (1983), commitment may result from a growing personal involvement or it may precede personal involvement (as in arranged marriages). This transition does not necessarily occur at a single point in time, but may overlap with processes occurring in acquaintance, buildup, and continuation phases.

The instability experienced in the buildup phase is contrasted with the stability and predictability of the continuation phase. Continuation, phase C, entails a public announcement or explicit statement about the state of the relationship. External forces, such as parents and friends, may test the strength of the couple's interconnections at this stage. Internally, partners may also test each other's commitment and trust. For example, Gottman (1979) found that frank communication and signals of negative affect are exchanged more frequently between marital partners than between less committed couples. It may be that once a formal commitment has been made, relational partners no longer concern themselves with impression management and uninhibited expression of true feelings becomes the rule rather than the exception as a means of testing the partner's commitment to the relationship. (This appears similar to Knapp's evaluation dimension which entails less inhibited expression of both positive and negative feelings.) Levinger depicts a trajectory of relationship development that is initially unstable but later becomes more stable as partners are able to predict one another's behaviors and feelings, and intimacy increases.

A large portion of the evidence cited as supporting this model is either anecdotal or secondary. In his summary of the model and review of literature, Levinger (1983) clearly explains this model simply serves as an organizing device which ". . . is long enough to permit differentiation, but short enough for easy comprehension" (p. 322). He adds that researchers from different fields have tended to focus their attention on different phases of the model while neglecting other phases. Levinger's own analysis incorporating the model as an organizing tool relies on data from interviews conducted separately with Tom and Susan Darber, a couple from New England whose 22-year marriage ended in divorce. Except for information provided about their present status, their accounts are retrospective. Levinger (1983) uses the information each partner provided which includes

explanations for divergent accounts to illustrate each phase and transition between phases in his ABCDE model. He acknowledges that this is one case study; other pairs will likely provide different information, especially if their relationship is qualitatively different (e.g., coworkers or kin relationships).

Levinger (1983) also cites evidence from other empirical and qualitative studies to support various phases in his model. For example, Huston and Levinger (1978) provide an extensive literature review focussing on initial attraction and impression formation, two primary activities occurring in the acquaintanceship phase. They conclude that many of the studies they survey do not investigate interactions beyond early encounters in a laboratory, but they infer that initial attraction and positive impression formation lead to subsequent buildup of the relationship. Anecdotal evidence from the Darbers' interviews is offered in support of the transition from acquaintanceship to buildup. Levinger (1983) discusses the personal and environmental conditions and the successful testing of their bond strength which prompted the Darbers to move to a deeper level of intimacy. Evidence derived from tests of Altman and Taylor's social penetration theory as well as anecdotal evidence from the Darbers is offered as illustration of processes occurring in the buildup phase. Levinger (1983) argues that the transition from the buildup phase to the continuation phase is often imperceptible. He discusses case studies and offers examples but no empirical evidence of commitment preceding and following personal involvement. As evidence for the continuation phase, studies of marital satisfaction (e.g., Blood & Blood, 1978; Blood & Wolfe, 1960) are offered. Many of these studies entail interpretations based on retrospective accounts from only one dyadic partner. The results are inconclusive (i.e., some studies report a steady decline in marital satisfaction while others find no evidence of decline) and do not provide information on the interactional patterns or processes that contribute to assessments of satisfaction (or dissatisfaction).

Levinger (1983) speculates and illustrates with case studies the impact of parenthood and one spouse's serious illness on satisfaction and commitment. He also cites Gottman's (1979) work reporting that distressed couples tend to reciprocate negative affect while non-distressed couples reciprocate positive but not negative expressions. In sum, separate studies are used as illustration of individual processes or phases in Levinger's (1983) relationship development model, but no work other than the use of retrospective interviews attempts to study the longitudinal process of relationship development according to this model. To his credit, Levinger does not argue that his model is superior, only that it is one means by which relationship development information can be organized.

Critique of stage models. With the exception of Levinger's model, two issues remain problematic for stage models of relational development. First, they assume a unidirectional and linear increase in intimacy. Second, they fail to explain or describe changes occurring in many of the aspects deemed essential for intimacy development. That is, stage models are limited in the number and types of phenomena employed to explain relationship development.

Taylor and Altman (1987), for example, rely primarily on self-disclosure processes to the exclusion of other essential cognitive and affective elements. The focus on overt behaviors by these authors implies that psychological factors are secondary to behaviors in the perception of intimacy. Their model assumes reciprocity of disclosure as the vehicle propelling interactants toward greater intimacy. Based on the argument offered in the conceptualization of intimacy, this assumption implicitly suggests that commitment, trust, and caring also develop linearly and unidirectionally and may serve as rewards. Lack of commitment, trust, and caring may represent costs. In focusing solely on the reciprocity of verbal disclosures and other communicative behaviors, social penetration theory slights the facilitative quality of complementarity or compensation in interactions and the

potentially detrimental effects of the reciprocity of negatively valenced disclosures and behaviors.

Knapp's (1984) model includes nonverbal behaviors along with verbal disclosures to describe varying levels of intimacy, but because the same assumption of reciprocity or a social exchange principle is invoked, this model shares many of the same faults as social penetration theory. That is, Knapp advocates a linear and unidirectional description of intimacy development. Further, he assumes stability in each stage before a relational pair can move on to a more intimate stage. These assumptions belie the reality of fluctuations in intimacy development. However, this model may accurately reflect the perceptions of relational participants who tend to recall a "smoother" progression of intimacy development than actually occurred (Duck, 1991).

Levinger's (1977, 1980, 1983) model not only includes descriptions of all relevant aspects of intimacy as relationships develop, but also considers the environmental and individual conditions that facilitate or inhibit the growth of intimacy. He also acknowledges and attempts to explain patterns of fluctuating intimacy, at least in his buildup phase. Thus, he does not share the view that intimacy develops in a linear and unidirectional fashion. Because he incorporates the essential components of the intimacy construct in this model, and because he does not assume an ever-increasing trajectory of intimacy, Levinger's model is perhaps the most comprehensive and accurate representation of what actually happens to intimacy on a microscopic (or daily) basis. Ultimately, researchers will need to examine the impact of all the variables proposed by Levinger in order to test his model.

The descriptions of processes occurring at various stages of intimacy development provided by stage models are similar. These models all speak to similar communication characteristics unique to particular stages of intimacy development. They also describe a

similar pattern of movement through the relationship stages, perhaps because they all implicitly or explicitly invoke the social exchange process of weighing relative costs and rewards of the relationship. Therefore, it can be argued that when viewed macroscopically (or in retrospect), intimacy appears to develop linearly, cumulatively, and unidirectionally. Hence, the following hypothesis is forwarded:

- H2: For couples reporting increased closeness over time, there will be a linear trend of increasing intimacy (interdependence) at a global level.

#### Dialectic Approaches to Intimacy Development

With the exception of Levinger who employs a dialectic explanation in the buildup phase, stage models of intimacy development do not explain the daily, weekly, or monthly fluctuations of intimacy expression so often witnessed in relationships. Several scholars suggest that a dialectic approach better explains relational growth than the more linear stage models. Dialectics can be employed as an explanatory mechanism for how and why change occurs in developing relationships. However, when dialectics are used to describe a couple at a particular point in time, they do no better at explaining a process of deepening involvement than earlier stage models. Dialectics occur at many levels. For example, sociologically, dialectic forces are said to explain class struggles. Individually, though, dialectics represent competing needs for communion and individuation. In this discussion, dialectics are conceived to operate within the individual rather than at a sociological level.

Overview of the model. Altman, Vinsel, and Brown (1981) describe three distinguishing features of a dialectic approach: (1) the existence of oppositions, contradictions, and polarity in social processes, (2) the unity of opposites, and (3) the concept that the oppositions are in a constant state of flux, each influencing the other(s). The oppositions present in interpersonal relationships include openness-closedness,

stability-novelty, and autonomy-connection. A discussion of these is forthcoming. A dialectic approach implies a unity of opposites (Adler, 1927, 1958; Altman et al., 1981; Baxter, 1989; Mao, 1972a, 1972b). Unlike systems theorists who claim that organisms and processes tend to move toward a state of homeostasis (Bateson, 1980; Katz & Kahn, 1978), dialectic theorists such as Altman et al. (1981) do not claim a basic motive of stability. Instead, they ". . . assume that people exhibit both stability and change in their social relationships, not primarily one or the other, and that these oppositions cycle over time, one dominating at one time and the other dominating at another" (Altman et al., 1981, p. 108). Baxter (1989) adds that there are multiple oppositions operant in any relationship. According to the principle of totality, each of these dialectic tensions contextualizes and interacts with the others, but there is typically a primary dialectic that ". . . plays a key role in influencing how the other secondary contradictions function" (Baxter, 1989, p. 7). Thus, interpersonal dialectics involve a number of oppositions operating in unison and constantly changing.

Dialectic oppositions. One point of disparity among scholars taking a dialectic approach centers on the number and type of oppositions operant in relationships. For example, Rawlins (1983) argues for a primary dialectic of freedom-restraint. He defines interpersonal freedom as the ability to do or say what one wishes with respect to another individual. There are varying degrees of freedom depending on the circumstances and individuals involved, and complete freedom or restraint in a relationship is impossible. This is consistent with Altman et al.'s (1981) supposition that the presence of one extreme of a dialectic dimension necessarily contains some element of the opposing quality; the complete absence of one endpoint's quality is impossible. Altman et al. (1981) propose two dialectic oppositions: openness-closedness and stability-change. Baxter (1988, 1989) more recently identifies three primary oppositions forming the basis of change in relationships:

openness-closedness (an expression dialectic), novelty-predictability (a change dialectic), and autonomy-connection (an integration dialectic). The first two dialectic oppositions, expression and change, are similar to Altman et al.'s (1981) two dialectic dimensions. The dialectic of integration relates to Cupach and Metts' (1986) concept of increased structural and emotional interdependence, characteristic of formally committed rather than more ambiguous dating relationships. This third dimension also relates to Rawlins' (1983) notion of freedom. Thus, relationships can be characterized by the extent to which partners express themselves, can predict one another's behavior and affect, and are dependent on one another to fulfill their needs and goals.

Tests of the model in interpersonal relationships. Based on four qualities of dialectic cycles, Altman et al. (1981) posed several propositions about the development and management of intimate relationships. Dialectic cycles can be described in terms of their regularity, relative duration, frequency, and amplitude. Duration and frequency are necessarily inversely related. Altman et al. (1981) suggest that the amplitude and frequency of the openness-closedness dialectic vary as a function of developing relational intimacy, such that restricted amplitude and high frequency of fluctuation characterize less intimate stages, and greater amplitude coupled with low frequency of fluctuation characterize more intimate stages. These authors further posit that topic intimacy will influence the nature of the openness-closedness dialectic such that fluctuations will occur with greater frequency for nonintimate topics than for intimate topics. Finally, Altman et al. (1981) speculate about the congruence of dialectic cycles between partners as an indication of the relationship's stability and viability. This congruence can be translated as a type of reciprocity in the relationship. They proffer a number of research questions, but do not offer definitive propositions or hypotheses about dialectic congruence.

Only a few researchers have put Altman et al.'s (1981) conjectures to an empirical test. Based on Altman et al.'s (1981) propositions, Baxter and Wilmot (1983) examined the frequency and amplitude of the openness-closedness dialectic. In accord with Altman et al.'s proposition, Baxter and Wilmot (1983) hypothesized lower amplitude and greater frequency of cycling in early stages of relationship development than in later stages. Using self-report data of perceived openness, they found greater cyclical frequency in earlier rather than later stages of development, but contrary to their hypothesis, they found greater amplitude fluctuations in earlier rather than later stages. The greater amplitude may reflect the instability Levinger (1983) claims is characteristic of early intimacy development. In another study, VanLear (1987) found evidence of cyclical patterns of reciprocal self-disclosures at four levels of intimacy. This contradicts the social penetration prediction that self-disclosures become increasingly more intimate in a linear fashion as relationships progress. Instead, the results of this study suggest that self-disclosure waxes and wanes over time as partners come to know one another.

Because of methodological difficulties encountered in these studies, VanLear (1991) conducted two longitudinal studies examining the relationship between self-reports of perceived openness and behavioral evidence of openness. He also examined characteristics of self-disclosure cycles in developing relationships. His results indicate recurrent complex cycles of behavioral openness and closedness (operationalized as depth of self disclosure) occurring within and across interactions. Further, participants reported perceiving their own and their partners' behavioral fluctuations of openness and closedness. In contrast to Baxter and Wilmot's (1983) results, VanLear (1991) reported a trend of increasing cyclical amplitude as relationships developed across time, a pattern that was matched by partners. Although VanLear's (1991) results indicate synchrony or congruence of two partners' cycles of self disclosure, he suggests that synchrony of

patterns may be a relational phenomenon not always deemed appropriate. That is, while reciprocity of openness or involvement may represent the status quo, there is evidence to suggest that reciprocity can be inappropriate at times and complementarity of roles or compensation within interactions actually facilitates relational development.

While VanLear's (1991) two-part study overcomes obstacles found in past research on dialectic tensions in relationships, his study is still incomplete in some respects. On the positive side, VanLear employed a greater number of subjects than previously studied, examined the congruency of two partners' fluctuations in openness and closedness, examined the extent to which partners perceived their behavioral changes, and utilized complex statistical analyses to arrive at a highly detailed description of relational openness and closedness. On the negative side, however, his behavioral data are drawn from a population of previously unacquainted dyads who interacted for only four weeks. VanLear (1991) himself notes this may not be sufficient time for a relationship to develop, and the motivation of the participants to interact with their partners may have been artificial. To counter this deficiency, the perceptual data in the second part of his study were provided by members of ongoing relationships. These relationships included friendships, marriages, and romantic relationships. Although each of these relationship types has the potential for intimacy to develop, it is likely that they differ in the rate and extent to which intimacy develops. To combine information from the three relationship types is potentially problematic in that very large and small fluctuations in openness could be masked. Moreover, comparing the observations of one sample to the perceptions of a different sample can be misleading. That individuals in ongoing relationships perceived fluctuations in openness and closedness does not ensure that newly acquainted pairs who behaviorally manifest the dialectic of expression are cognizant of these fluctuations. Hence, the conjecture that perceptions are related to actual behaviors must be accepted

with caution. One final criticism of VanLear's (1991) study can be applied to a majority of studies in this area. That is, the studies reviewed thus far all focus on perceptions of openness and self-disclosure behavior to the exclusion of other communicative behaviors and dialectic tensions. Thus, we are left with an incomplete picture of how dialectics operate in the development of intimate relationships.

Baxter (1990) recently conducted a more qualitative study of dialectic tensions in ongoing relationships in which she examined all three of the primary oppositions discussed previously. She restricted her sample to romantic relationships and asked one partner in each to provide an interviewer with a table of contents for a book about his or her relationship. The "chapters" that subjects provided represented ". . . a stage or period in the relationship's history different from other stages or periods" (p. 75). Subjects were then given a description of the three dialectic dimensions, asked to describe each chapter, and respond to questions from the interviewer soliciting information on whether a single pole of an opposition was desired or how a desire for both endpoints of a dimension were handled during each "chapter." Her results indicated all three oppositions' presence in the majority of stages reported. Baxter (1990) found that the openness-closedness dialectic was reported more frequently than the other two dialectic tensions in initial developmental stages. Oppositions of autonomy-connection and novelty-predictability were reported more frequently in subsequent stages. This finding was further supported by an analysis comparing relationship length to the reported presence of the three dialectic oppositions. Baxter (1990) acknowledges the potential biasing effect of providing subjects with information of dialectic oppositions; that is, she may have made these tensions salient. However, Rawlins (1983, 1992) used a less structured and more oblique interview strategy to solicit evidence of oppositions and concluded that contradiction is a salient theme in close relationships even without researcher prompting. Another problem evident in

Baxter's (1990) study is the reliance on only one partner in the relationship for information. In spite of this, her study provides evidence that at least three dialectic contradictions operate in developing relationships, contradicting the predictions of linear and cumulative intimacy growth suggested by stage models.

Critique of the dialectic model. The methodological difficulties associated with testing this model are perhaps a reflection of the relative paucity of research conducted in this area. Rather than belabor the point and recognizing that with time and use, methodological problems will be overcome, this section reverts to the larger issue of conceptual difficulties associated with the application of dialectic principles to intimacy development in interpersonal relationships.

Applying the dialectic approach to the variables necessary for intimacy's growth, one would expect each of the features to fluctuate over time. Several who have discussed and used the dialectic approach claim that the cycles are ". . . periodic and predictable [and this] does not imply that they are simple or that their frequency, amplitude, and duration are rigidly uniform over time" (VanLear, 1991, p. 342; see also Altman et al., 1981; Fisher, Glover, & Ellis, 1977). Since research evidence supports the notion of a dialectic fluctuation in self disclosure and perceptions of openness, it is likely that additional elements comprising intimacy also fluctuate. This leads to the following hypothesis:

**H3:** For couples reporting increased intimacy over time, there will be nonlinear patterns for each of the components contributing to intimacy (i.e., frequent, diverse, intense, and extended interaction with one's partner, knowledge of personal aspects of one's partner, mutuality, trust, care, and commitment).

Dialectic contradictions can be used to explain the fluctuations experienced in any of the aspects of intimacy. For example, relationships in which the partners have been physically separated or have been non-communicative for a period of time could be

characterized as falling on the autonomous end of the autonomy-connection dimension or the closed end of the openness-closedness dimension. Dialectic principles suggest that as one approaches an extreme of a dialectic opposition (e.g., autonomy or closedness), there is a tendency to cycle back to the other extreme of the opposition. Based on Baxter's (1990) and VanLear's (1991) findings, one would expect greater fluctuations of expression in the early phases of relationship development than in later phases. Because behavioral, cognitive, and affective interdependence are expected to become more flexible over time, greater fluctuations in the autonomy-connection dialectic should occur at later stages. Finally, the dialectic opposition of novelty-prediction is reflected in the pattern of the intimacy curve. Irregularly-occurring fluctuations in amplitude, frequency, or duration suggest more novelty than predictability, whereas regular fluctuations suggest more predictability than novelty. Similar to the other two dialectic contradictions, too much predictability (regularity in the intimacy curve) leads to novelty (irregularity in the intimacy curve) and vice versa. This depiction of intimacy changes in relationship development utilizes the principles of dialectic oppositions.

A purely dialectic model assumes that the bipolar ends of an opposition have equal weight in the "pull" they exert, similar to a pendulum or sine wave. If this is the case, then global perceptions of intimacy would neither increase nor decrease, but instead would cycle around a home base or equilibrium point. This presents another conceptual problem with the dialectic model: When or under what circumstances will relational partners fail to cycle back to an opposing extreme or in cycling back, when does their intimacy exceed the previous level of a particular opposition? Lewin (1951) proposed a field force theory later explicated by Knowles (1989) which can be used to explain these circumstances. According to field force theory, people have internal needs and tensions to approach or avoid goals they consider attractive or unattractive. Goals may include but are not

restricted to having relationships, experiencing intimacy, and avoiding loneliness. Goals are valued when the individual has a high need for the goal; they are not valued when there is little or no need for the goal. Knowles (1989) writes, "As a goal moves closer to the person, the forces pushing the person toward or away from that goal get stronger" (p. 57). He adds that when goals such as friendship, warmth, or intimacy are desired, they are ". . . probably more valued the more remote and inaccessible they are" (p. 62). The closer one approaches a goal, the weaker is the approach force toward that goal. Dialectic oppositions may be seen as goals. A person may desire connection with another. The more inaccessible that goal appears to be, the more valuable it is to the person desiring it. On the other hand, the more connection that person gains with another, the more likely one's need for connection will diminish.

In addition to force fields operating in interactions, there are a number of critical events which may serve to propel partners toward or away from each other. Baxter and Bullis (1986) found 26 turning points which reduced to 14 supra-types. They also found that many of these turning points were associated with changes in the level of commitment between partners. Some examples include the first meeting, first date, meeting the partner's family, physical separation, first sex, and first kiss. Other turning points such as activity time, competing demands, and quality time are not necessarily related to specific points in time but instead to repeated events or the quality of events. Another pair of researchers, Lloyd and Cate (1985), conducted an investigation of the impact of "critical events" on relational growth and deterioration. In their search for attributions associated with critical events, they provided a number of additional examples of events that may explain why one end of a dialectic pull may be stronger than its opposite. Attributions were found to be related to the following: conflict, self-disclosure, redefining the level of involvement in the relationship, recognition of a change in the level of interdependence,

actual and anticipated interaction with others including family, friends, other dating partners, and co-workers, and events that are external to the relationship such as a change in job or health or an accident. Lloyd and Cate (1985) found that turning points or critical events cause or mark significant changes in the likelihood of marriage between dating partners. Further, these changes may reflect temporary decreases followed by increases in partners' perceptions of the likelihood for marriage, resembling fluctuations one would expect if dialectic forces were in operation. Thus, communication that occurs during these critical events and resultant cognitions and emotions cause people to become more or less intimate, but the nature of the fluctuations is unclear. Therefore, the following research question is posed:

RQ2: What patterns over time best describe each component contributing to intimacy?

A final issue requiring attention relates to the congruence between two relationship partners' perceptions. As noted previously, Altman et al. (1981) posit that congruence between two people's dialectic cycles indicates the relationship's stability and viability. VanLear (1991) attempted to examine the possibility of congruence and found that subjects tend to match their own openness with the perceived openness of their partners. He also found that cycles of openness for self and perceived cycles of openness for the partner corresponded with cycles of communication satisfaction. The data for this analysis, however, were derived from a single partner in a relationship. At best it can be said that relationship parties tend to match their perceptions to their partners' self disclosure behavior and this corresponds with communication satisfaction. Dindia (1988) reports evidence that perceptions of self disclosure correlated positively with perceptions of partner self disclosure (intrapersonal perceptions), but self perceptions of both partners (interpersonal perceptions) were unrelated.

What remains unknown is whether congruence in actual feelings, behaviors, and thoughts between partners is likely to indicate changes in the relationship's intimacy. VanLear's (1991) work suggests that congruence indicates satisfaction. Taking this a step further, satisfaction implies increased or stabilized intimacy. However, Gottman (1979) provides evidence that reciprocity (a more stringent version of congruence) of negative affect occurs more frequently between marital partners than between those less committed. Further, Hinde (1981) and Berg and Clark (1986) claim that reciprocity generally reflects less intimate relationships. Even VanLear (1991) notes that verbal reciprocity is not always appropriate and might decrease as two people become more intimate. Therefore, the following research question is posed:

RQ3: Does congruence in partners' perceptions of the components contributing to intimacy indicate a global perception of increased intimacy?

#### A Hybrid Model of Intimacy Development in Relationships

To summarize, the preceding arguments lead to several conclusions and suggest areas in need of attention about the development of intimacy in close relationships. The construct of intimacy should be treated as a dyadic phenomenon that changes over time. It is assumed that intimacy is manifested by behavioral, cognitive, and affective interdependence between two individuals. Conceptually, intimacy is dyadic, but several contributing factors can be assessed only at an individual level. This requires researchers to construct dyadic-level measures in order to remain isomorphic with the conceptualization of intimacy. Further, intimacy is not restricted to romantic or marital partners, but can be seen in a wide variety of relationships such as parent-child, sibling, and friendship relationships. However, membership in one of these types of relationships does not ensure that it would rank above the midpoint on an intimacy continuum. All relationships could be described as falling somewhere on an "intimacy continuum" that

ranges from very close to not close at all. Moreover, the degree of intimacy in any one relationship at any given time is likely to change, given the assumption of intimacy as a process. The processual nature of intimacy explains why relational partners must "work" at their relationships; that is, intimacy can increase or decrease depending on the nature of a dyad's dialectic oppositions and how well partners manage their communication and other behaviors.

According to stage models of intimacy development, the features of intimacy would be predicted to increase unidirectionally as relationships develop. In other words, (1) relational partners would be expected to engage in longer and more frequent, diverse, and intense interactions; (2) the strength of their interdependence would increase; (3) partners would continue to increase in their knowledge of personal aspects of one another; (4) mutuality would develop and continue to be renegotiated and clarified; and (5) commitment, (6) trust, and (7) caring would increase over time. Moreover, stage models would predict that increases in each of these features are cumulative and linear. The problem with Knapp's (1984) and Taylor and Altman's (1987) stage models, though, is that they cannot explain why partners might report increasing intimacy even though one or more of these aspects might decrease or fluctuate on a daily or weekly basis. In addition, these stage models assume a plateau of intimacy as a "goal" to be achieved. However, this assumption contradicts the processual nature of intimacy and implies that once this "goal" is achieved, intimacy can only decrease. In this conceptualization, there is not an assumption of an intimacy plateau, but instead the possibility remains for continued long-term increases in intimacy interspersed by periods of decline or stabilization.

The alternative explanation of relational development, the dialectic approach, suggests that each of these features would fluctuate over time. Just like a pendulum, there is no presumption of a final state to be achieved. However, if one assumes that the two ends of

each opposition have equal weight in the "pull" they exert, then intimacy would never develop.

A hybrid model derived from the assumptions and explanations offered here suggests that dialectic oppositions operate on a more microscopic level, explaining intimacy changes within relationships, while a stage model roughly represents intimacy development at a macroscopic level, describing communication patterns at certain levels of intimacy. Dialectic contradictions explain the fluctuations experienced in any of the aspects of intimacy. For example, relationships in which the partners have been physically separated or have been non-communicative for a period of time could be characterized as falling on the autonomous end of the autonomy-connection dimension or the closed end of the openness-closedness dimension. Dialectic principles suggest that as one approaches an extreme of a dialectic opposition (e.g., autonomy or closedness), there is a tendency to cycle back to the other extreme of the opposition.

In a general sense, developing relationships reflect a pattern of increasing or stabilized intimacy, while deteriorating relationships reveal a pattern of decreasing intimacy. When two people first meet, they know little or nothing about each other except physically apparent qualities and any other information acquired from external sources. If perceptions of the initial encounter are positive, then potential partners are driven to reduce their uncertainty about one another (Berger, 1987; Berger & Calabrese, 1975). As long as previous interactions are rewarding, partners will increase the frequency and diversity of shared activities and continue to explore each other's personalities, in accord with social exchange principles. However, as mutuality develops and as partners consider the needs of the relationship or their partners over their own, social exchange and uncertainty reduction theories become less useful in explaining changes in intimacy. A dialectic approach might better explain increasing intimacy in relationship development as

habits and routines are developed. If pulls toward openness and connection are greater than preceding pulls toward closedness and autonomy, then intimacy is expected to increase. If, on the other hand, pulls toward closedness and autonomy are greater than earlier fluctuations in the opposite direction, then intimacy is expected to decrease. These "pulls" are caused by the critical events or changes in the field forces discussed previously. Thus, as intimacy develops over time, communication moves from a conscious exploration of the partner, relationship, and self (social exchange principles) to habituated, more mindless routines (dialectic principles). It may be that partners become more conscious of their intimacy and relational communication when repetitive patterns are violated, as in the case of critical events or turning points.

The discussion thus far implies that two partners have congruent dialectic patterns resulting in a single intimacy curve for the relationship. What about the case where one partner is high on the openness end while the other is high on the closedness end of the expression dialectic? An incongruent pattern might reflect complementarity in the relationship. Alternatively, it might reflect some kind of conflict in the relationship. Because there is little research addressing the congruence of two individuals' dialectic pulls toward or away from expression, integration, and change, this issue is examined in this investigation.

## CHAPTER 2

### METHOD

In overview, both partners in romantic relationships individually completed items measuring the factors contributing to intimacy on a daily basis for six weeks. They also responded to items assessing global intimacy (interdependence) once each week for the full six weeks. On the final day of the study, each subject completed demographic and criterion measures in order to facilitate their classification into broad categories.

#### Participants

An initial sample of subjects ( $n = 38$ ) was recruited from undergraduate communication studies courses offered in the spring, 1993 semester at New Mexico State University. They were offered one unit of communication research credit in exchange for their own and their relationship partners' completion of the study. To supplement this initially small sample size, student participants were allowed to receive up to three units of credit for their own and two extra couples' participation. Those not currently involved in relationships could recruit and ensure three other couples' participation and receive the credit. This snowball sampling technique yielded 39 more dyads. Of these 77 dyads, seven receiving course credit and 14 recruited by students failed to complete the study. Reasons for dropping out included: being too busy ( $n = 2$ ), skipping a week and giving up ( $n = 2$ ), conflict ( $n = 1$ ), disinterest ( $n = 1$ ), relationship termination ( $n = 1$ ), lack of motivation or understanding because they were recruited by someone other than the researcher (these were all mailed out;  $n = 7$ ), terminally ill family member ( $n = 1$ ), and unknown ( $n = 4$ ; two of these were recruited by a student who discontinued because he was too busy). Further, one couple in their 80s felt the questions did not apply to them and another couple turned in data erratically, causing the researcher to question its validity.

Two additional sampling techniques were used to obtain subjects. Friends and family members of the researcher and her husband sought volunteers from their places of employment and churches. Initially, 27 dyads were contacted and 20 completed the study. The two primary reasons for failing to complete the surveys were that subjects were too busy and, having skipped a few days, they thought they were disqualified from further participation. The second technique was unexpected and resulted from some of the previous strategies. The Information Services Office at New Mexico State University interviewed the researcher about her study for a Valentine's Day news release which appeared in several local papers. Three dyads who read the article contacted the researcher and completed the study. Finally, 18 pairs heard from those already participating about the utility of the study and volunteered. Five of these discontinued before completing the study with the reason that they were too busy or had an emergency arise, causing them to skip several days of forms. In all, 125 pairs began the study and 33 withdrew before its completion, leaving a 27% attrition rate ( $N = 92$ ).

Because a somewhat homogeneous sample was sought for the purpose of achieving at least moderate power in the analyses, only those in romantic heterosexual relationships were recruited for this study. Duck, Rutt, Hurst, and Strejc (1991) argue that research aggregating data from qualitatively different types of relationships is problematic because there are ". . . grounds for believing that there are psychological differences in the character of relationships and that these differences are mirrored in communication" (Duck et al., 1991, p. 230). In light of this argument and considering that this study represents a novel approach to intimacy and its development, it was prudent to limit the general relationship category for this study and leave to future studies the examination of different populations such as homosexual, platonic friendship, and work and family relations.

The type of attachment between dyad members was the only homogeneous characteristic of this sample. The variety of ways by which dyads were recruited provided a heterogeneous sample for this study. Ages of the subjects indicate this was not a typical college sophomore population (Males  $\bar{M} = 35.38$ ,  $s = 13.49$ , range = 19-69; Females  $\bar{M} = 33.24$ ,  $s = 12.54$ , range = 18-65). The subjects' years of education further supported this notion (Males  $\bar{M} = 15.78$ ,  $s = 2.41$ , range = 12-24; Females  $\bar{M} = 15.02$ ,  $s = 2.10$ , range = 12-20). Although the mean years of education suggested a majority of college juniors, the standard deviations and ranges indicated a more heterogeneous sample ranging from high school graduates (12 = high school) to those with doctoral degrees and some post-doctoral education. A question asking subjects about the length of time they had known their partners suggested a bias toward those with longer rather than shorter relationships (Males  $\bar{M} = 11.29$  years,  $s = 12.39$  years, range = 2 months - 48 years; Females  $\bar{M} = 11.12$  years,  $s = 12.33$  years, range = 2 months - 49 years). About two-thirds ( $n = 61$ ) of couples in this sample lived together and the remainder ( $n = 30$ ) maintained separate residences. One couple disagreed on this variable and when questioned, reported that they lived together about four out of seven days. The mean number of children reported was 1.08 ( $s = 1.49$ , range = 0-6). Just over half the sample had no children ( $n = 48$ ); of those who did, the mode was 2. Six couples' responses to this item did not correspond, and when asked about the discrepancy, it was discovered that these were second marriages. Some partners were reporting on their natural children only while others were including step- and adopted children.

Not all couples came from Las Cruces, NM. Fifty-eight percent of the sample resided in Las Cruces at the time of the study ( $n = 50$  plus 3 long-distance couples noted below). Of the remainder, 14 couples lived within commuting distance of Las Cruces (Alamogordo, NM and El Paso, TX), 5 were from Albuquerque, Llano, and Roswell, NM, 13 were from

Dallas, TX, 3 from Tucson, AZ, and one each lived in California, Georgia, Montana, and Minnesota. In addition, three of the dyads included one partner who lived in Las Cruces and another who was out of town for some part or all of the study (these were included in the 58% residing in Las Cruces). For example, one man was called away for military maneuvers in the first week of his participation. Another dropped out of school mid-semester and took a job in California, while his girlfriend stayed behind to attend classes in Las Cruces. As long as partners had some form of contact with each other every three days, they were asked to continue participating in the study.

As noted previously, only 34% ( $n = 31$ ) of participants were students. Occupations of the others included university professors, elementary and secondary teachers, administrators, engineers, doctors, nurses, ranchers, farmers, military personnel, retirees, salespeople, and one school bus driver.

An item classifying dyads according to the nature of their romantic relationship was included on the final day of the survey. Individuals were asked to choose the one category that best describes their relationship. Originally used by Andersen and Guerrero (1990), the six categories for relationship level include: (1) we have never officially dated; (2) we have been on one date; (3) we date each other casually; (4) we date each other exclusively; (5) we are seriously considering marriage; and (6) we are married. None of the subjects in this study reported less than casual dating (category 3). A little over half of the couples were married ( $n = 50$ ; 54% of the sample). Of the remaining categories, a little over one quarter of the sample (27%) reported they were considering marriage ( $n = 25$ ), roughly 16% said they dated exclusively ( $n = 13$ ), and only one couple agreed they dated casually. The remaining three dyads did not agree on their relationship level.

The relationship level item was included at the end of the survey in order to avoid a response bias. Had subjects seen this item at the outset, it may have influenced them to

respond to specific intimacy items in such a way as to reinforce their notion of what a "seriously dating" or "married" relationship, for example, looks like. The responses to this self-classification make sense because only those couples who are more committed to and comfortable with their relationships would be willing to examine their relationships everyday for six weeks. It is likely that a majority of those who dropped out before completing the study fell in one of the first three categories of relationship level. However, this conjecture is indeterminant because those who withdrew never completed this item.

#### Procedure

Subjects were informed that the study concerned romantic relationships and required them to keep daily records for six weeks. Because intimacy is conceptualized to be a dyadic construct, subjects were informed that their relational partners needed to complete the same records. The time period was chosen because several researchers argue that conversations serve as "frames" of a relationship (Baxter, 1992; Duck & Pond, 1989). But often what is not communicated can be just as important as what is communicated when one considers a relationship. Researchers asking subjects to complete surveys following each conversation or interaction with a partner are overlooking the fact that the lack of communication contributes to relationship meaning. Moreover, there is evidence suggesting that memory tends to distort or diminish the mundane daily communication that is necessary for relationships to exist (e.g., Duck, 1990; Duck et al., 1991). By having subjects respond to items once every 24 hours, the activity of responding to measurement items does not interfere with normal interactive activities, meaning derived from both the presence and absence of communication is accessed, and the biasing effects of memory should be offset.

Once subjects agreed to participate, they contacted the researcher to arrange a schedule for obtaining and returning forms. Subjects made this trade every three to seven days. Those who were out of town were sent all six weeks of the forms along with six self-addressed stamped brown envelopes to be mailed to the researcher weekly. Three dyads included one partner who was out of town for part or all of the study. In these cases, complete sets were mailed to the partner out of town, while the remaining partner continued to come into the office to exchange her own forms. To ensure individual privacy, streamline the trade-off procedure, and reduce costs of mailing, participants were provided with a standard white envelope in which they were told to place and seal their own forms, preventing their partners from looking at their responses. Then, the two partners in a dyad placed both sealed white envelopes into a larger brown envelope. This allowed a single person per dyad (and in many cases, a single person per multiple dyads) to make the exchange with the researcher.

Partners were asked to begin their surveys on the same day so that they would respond to the items with similar events and interactions in mind. But they were told that they need not complete the forms at the exact same time, and that they were not to discuss or share their responses with one another. The starting dates ranged from January 28 to March 4, 1993.

Following data collection, all subjects in the Las Cruces, Alamogordo, and El Paso area were contacted and asked to attend a debriefing meeting. Three alternative times and dates were offered. Only ten dyads were represented at these meetings. Those attending were first asked to write out what they thought "intimacy" was, and then to graph the development of intimacy in their relationship from the day they met to the present. Following this, they were informed of the hypotheses, research questions, and preliminary

results for this study and thanked for their participation. The remaining participants were sent a brief written summary of the hypotheses, research questions, and results.

Because of the large number of variables proposed to contribute to the meaning of intimacy and because each variable is determined by responses to multiple items, it would be unreasonable to expect subjects to respond to such a large battery of items on a daily basis. Further, with repeated exposure to the same items each day, subjects may quickly develop a response bias. To combat these potential problems, subjects were asked to respond to one-third of the items on each day (21 or 22 items per day). Each third was rotated every day. This yielded two points of assessment for each variable per week. On the seventh day, or once per week, subjects completed a global measure of intimacy, yielding six points of assessment. Responses were averaged across individuals in a dyad and across items in a scale to provide a single dyadic score for each variable.

#### Dependent Measures

A global perception of intimacy is conceptually the same as cognitive, affective, and behavioral interdependence between two people. Because no direct measures of interdependence were located, seven items tapping each of the three dimensions were constructed to measure global intimacy (see Appendix A for items measuring all variables). Alpha reliabilities for this and subsequent variables are reported in Table 1. In addition to the global intimacy measure, several open-ended questions were asked once a week to examine the qualitative issue of events and conversational topics that might represent turning points in the dialectic swings. For example, participants were asked to recount all the topics of conversation they had with their partner and where these conversations occurred in the past week. They were also asked to indicate the channels used (i.e., face-to-face, telephone, mail) to communicate with their partner. Finally, participants reported on the topics of conflict they had, if any, with their partner and how these were handled.

The frequency, duration, intensity, and diversity of interactions was broken down and measured as four separate variables because they do not necessarily covary. Intensity was measured by five items from the involvement dimension of Burgoon and Hale's (1987) Relational Communication Scale. Where necessary, the items were modified to reflect a single day's communication. Because one's own intensity of interaction is not necessarily the same as one's partner's intensity, the items were repeated twice, once to measure self intensity and a second time to measure perceptions of partner intensity.

Diversity of interaction was measured with five items modified from Fitzpatrick's (1988) dimension of interdependence/autonomy. Fitzpatrick's scale taps only a behavioral level of interdependence, and therefore could not be used to determine the global intimacy variable since it incorporates affective and cognitive dimensions as well. Her items, however, do reflect a number of different activities that relationship partners may engage in together.

Both frequency and duration of interaction were assessed with single items because of the number of ways in which participants can be asked how many times they interacted with their partner and for how long (in hours and minutes) is limited. Further, these items are not scaled on a one to seven continuum, but instead represent real time. There was no upper limit set on frequency, and 24 hours was the limit set on duration (since subjects were basing their responses on the past 24 hours of interaction). On the surface, the two measures should have been the most objective, and hence reliable, if that could be determined. However, during the course of the study, it became clear that many subjects were interpreting these two questions very differently. One participant asked the researcher if on a Saturday he spent the day with his partner, but she left the house two times, did that count as one or three interactions. Others indicated interacting with their partners for more than 24 hours in a day, which is impossible. And still others indicated

interacting with their partners for 100 or more times in a day, suggesting they were counting something like sentences or speaking turns instead of entire interactions as one unit. Given the wide range of numbers subjects reported, the questions they asked of the researcher, and the inability to calculate reliability, results based on these two variables should be accepted with caution.

One of the primary means of gaining knowledge of personal aspects of one's partner is through self disclosure. Dindia's (1988) scale of perceived disclosure assesses this variable. Because this study focusses on actual communication behavior rather than intentions to communicate (or conceal), five items assessing each individual's perception of how much each discloses (modified from Dindia, 1988) were used. Because one's perception of self disclosure is not necessarily directly related to one's perception of a partner's disclosure, these items are repeated twice. Once they are worded to determine the subject's perception of how much the partner disclosed (knowledge of personal aspects of one's partner) and then how much the subject feels he or she revealed to the partner (self disclosure).

A six-item mutuality scale developed recently has proven to be both reliable and valid in a number of contexts (e.g., on conflict, see Canary & Spitzberg, 1989, and Canary, Weger, & Stafford, 1991; on maintenance, see Stafford & Canary, 1991). These items, modified to reflect a discrete and immediate level (i.e., today) of mutuality, were used to assess partners' agreement on the rules of the relationships. In its original form, the mutuality scale includes an item stating "I feel my partner ignores my feelings and opinions." Mutuality is a two-sided construct, and as such an additional item was added to reflect the extent to which the respondent ignored the partner's feelings and opinions. Further, the phrase "I feel" was dropped in an effort to have participants think about

actual events and behaviors rather than their own feelings. In all, seven items were used for this variable.

Trust was measured with four items modified from the receptivity/trust dimension of Burgoon and Hale's (1987) Relational Communication Scale. Two more items were added to reflect a lack of trust. All items were reworded to implicate actual behaviors of trust/distrust on a particular day. As with intensity of interaction and knowledge of the partner, it is important not to confound a respondent's trust in his or her partner with the perception of the partner's trust in the respondent. Thus, these items were repeated twice and worded appropriately to reflect the respondent's communication of trust in the partner and the partner's expression of trust in the respondent.

Items measuring caring were derived from Rubin's (1970) loving scale. Rubin's loving scale was chosen to reflect caring because both constructs stem from an overarching concept of positive affect and the perceptions associated with behaviors communicating positive affect. Again, one's own expression of care does not always indicate an equivalent expression of care from the partner. Therefore, the six items assessing caring were repeated twice. First, they were phrased to reflect the partner's expression of affection toward the respondent and second, to reflect the respondent's expression of affection toward the partner.

Commitment is conceptualized by Lund (1985) in terms of social exchange principles, that is, the attractiveness of the current relationship relative to alternatives. Lund (1985) provides a 9-item scale that has been demonstrated to be a reliable and valid indicator of the level of commitment one has for a particular relationship. Six items were chosen from this scale to represent the extent to which partners are committed to each other and their relationship. Three items from the original scale were not included here for several reasons. First, two items asked for the respondent's assessment of the partner's

commitment; commitment in this study refers only to the respondent's commitment. Second, one item appeared redundant to another. Third, methodologically, it was desirable to use similar numbers of items to assess each variable in order to avoid overrepresenting any single variable. The wording of each item was modified to reflect the extent to which a participant was committed to a partner "based on today's interactions."

Responses to all items (except for the open-ended questions and frequency and duration items) were recorded on 7-point Likert-type scales ranging from strongly disagree to strongly agree. As noted previously, there were two assessments of these variables per week for six weeks. Subjects responded to items measuring all but the global and qualitative measures once every three days. On the seventh day, participants responded to the global intimacy items and the open-ended questions about the types and contexts of their interactions. Scales and items were randomized to minimize response sets. Participants reported that responses on a particular day took only three to ten minutes to complete. The open-ended questions took the most time to answer.

Intraclass correlations were computed not only for the scales, but also for time and partner in order to check for stability across items within a scale, across the twelve (or six for global intimacy) time periods, and across partners within a dyad. Results are reported in Table 1. Overall, reliabilities for items within scales was high. The lowest reliability occurred on the affection variables and upon closer examination, no single item was responsible. Across time, correspondence was also high, presaging an inability to detect many changes in the measures over time. Intraclass correlations for the partner were somewhat lower, reaffirming the need to gather information from both participants in a relationship because each perceives various aspects of the relationship differently.

Table 1

Reliabilities for Global Intimacy and the Variables Hypothesized as Contributing to Global Intimacy

<u>Variable</u>	<u>N</u>	<u>Item</u>	<u>Time</u>	<u>Partner</u>
Global intimacy	74	.89	.96	.73
Affection (Respondent's toward partner)	68	.75	.93	.58
Affection (Partner's toward respondent)	73	.78	.92	.52
Commitment	64	.84	.97	.81
Diversity of interaction	71	.88	.89	.80
Duration of interaction	59	--	.94	.92
Frequency of interaction	54	--	.95	.13
Intensity of interaction (Respondent's)	70	.95	.91	.60
Intensity of interaction (Partner's)	71	.95	.90	.55
Knowledge of the partner (Respondent's)	70	.95	.91	.53
Mutuality	71	.95	.89	.68
Self disclosure	73	.93	.89	.67
Trust in partner (Respondent's)	74	.90	.92	.50
Trust in respondent (Partner's)	72	.90	.92	.51

Note: Ns vary across variables due to missing data for some time periods.

## CHAPTER 3

### RESULTS

#### Intimacy Components

##### Preliminary Analysis and Construction of Composites

An initial examination of the components proposed to contribute to intimacy was warranted due to the fact that several of the features might be related. Because of multicollinearity among the variables which could mask or otherwise distort results of the analyses, and in order to achieve parsimony, Pearson correlations were conducted among the variables at the dyadic level and within female-only and male-only responses so as to create fewer clusters of interrelated dimensions. The criteria for grouping multiple variables into a single composite measure were (1) a correlation with another variable of .80 or better, and (2) the occurrence of the same correlated variables for both male and female responses. Using these criteria, three composite measures were computed by averaging the constituent variables: mutuality/trust/intensity of involvement, composite care (or affection), and composite self disclosure. The variables included in each composite and their correlations are presented in Table 2. Mutuality/trust/intensity of involvement is made up of mutuality, both partners' expression of trust in the other, and both partners' intensity of interaction. Composite care includes both the respondent's expression of affection toward the partner and the partner's expression of affection toward the respondent. Composite self disclosure includes the respondent's knowledge of the partner and the respondent's level of self disclosure. All subsequent analyses were conducted using the three composite variables along with the remaining four variables not included in the composites (commitment, and frequency, diversity, and duration of interaction).

Table 2

Correlations Among Variables Comprising the Three Composite Measures Hypothesized as Contributing to Global Intimacy

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<b>Mutuality/Trust/Intensity of Involvement (MTI)</b>					
	<u>GSI</u>	<u>GPI</u>	<u>GMUT</u>	<u>GST</u>	<u>GPT</u>
Respondent's intensity of interaction (GSI)	1.00	.8836	.8431	.8029	.8104
Partner's intensity of interaction (GPI)	.8836	1.00	.8686	.8129	.9040
Mutuality (GMUT)	.8431	.8686	1.00	.8558	.8415
Respondent's expression of trust (GST)	.8029	.8129	.8558	1.00	.8789
Partner's expression of trust (GPT)	.8104	.9040	.8415	.8789	1.00
<b>Composite Care (CC)</b>					
	<u>GSC</u>	<u>GPC</u>			
Respondent's expression of affection (GSC)	1.00	.8879			
Partner's expression of affection (GPC)	.8879	1.00			
<b>Composite Self Disclosure (CSD)</b>					
	<u>GKP</u>	<u>GSD</u>			
Respondent's knowledge of partner (GKP)	1.00	.8642			
Self disclosure (GSD)	.8642	1.00			

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Note: N = 92

Hypothesis 1

Hypothesis 1 predicted that mutuality/trust/intensity of involvement (MTI), composite care (CC), composite self disclosure (CSD), commitment (CMT), and diversity (DIV), frequency (FI), and duration (DUR) of interaction would contribute significantly to global intimacy (GI) in personal relationships. To test this hypothesis, correlations were

calculated (see Table 3) between each composite measure and the four variables not included in composites with global intimacy.

Table 3

Correlations of Three Composite Variables and Remaining Four Variables with Global Intimacy

	<u>MTI</u>	<u>CC</u>	<u>CSD</u>	<u>CMT</u>	<u>DIV</u>	<u>FI</u>	<u>DUR</u>	<u>GI</u>
Mutuality/Trust/Intensity of Involvement (MTI)	1.00	.6550 <sup>b</sup>	.3949 <sup>b</sup>	.5481 <sup>b</sup>	.2878 <sup>b</sup>	.0969	.1205	.6568 <sup>b</sup>
Composite Care (CC)	.6550 <sup>b</sup>	1.00	.6032 <sup>b</sup>	.4224 <sup>b</sup>	.4986 <sup>b</sup>	.0728	.2835 <sup>b</sup>	.6961 <sup>b</sup>
Composite Self Disclosure (CSD)	.3949 <sup>b</sup>	.6032 <sup>b</sup>	1.00	.1338	.5919 <sup>b</sup>	.0079	.2587 <sup>a</sup>	.4380 <sup>b</sup>
Commitment (CMT)	.5481 <sup>b</sup>	.4224 <sup>b</sup>	.1338	1.00	.2834 <sup>b</sup>	.1582	.0618	.6685 <sup>b</sup>
Diversity of Interaction (DIV)	.2878 <sup>b</sup>	.4986 <sup>b</sup>	.5919 <sup>b</sup>	.2834 <sup>b</sup>	1.00	.0418	.3643 <sup>b</sup>	.4181 <sup>b</sup>
Frequency of Interaction (FI)	.0969	.0728	.0079	.1582	.0418	1.00	.4089 <sup>b</sup>	.0725
Duration of Interaction (DUR)	.1205	.2835 <sup>b</sup>	.2587 <sup>b</sup>	.0618	.3643 <sup>b</sup>	.4089 <sup>b</sup>	1.00	.2376 <sup>a</sup>
Global Intimacy (GI)	.6568 <sup>b</sup>	.6961 <sup>b</sup>	.4380 <sup>b</sup>	.6685 <sup>b</sup>	.4181 <sup>b</sup>	.0725	.2376 <sup>a</sup>	1.00

Note: <sup>a</sup> is significant at  $p < .05$ ; <sup>b</sup> is significant at  $p < .01$ ;  $N = 92$

The results indicate that all variables except for frequency of interaction are significantly related to global intimacy. As noted previously, frequency of interaction is a single-item measure which was problematic. The range of responses to this item implied that subjects counted everything from single speaking turns to entire days as an interaction. If reliability could be calculated for this variable, it is likely that it would be highly unreliable. Thus, the results of this correlation analysis largely support Hypothesis 1. Composite caring, commitment, and mutuality/trust/intensity of involvement are the three variables most closely associated with global intimacy. Composite self disclosure and

diversity of interaction are also significantly associated with global intimacy, as is duration of interaction, though the latter is weakly related (possibly due to its single-item structure, and hence, lack of reliability).

Because it is not clear how much the correlational analysis capitalizes on multicollinearity, a more stringent test of Hypothesis 1 was computed using regression equations on the eight variables with global intimacy (GI) serving as the dependent factor. The first equation consisted of the dyadic level averaged variables. The second and third equations contained male-only and female-only responses. In all three analyses, variables were averaged across time periods. Pedhazur (1982) suggests that when there is no clear theoretical rationale for examining the effects of some variables while controlling for the effects of others, incremental partitioning of variance is inappropriate. Further, in models where explanation rather than prediction is the focus (i.e., one is concerned with the relative importance of independent variables, not necessarily the "best" predictor), incremental variance partitioning is an invalid approach (Pedhazur, 1982, pp. 177-188). For these reasons a simultaneous rather than hierarchical entry procedure was used for the independent variables.

At the dyadic level, only two variables, composite care (CC) and commitment (CMT), accounted for a significant amount of the variance in global intimacy (GI),  $R^2 = .68$ ,  $F(7,84) = 26.07$ ,  $p < .0001$ ;  $B(CMT) = .44$ ,  $t = 5.60$ ,  $p < .0001$ ;  $B(CC) = .33$ ,  $t = 3.34$ ,  $p < .0013$ . The remaining independent variables were not significant contributors to GI and were deleted from the equation. A reduced model including only the two significant contributors was significant,  $R^2 = .66$ ,  $F(2,89) = 84.59$ ,  $p < .0001$ ;  $B(CMT) = .46$ ,  $t = 6.64$ ,  $p < .0001$ ;  $B(CC) = .50$ ,  $t = 7.33$ ,  $p < .0001$ . The best model for explaining dyadic GI is  $Y'_{GI} = .03 + .65(CC) + .42(CMT)$ . Because only two out of the seven variables proposed to

contribute to GI were significant in this more stringent test, Hypothesis 1 was only partially supported.

Clearly, all variables except for frequency of interaction contribute to assessments of global intimacy, but they are highly related. The correlation analysis indicates that all but frequency of interaction are significantly related to intimacy. The regression analysis suggests that only two variables, composite care and commitment, significantly contribute to intimacy. Multicollinearity among the variables hypothesized as contributing to global intimacy is the likely culprit for additional variables not entering the regression equation.

The potentially distorting effects of correlated variables (even though composites were used) was checked by one final analysis. Draper and Smith (1981) suggest examining the scatterplot of the final model's residuals against the actual values of the variable(s) not entering the model. Similar to the analysis of residuals (examining a scatterplot of residuals plotted against predicted values), there should not be a detectable pattern of points and the points should fall roughly into a rectangle with half above and half below the midpoint of residuals. If a pattern of points is present, there may be one or more of three problems present: (1) variance in the independent variable that is not constant, implicating the need for a transformation; (2) an error in the analysis (or a final equation that systematically departs from the predicted model; this may imply that a  $\beta$  was wrongly omitted); and (3) an inadequate final model indicating a need for additional terms or the need for a transformation of the data before its inclusion in the model (Draper & Smith, 1981). For irregular scatterplots, Draper and Smith (1981) recommend including that variable in the final model, possibly altering it with a transformation. An examination of the scatterplots of residuals against each variable not included in the final model indicates that none of the three problems noted above were encountered. That is, there was an overall impression of a rectangle of points evenly distributed above and below the residual

midpoint. The same holds true for the scatterplot of residuals plotted against predicted dependent values, indicating the assumption of homoscedasticity was not violated.

Additional regression analyses were conducted on male-only and female-only data. For females, the best predictors of GI were the same as those at the dyadic level, but the weights of the variables and the intercept were different. The best model for explaining female global intimacy (FGI) is  $Y'_{FGI} = .83 + .69(FCC) + .26(FCMT)$ ,  $F(2,89) = 48.94$ ,  $p < .0001$ ,  $R^2 = .52$ . For males, composite care was not a significant factor, but the combination of commitment and composite self disclosure were significant in explaining the variance in male global intimacy (MGI). The best model for explaining male GI is  $Y'_{MGI} = .24 + .39(MCSD) + .66(MCMT)$ ,  $F(2,89) = 69.48$ ,  $p < .0001$ ,  $R^2 = .61$ . The composite of mutuality/trust/intensity of involvement and the diversity, frequency, and duration of interaction were not significant predictors in any of the models. An examination of standardized residual scatterplots revealed that the assumption of homoscedasticity was not violated in any case.

#### Classification of Dyads

The next research question and two hypotheses involve subgroups of the sample. In order to classify dyads each person was asked on the final day of the study to check one of three categories (increased intimacy, no change in intimacy, decreased intimacy) that best described his or her relationship over the past six weeks. This self-classification was labeled the criterion. Partners in many dyads did not agree on the classification. For example, a male may have reported no change while his partner reported an increase in intimacy. To include in the next three analyses only those dyads that agreed on the criterion would reduce the sample size dramatically (e.g., only 21 dyads agreed their intimacy increased). It is argued that those couples in which at least one member reports an increase while the other reports no change perceptually experience more increase in

intimacy than those couples in which both members report no change in intimacy. Similarly, those couples in which at least one member reports a decrease in intimacy while the partner reports no change perceptually experience more decrease in intimacy than those in which both partners agree there is no change. Although it is problematic to label a couple as increasing or decreasing if one member reports experiencing no change, to retain an adequate sample size, those dyads in which at least one member experienced an increase were classified as increasing in intimacy. Likewise, those dyads in which at least one member experienced decreased intimacy were classified as decreasing in intimacy. Only couples in which both partners agreed there was no change in their intimacy level were classified as not experiencing change in their intimacy level. This system was employed for all dyadic level analyses. Where analyses were conducted on male-only and female-only responses, the individual self-classification was used instead to categorize subjects. This classification rule implies that the concern for an adequate sample size overrides the concern for comparability between dyadic-level and individual-level calculations. Given the argument for a conceptualization of intimacy as dyadic, the focus will be on the dyadic results. It is acknowledged that the results of tests employing male-only and female-only responses are not comparable to those employing dyadic-level responses.

#### Research Question 1

Research Question 1 queried if the salience of the components of intimacy would differ for couples reporting increased intimacy as compared to those who report no change in their intimacy over the six week period. To answer this question, dyads were separated according to the partners' final responses to the criterion measure. Because the research question does not address decreasing intimacy and only four dyads fell into that category, they were eliminated from the analyses. As a manipulation check that those reporting an

increase truly differed in their intimacy ratings from those reporting no change, an analysis of variance was computed. Respondents' ratings of global intimacy at the final time period were subtracted from their first ratings of the variable to obtain difference scores which were then used as the dependent measure in the ANOVA. The criterion measure served as the independent variable. Conceptually, those reporting no change in intimacy on the criterion measure should have much smaller difference scores than those reporting an increase. The difference score for those reporting an increase in intimacy should be positive (as opposed to negative) if the final rating is higher than the initial rating. Results of the ANOVA failed to reach significance,  $F(1,83) = 1.37, p > .05$ , indicating that the two groups' difference scores on intimacy were not distinct. Further, the means of the difference scores suggest there was more change between the first and last time periods for the group reporting no change ( $M = .13$ ) than for the group reporting increased intimacy ( $M = .01$ ). Because this research question and the next two hypotheses specifically address subjects' perceptions of increasing intimacy, the criterion measure was used to group subjects into increasing and unchanging intimacy categories. However, the failure to detect a significant difference between the two groups on the dependent measure of global intimacy difference raises a red flag about the measurement of global intimacy, an issue to be addressed in the discussion.

To answer Research Question 1, Pearson product-moment correlations with global intimacy (GI) were computed within couple type (increased intimacy, no change in intimacy) for the three composite variables and the additional four variables. The correlations were then transformed to Fisher  $z$  scores and  $z$ -tests were calculated for each of the variables between the two groups. Table 4 presents the results of these tests and indicates that the two groups are not significantly different from one another in their

Table 4

r to z Transformations and z-tests Examining Differences Between Couples Reporting Increased Intimacy Over Six Weeks and Those Reporting No Change

<u>Variable</u>	<u>Correlation with GI</u>		<u>z' Transformation</u>		<u>z-test</u>	<u>p</u>
	<u>Incr.</u>	<u>NoChg.</u>	<u>Incr.</u>	<u>NoChg.</u>		
MTI	.6986	.7364	.863	.939	-.337	> .05
CC	.6570	.6953	.784	.858	-.328	> .05
CSD	.3478	.5274	.362	.586	-.993	> .05
CMT	.7127	.4647	.892	.503	1.725	> .05
DIV	.3059	.4009	.316	.434	-.523	> .05
FI	.0981	-.0014	.098	-.001	.439	> .05
DUR	.2345	.1058	.239	.106	.590	> .05

Note.  $n_{\text{increase}} = 45$ ,  $n_{\text{no change}} = 40$ ,  $MS_{\text{error}} = .2255$

ratings of variables contributing to intimacy. The conclusion is that there are not differences between those reporting an increase in intimacy and those reporting no change in the factors they consider important to global intimacy. This corresponds with the manipulation check results indicating that couples reporting perceived increasing and unchanging intimacy did not differ on their actual measures of global intimacy.

This research question was probed further with regression analyses. For couples reporting no change in their intimacy level, when all variables were entered simultaneously into the equation, composite caring (CC) and composite mutuality/trust/intensity of involvement (MTI) were the only significant contributors to global intimacy (GI) at the dyadic level (see Table 5).

Table 5

Regression Results for Variables Contributing to Increasing and Unchanging Intimacy

<u>Dependent Variable</u>	<u>Independent Variable</u>	<u>R<sup>2</sup></u>	<u>F</u>	<u>df</u>	<u>B</u>	<u>t</u>	<u>p</u>
<b>Dyadic Intimacy</b>							
	No Change ( <u>n</u> = 40)	.62	30.38	2,37			< .001
	Composite Care				.37	2.79	< .01
	Mutuality/Trust/ Involvement				.49	3.68	< .001
	Increasing ( <u>n</u> = 45)	.64	36.56	2,42			< .001
	Composite Care				.41	3.83	< .001
	Commitment				.52	4.84	< .001
<b>Males' Intimacy</b>							
	No Change ( <u>n</u> = 56) <sup>a</sup>	.63	29.13	3,52			< .001
	Composite Care				.28	2.67	= .01
	Mutuality/Trust/ Involvement				.31	2.64	= .01
	Commitment				.39	3.85	< .001
	Increasing ( <u>n</u> = 32) <sup>a</sup>	.64	25.43	2,29			< .001
	Commitment				.73	6.55	< .001
	Composite Self Disclosure				.29	2.56	< .05
<b>Females' Intimacy</b>							
	No Change ( <u>n</u> = 54) <sup>a</sup>	.55	64.11	1,52			< .001
	Composite Care				.74	8.01	< .001
	Increasing ( <u>n</u> = 34) <sup>a</sup>	.35	17.29	1,32			< .001
	Mutuality/Trust/ Involvement				.59	4.16	< .001

Note: <sup>a</sup> The number of subjects within Male and Female only subgroups differ from the number of subjects in the Dyadic-level subgroups because of the method used to calculate the criterion measure.

The best model explaining dyadic GI for couples reporting no change in intimacy is  $Y'_{GI} = -.06 + .50(CC) + .61(MTI)$ . For couples reporting an increase in intimacy over the six weeks, composite caring (CC) was again a significant contributor, but composite mutuality/trust/intensity of involvement was replaced with commitment (CMT). The best

model explaining dyadic GI for couples reporting an increase in intimacy over the six weeks is  $Y'_{GI} = .71 + .45(CC) + .47(CMT)$ . Although the  $z$ -tests reported above indicate nonsignificant differences between the two groups, these regression models suggest that differences do exist albeit slight.

When males and females are examined separately, different variables become more or less important to explaining the variance in global intimacy. Though this is not part of the hypothesis, the results are interesting and warrant mention. For males who report no change in their intimacy levels over the six weeks, the best model explaining their intimacy includes the composite of mutuality/trust/involvement (MMTI), composite caring (MCC), and commitment (MCMT),  $Y'MGI_{no\ change} = -.45 + .38(MMTI) + .35(MCC) + .39(MCMT)$ . Compare this to the best model explaining intimacy of females reporting no change. Only composite caring is significantly important,  $Y'FGI_{no\ change} = 1.11 + .95(FCC)$ . These two models indicate that for males, roughly two-thirds of the variance in intimacy is accounted for by three variables, two of which (composite caring and mutuality/trust/involvement) also explain the variance in dyadic intimacy. For females, only one of these factors (composite caring) systematically accounts for over half of the variance in their average intimacy over the six weeks.

For males who reported an increase in intimacy over the six weeks, commitment (MCMT) and composite self disclosure (MCSD) were important and composite caring (a factor important to dyadic intimacy) was not,  $Y'MGI_{increase} = 1.03 + .59(MCMT) + .30(MCSD)$ . The best model explaining intimacy of females reporting an increase over six weeks includes only composite mutuality/trust/involvement,  $Y'FGI_{increase} = 2.17 + .67(FMTI)$ . The low amount of variance accounted for among the females suggests that females whose relationships are in the process of change (increasing intimacy) vary widely on the factors they consider important to intimacy. Of all the factors potentially having an

impact, only one -- mutuality/trust/involvement -- systematically accounted for the variance in their intimacy ratings, and this one explained only about one-third of the variance. Males perceiving increased intimacy, on the other hand, were more consistent in the factors they reported as important to their intimacy -- commitment and mutual self disclosure.

### Intimacy Development Over Time

#### Hypothesis 2

The second hypothesis predicted that there will be a linear trend of increasing intimacy at a global level for couples who self-reported increased intimacy at the end of the study. To test this hypothesis, a single degree of freedom focussed contrast analysis (Rosenthal & Rosnow, 1985) was performed testing for an increasing linear trend over time. This trend failed to reach significance at the dyadic level,  $F(1,210) = .19, p > .05$ , and for males and females analyzed separately,  $F_{male}(1,210) = 1.88, p > .05$ ;  $F_{female}(1,210) = .26, p > .05$ . Examination of the means indicates very little change over the six time periods in ratings of global intimacy (see Table 6).

As an additional analysis, a repeated measures multivariate analysis of variance was calculated on six ratings of global intimacy (GI) for couples in which at least one member reported an increase in intimacy at the conclusion of the study. The dyad represented the unit of analysis and time (periods 1 to 6) and partner (male, female) were the within-dyads factors. A polynomial contrast on time was included to test the linear trend (see Table 7). All nonlinear contrasts were combined to create a test for deviations from linearity which included the remaining four degrees of freedom for the time factor.

The results of both tests failed to support Hypothesis 2. There were no significant effects for global intimacy at the dyadic level. Because the assumption of sphericity was

violated for the interaction effect and the main effect of time, the Greenhouse-Geisser correction formula was used on the degrees of freedom. (This correction, suggested by Table 6

Means of Global Intimacy Over Six Time Periods for Couples Reporting Increased Intimacy

<u>Time</u>	<u>Dyadic</u>	<u>Male</u>	<u>Female</u>
1	5.89	5.83	5.95
2	5.82	5.61	6.04
3	5.87	5.68	6.07
4	5.92	5.85	5.99
5	5.83	5.77	5.89
6	5.93	5.87	5.99

Note: N = 43

Keppel, 1982, was used wherever the violation was made.) The partner by time interaction effect and the time main effect were not significant. There was, however, a trend for the partner main effect such that females consistently rated intimacy higher than males at each time period. The grand mean of global intimacy was 5.99 for females and 5.77 for males. The conclusion is that this test failed to demonstrate that global intimacy increases linearly over time for couples reporting an increase in intimacy at the end of the study, and that females generally tend to rate intimacy higher than males.

Hypothesis 3 and Research Question 2

For couples reporting increased intimacy over the six week period, Hypothesis 3 predicted nonlinear patterns for each of the variables proposed to contribute to intimacy

Table 7

Summary of MANOVA Results Testing for a Linear Trend Across Time for Global Intimacy

	<u>SS</u>	<u>df</u>	<u>Epsilon-corrected</u> <u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Partner Effect	6.03	1		6.03	3.97	.053
Error (partner)	63.74	42		1.52		
Time Effect	.83	5	(3.92)	.17	.89	.468
Linear Contrast	.09	1		.09	.47	>.050
Deviations from Linearity	2.97	4		.74	1.00	>.050
Error (time)	39.26	210	(164.74)	.19		
Time X Partner Interaction	2.35	5	(3.98)	.47	1.97	.101
Error (time by partner)	60.01	210	(167.02)	.24		

Note. Degrees of freedom in parentheses are corrected with the Greenhouse-Geisser Epsilon;  $N_{dyads} = 43$

and Research Question 2 asked what those patterns were. To test for nonlinear patterns, separate repeated measures multivariate analyses of variance were conducted for mutuality/trust/intensity of involvement (MTI), composite care (CC), composite self disclosure (CSD), commitment (CMT), and frequency (FI), diversity (DIV), and duration (DUR) of interaction. Similar to the test of the second hypothesis, the dyad was the unit of analysis and time (periods 1 to 12) and partner (male, female) were the within-dyads factors. In addition to testing for individual polynomial effects across time, all nonlinear contrasts were aggregated (10 degrees of freedom) to see if there was an overall deviation from linearity.

Hypothesis 3 was only partially supported because there was only one significant deviation from linearity across time for duration of interaction and not all of the variables were affected by time in any form. To preview the significant results, there were main effects of time on composite care, and duration and diversity of interaction. These main

effect results are presented first, followed by the results of two significant time by partner interactions for composite self disclosure and commitment. Though not considered in this hypothesis, there were two partner main effects on commitment and composite mutuality/trust/intensity of involvement which will be discussed briefly. These results are summarized in Table 8.

Two polynomial contrasts of time were significant for composite care:  $F_{T3}(1,42) = 6.00$ ,  $p = .019$ ,  $\eta^2 = .12$ ;  $F_{T7}(1,42) = 4.26$ ,  $p = .045$ ,  $\eta^2 = .09$ . Examination of the means (see Table 9) and graph (see Figure 1) suggests that over time there is both a linearly increasing trend (the T3 contrast) and a quintic trend that has at least three increases alternating with three decreases (the T7 contrast) in ratings of self and partner expression of care over the twelve time periods. Since participants provided two ratings per week on this measure, the change in the direction of care expressions appears to occur every week to week and a half. That is, the weights for the significant T7 contrast indicate that at the end of the first week (time 2), care ratings increased. Then, ratings decreased until the middle of the third week (time 5), at which time ratings began climbing again. At the end of the fourth week (time 8), ratings took a downturn until the middle of the sixth week (time 11), when they began increasing again. The graph of means of the actual ratings suggests that neither partner strictly adhered to this pattern, but mean ratings of the two partners combined roughly corresponds to the pattern. The linear contrast indicates that, over the course of the study, participants tended to increase their own expression of care as well as perceive an increase in their partners' expression of care.

For frequency, diversity, and duration of interaction there were main effects of time on diversity and duration only. For duration of interaction, there was a significant effect due to time, and the aggregated deviation from linearity contrast was significant (see Table

Table 8

Summary of MANOVA Results Testing for Deviations from Linearity for Variables Hypothesized as Contributing to Global Intimacy

	<u>SS</u>	<u>df</u>	<u>Epsilon-corrected</u> <u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<b>COMPOSITE CARE (n = 43)</b>						
Partner Effect	2.59	1		2.59	1.89	.177
Error (partner)	57.53	42		1.37		
Time Effect	8.58	11	(7.33)	.78	2.23	.029
Linear Contrast	4.24	1		4.24	12.11	<.001
Deviations from Linearity	4.34	10		.43	1.23	>.005
Error (time)	161.43	462	(307.91)	.35		
Time X Partner Interaction	3.18	11		.29	1.61	.091
Error (time by partner)	82.80	462		.18		
<b>DURATION OF INTERACTION (n = 29)</b>						
Partner Effect	7,948.14	1		7,948.14	.26	.612
Error (partner)	846,327.20	28		30,225.97		
Time Effect	1,071,264.41	11	(5.77)	97,387.67	2.42	.030
Linear Contrast	81,906.45	1		81,906.45	2.04	>.050
Deviations from Linearity	989,357.96	10		98,935.80	2.46	<.010
Error (time)	12,378,950.43	308	(161.54)	40,191.40		
Time X Partner Interaction	80,843.66	11	(6.81)	7,349.42	.82	.570
Error (time by partner)	2,764,257.01	308	(190.78)	8,974.86		
<b>DIVERSITY OF INTERACTION (n = 37)</b>						
Partner Effect	.40	1		.40	.10	.749
Error (partner)	139.95	36		3.89		
Time Effect	33.92	11		3.08	1.43	.155
Linear Contrast	2.55	1		2.55	1.19	>.050
Deviations from Linearity	31.37	10		3.14	1.46	>.050
Error (time)	851.97	396		2.15		
Time X Partner Interaction	5.37	11		.49	.71	.732
Error (time by partner)	273.12	396		.69		

(table continues)

Table 8

Summary of MANOVA Results Testing for Deviations from Linearity for Variables  
Hypothesized as Contributing to Global Intimacy

	<u>SS</u>	<u>df</u>	<u>Epsilon-corrected</u> <u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<u>COMPOSITE SELF DISCLOSURE (n = 45)</u>						
Partner Effect	1.54	1		1.54	.40	.530
Error (partner)	168.46	44		3.83		
Time Effect	11.13	11	(7.27)	1.01	1.22	.291
Linear Contrast	.60	1		.60	.72	>.050
Deviations from Linearity	10.53	10		1.05	1.27	>.050
Error (time)	402.02	484	(319.77)	.83		
Time X Partner Interaction	3.48	11		.32	.81	.630
Error (time by partner)	188.71	484		.39		
<u>COMMITMENT (n = 38)</u>						
Partner Effect	13.96	1		13.96	5.37	.026
Error (partner)	96.11	37		2.60		
Time Effect	5.76	11	(6.75)	.52	1.43	.195
Linear Contrast	.90	1		.90	2.43	>.050
Deviations from Linearity	4.86	10		.49	1.32	>.050
Error (time)	148.68	407	(249.66)	.37		
Time X Partner Interaction	3.67	11	(6.58)	.33	1.56	.154
Error (time by partner)	87.28	407	(243.49)	.21		
<u>COMPOSITE MUTUALITY/TRUST/INTENSITY OF INVOLVEMENT (n = 45)</u>						
Partner Effect	17.65	1		17.65	7.14	.011
Error (partner)	108.67	44		2.47		
Time Effect	3.03	11	(7.32)	.28	.71	.670
Linear Contrast	.00	1		.00	.00	>.050
Deviations from Linearity	3.03	10		.30	.77	>.050
Error (time)	187.37	484	(322.13)	.39		
Time X Partner Interaction	2.60	11	(6.77)	.24	1.34	.231
Error (time by partner)	85.07	484	(297.71)	.18		

Note. Degrees of freedom in parentheses are corrected with the Greenhouse-Geisser Epsilon.

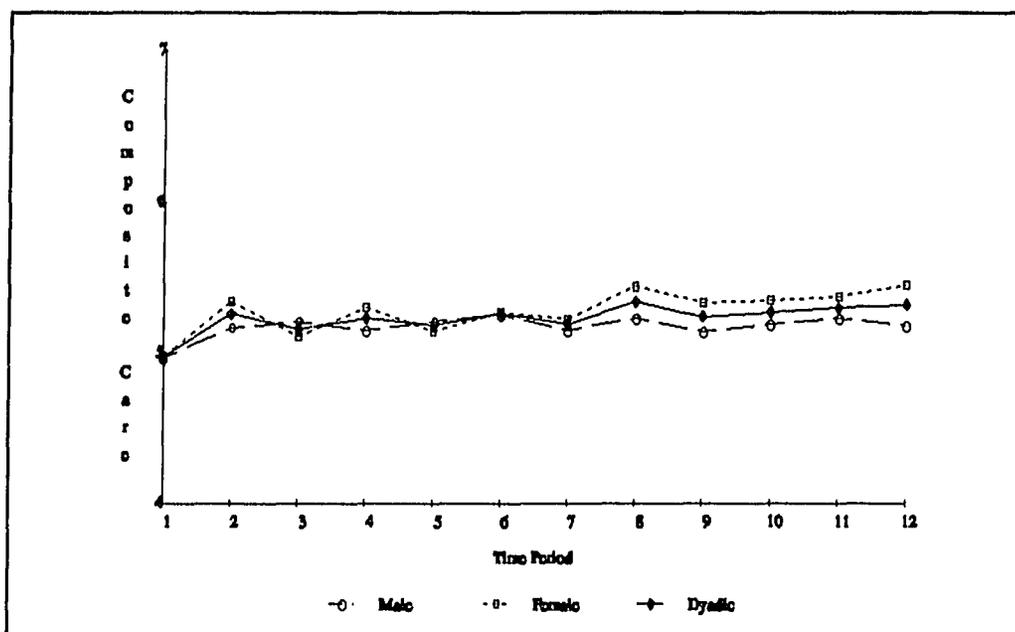
Table 9

Means of Effects of Time, Partner, and Time by Partner Interactions on Each Component Contributing to Intimacy

<u>Intimacy Component</u>	<u>Time Period</u>												<u>Main Effect</u>
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	
<b>COMPOSITE CARE</b>													
Dyadic	4.98	5.26	5.16	5.23	5.18	5.26	5.19	5.34	5.24	5.27	5.30	5.32	
Male	4.97	5.17	5.21	5.15	5.21	5.25	5.15	5.23	5.14	5.19	5.23	5.18	5.17
Female	4.98	5.34	5.11	5.30	5.14	5.27	5.22	5.44	5.33	5.35	5.37	5.45	5.28
<b>DURATION OF INTERACTION</b>													
Dyadic	389	375	327	379	258	332	316	314	353	385	286	341	
Male	396	378	312	374	260	307	311	317	362	363	287	346	334
Female	382	372	341	385	256	356	320	311	344	407	285	335	341
<b>DIVERSITY OF INTERACTION</b>													
Dyadic	4.70	4.70	4.98	4.47	4.67	4.34	4.64	4.73	4.67	4.73	5.13	4.77	
Male	4.56	4.67	5.06	4.38	4.76	4.36	4.61	4.61	4.65	4.71	5.02	4.87	4.69
Female	4.84	4.72	4.90	4.55	4.58	4.32	4.67	4.84	4.69	4.74	5.24	4.67	4.73
<b>SELF DISCLOSURE</b>													
Dyadic	4.18	4.48	4.42	4.52	4.49	4.30	4.38	4.30	4.33	4.39	4.44	4.53	
Male	4.25	4.40	4.39	4.44	4.48	4.30	4.26	4.26	4.24	4.37	4.46	4.41	4.36
Female	4.10	4.56	4.44	4.59	4.50	4.29	4.49	4.34	4.42	4.40	4.41	4.65	4.43
<b>COMMITMENT</b>													
Dyadic	6.00	6.05	5.91	5.95	5.95	6.05	5.91	6.14	5.93	6.06	6.15	6.04	
Male	5.93	5.94	5.85	5.79	5.94	5.95	5.71	6.00	5.83	5.87	6.03	5.79	5.89
Female	6.07	6.15	5.97	6.11	5.96	6.15	6.11	6.27	6.03	6.25	6.26	6.28	6.13
<b>MUTUALITY/TRUST/INTENSITY OF INVOLVEMENT</b>													
Dyadic	5.65	5.82	5.68	5.65	5.67	5.68	5.66	5.72	5.61	5.71	5.75	5.70	
Male	5.58	5.66	5.62	5.52	5.61	5.60	5.46	5.55	5.46	5.51	5.62	5.53	5.56
Female	5.71	5.97	5.73	5.77	5.73	5.76	5.85	5.88	5.75	5.90	5.87	5.86	5.82

Note: Ns vary from 45 to 29 dyads.

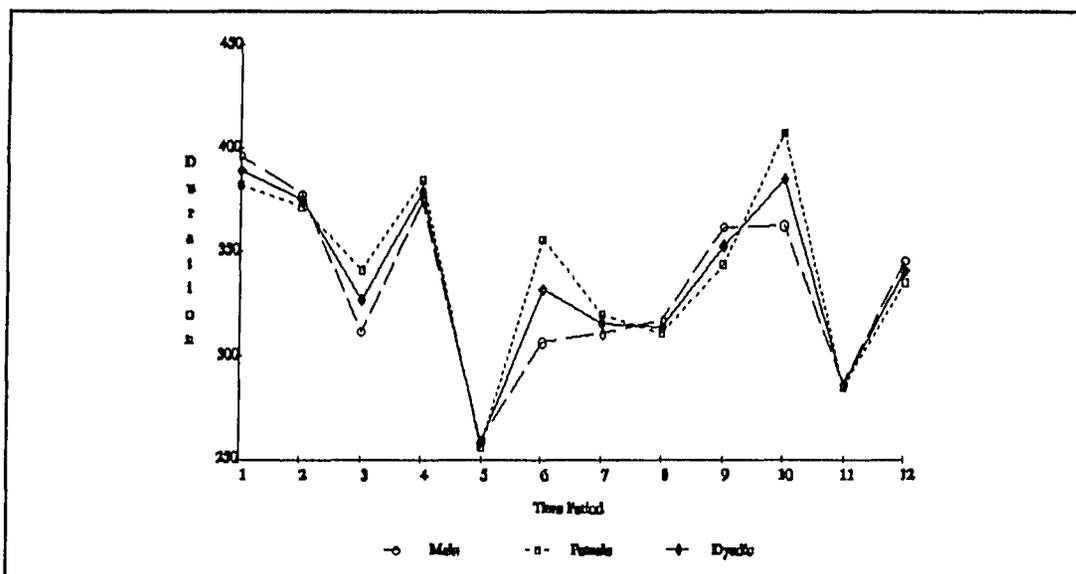
8). Two univariate nonlinear contrasts were also significant:  $F_{T8}(1,28) = 6.39$ ,  $p = .017$ ,  $\eta^2 = .19$ , and  $F_{T12}(1,28) = 5.71$ ,  $p = .024$ ,  $\eta^2 = .17$ . Both of these contrasts represent higher order polynomial trends than quintic. The means in Table 9 indicate that for both males and females, there was a steady decline in the duration of interaction until the end of the second week of study (i.e., the fourth time period) when there was a sharp increase followed by a sharp decrease in interaction duration. Duration appears to increase more slowly from the middle of the third week to the end of the fifth week (i.e., Times 6 to 10) when it reaches a mean maximal level of 6.42 hours (equivalent to 385 minutes) of



**Figure 1.** Plot of means of Composite Care across 12 time periods.

interaction time. Duration then decreases followed by an increase at the final time period. This pattern suggests that duration of interaction is fairly unstable and does not fluctuate with regularity. Over the twelve time periods, there were two large zeniths and nadirs and one small zenith and nadir, but they were not evenly spaced over time. Much of the fluctuation occurred in the second and third weeks and in the fifth and sixth weeks of the study (see Figure 2 for a visual representation of the fluctuations). Because of the participants' staggered starting dates, these effects cannot be attributed to daily, weekly or monthly biological conditions and social events.

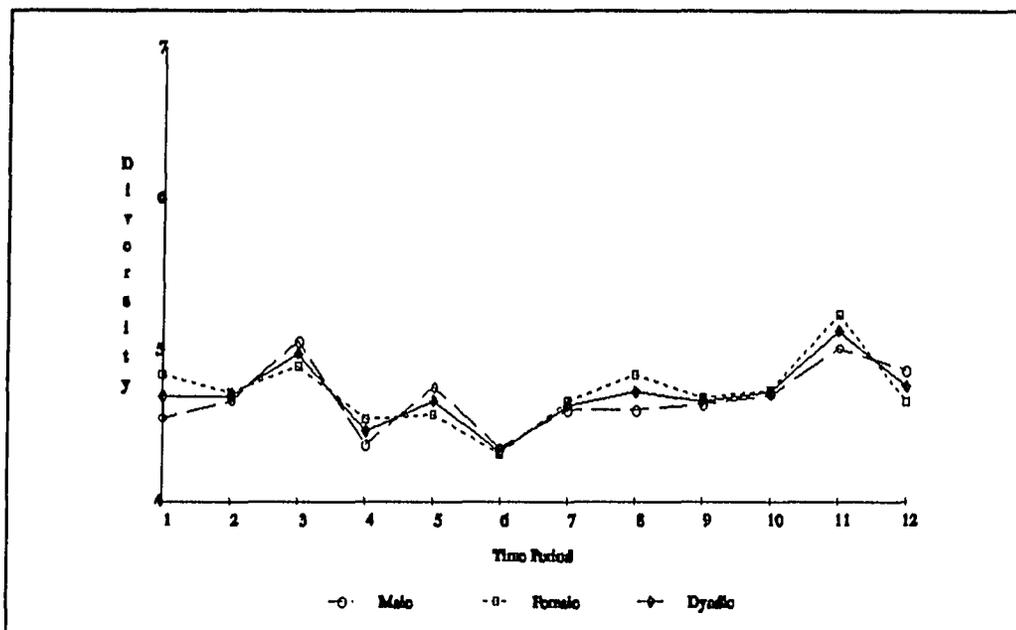
There were two significant univariate polynomial contrasts on diversity of interaction:  $F_{T6}(1,36) = 4.25$ ,  $p = .047$ ,  $\eta^2 = .11$ , and  $F_{T9}(1,36) = 4.64$ ,  $p = .038$ ,  $\eta^2 = .11$ . The weights for the T6 contrast are quartic and indicate that diversity of interaction fluctuated



**Figure 2.** Plot of means for Duration of Interaction (measured in minutes per day) across 12 time periods.

slowly, starting out high, then decreasing, then in the middle increasing again, followed by a decrease, and ending with an increase. This pattern reflects a full oscillation every six time periods (or three weeks). Weights for the second significant contrast, T9, suggest that oscillations are of a higher order than quintic and occur more frequently, once each week. Examination of the means (see Table 9) indicates these two patterns might be overlaid onto each other and that, for this sample, diversity is just above average (the midpoint of 4). The means are plotted in Figure 3 for ease of interpretation of these patterns.

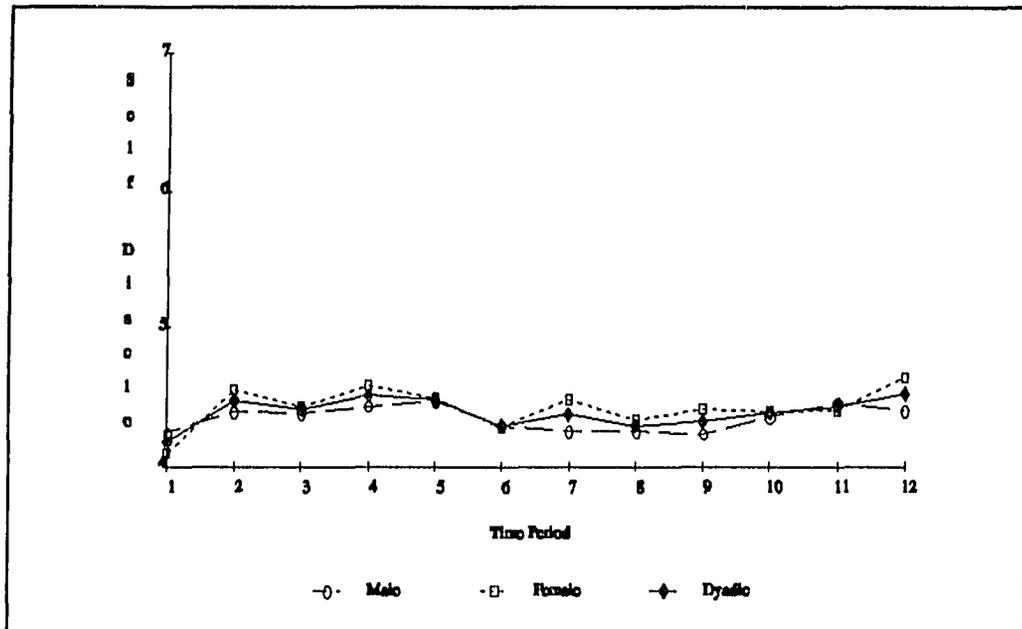
For composite self disclosure, there was one significant univariate interaction between time and partner,  $F_{T18}(1,44) = 5.46$ ,  $p = .024$ ,  $\eta^2 = .11$ . Examination of the means (reported in Table 9), graph (see Figure 4), and the particular contrast weights for this trend indicate a quartic trend that moved in opposite directions for male and female



**Figure 3.** Plot of means of Diversity of Interaction across 12 time periods.

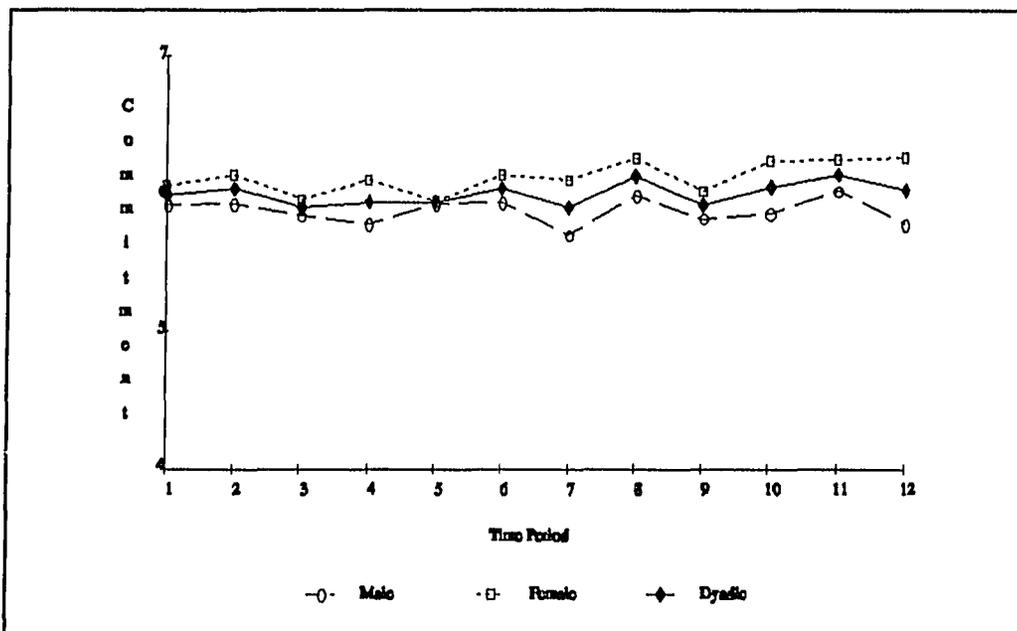
partners. That is, as female partners increased their self disclosure ratings (reflecting both their own and their perception of their partners' self disclosure), males decreased theirs and vice versa. Over the twelve time periods, there were several alternating increases and decreases, reflecting a fluctuation that occurs roughly on a weekly basis.

There were three significant effects for commitment: two univariate contrasts within the time by partner interaction,  $F_{T14}(1,37) = 4.50$ ,  $p = .041$ ,  $\eta^2 = .11$  and  $F_{T22}(1,37) = 7.23$ ,  $p = .011$ ,  $\eta^2 = .16$ , and a partner main effect (see Table 8). Examination of the means (Table 9) indicates that females' commitment generally increased over time while males' decreased. The  $T_{14}$  contrast indicates a linear increase for female partners, and a linear decrease over time for male partners. A more complex pattern occurring within the linear increase and decrease involves multiple fluctuations at each time period (this pattern was a higher order than quintic). For example, a pattern of repetitive increase then



**Figure 4.** Plot of means for Composite Self Disclosure across 12 time periods.

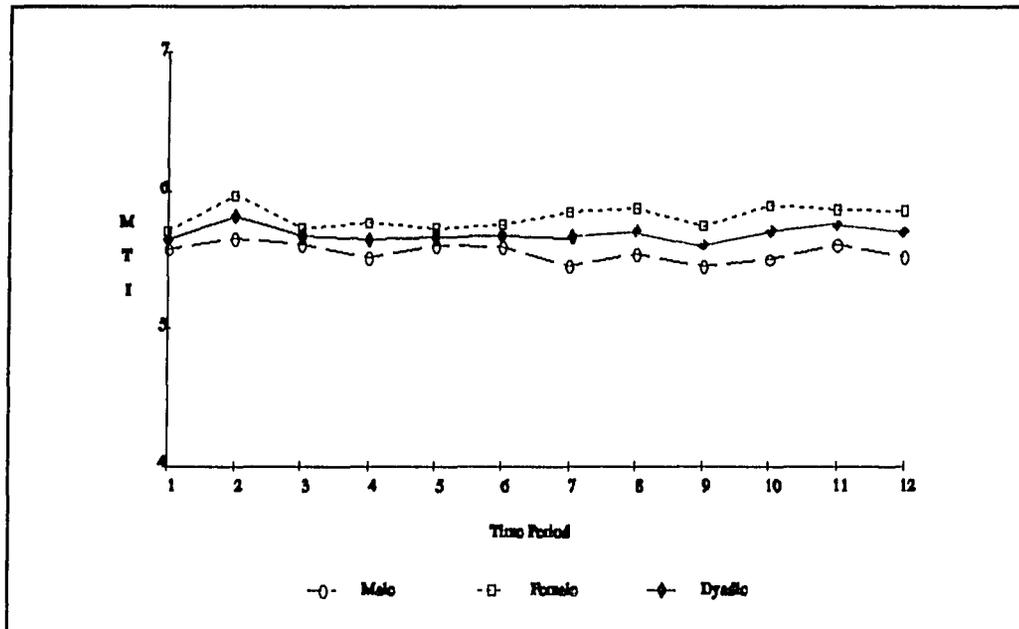
decrease in commitment for females occurred from Time 1 through Time 10 at which point ratings stabilized through the twelfth time period. This stabilization may have been an artifact of the instrumentation since the mean ratings at the last three time periods were over 6 on a 7-point scale. While females oscillated in their ratings of commitment, males did not provide as consistent a picture. When comparing the movements of increase and decrease between males and females, movement was in a similar direction at five of the twelve time periods (Times 2-3, 6-7, 7-8, 8-9, 9-10). At two time periods, males increased ratings of commitment while females decreased and vice versa (Times 3-4, 4-5). Because the pattern of means does not necessarily appear to be disordinal (see Figure 5), means of the main effect of the partner were examined. The female mean was 6.13 and the male mean was 5.89. At each time period females consistently rated commitment higher than males. This may be due to stereotypical female sensitivity, to an exaggerated



**Figure 5.** Plot of means for Commitment across 12 time periods.

perception among females, or to a reality in which females are more committed to their partners and relationships than males are.

For the dyadic level composite of mutuality/trust/intensity of involvement, significant partner effects obtained on ratings of mutuality, self expression of trust and involvement, and perceptions of the partner's expression of trust and involvement (see Table 8). The means for males and females respectively were 5.56 and 5.82, suggesting that females were more positive in their ratings of mutuality, trust, and involvement, though both partners' ratings were above the mid-point of 4.00. The means (reported in Table 9 and graphed in Figure 6) suggest that over time, composite mutuality/trust/intensity of involvement is fairly stable. This conclusion is further supported by the lack of significant effects for time and the time by partner interaction.



**Figure 6.** Plot of means for Composite Mutuality/Trust/Intensity of Involvement across 12 time periods.

### Research Question 3

Research Question 3 inquired whether congruence in partner ratings of the factors contributing to intimacy indicated an overall perception of increasing, non-changing, or decreasing intimacy. Correlations for each variable contributing to intimacy were calculated between dyadic partners across the twelve time periods. These scores were then treated as predictors in a multiple discriminant analysis with the dyadic criterion measure serving as the dependent variable. In other words, this analysis sought to discriminate among groups who, in the end, reported they had grown closer, their closeness had not changed, or were less close than they were at the beginning of the study. Measures of association between dyadic partners for each of the predictor variables were proposed to make this discrimination.

Before discriminant functions can be generated, it must be verified that the three criterion-based groups differ significantly based on the correlations between dyadic partners for the predictor variables. At the dyadic level, four variables were entered into two significant discriminant functions, Wilks' lambda = .72,  $F(8,160) = 3.62$ ,  $p < .001$ . This statistic represents a test of the equality of group centroids. Its significance indicates that four correlated variables, composite mutuality/trust/involvement, composite care, commitment, and frequency of interaction, successfully discriminated 51% (44 out of 86) of the dyads on perceived movement of intimacy. (Table 10 includes a summary of the results.) Six cases were excluded from the analyses due to missing values. The scaled (standardized) and normalized (unstandardized) coefficients of the four variables are included for both discriminant equations. The scaled vectors show the relative contribution of each variable to group discrimination. The normalized vectors are the coefficients of the variables in the discriminant equations. The first function, accounting for 63.33% of the variance, indicates that correlations between partners on commitment and on frequency of interaction are primarily responsible for distinguishing Group 2 (no change in intimacy) from Group 3 (decreased intimacy) (see Table 10 for scaled coefficients and group centroids for this interpretation). The second function, accounting for the remaining 36.67% of the variance, indicates that dyadic correlations on both composite care and composite mutuality/trust/intensity of involvement distinguish Group 1 from Group 3. The structure matrix illustrates which variables correlate with each function. The classification matrix illustrates the percentage of the sample that was correctly categorized according to the two discriminant function equations. While the correct classification of 51 percent of the sample is not an outstanding rate, the two equations do correctly identify a dyad's group membership on the criterion variable in the

Table 10

Summary of Results of the Discriminant Function Analysis for Research Question 3SUMMARY TABLE

<u>Step</u>	<u>Variable Entered in Equation</u>	<u>Wilks' Lambda</u>	<u>Significance</u>	<u>Coefficients</u>			
				<u>Scaled</u>		<u>Normalized</u>	
				<u>I</u>	<u>II</u>	<u>I</u>	<u>II</u>
1	Commitment	.87	.0029	.8948	.5115	4.29	2.45
2	Composite Care	.79	.0008	-.1867	.9739	-.48	2.50
3	Frequency of Interaction	.75	.0008	-.4917	.2252	-1.15	.53
4	Composite Mutuality/Trust/ Intensity of Involvement (Constant)	.72	.0007	.1931	-.7710	-.97	-3.87
						-2.00	.21

CANONICAL DISCRIMINANT FUNCTIONS

<u>Function</u>	<u>Eigenvalue</u>	<u>Percent of Variance</u>	<u>Canonical Correlation</u>	<u>After Function</u>	<u>Wilks' Lambda</u>	<u>Chi- Squared</u>	<u>df</u>	<u>p</u>
1	.2305	63.33	.43	0	.72	27.12	8	.0007
2	.1335	36.67	.34	1	.88	10.21	3	.0169

STRUCTURE MATRIX<sup>a</sup>

<u>Variable</u>	<u>Function 1</u>	<u>Function 2</u>
Commitment	.7874*	.2553
Frequency of Interaction	-.5582*	.2180
Duration of Interaction	-.2464*	.2093
Diversity of Interaction	-.1220*	.0825
Composite Care	-.2099	.7587*
Composite Self Disclosure	-.0379	.1782*
Composite Mutuality/Trust /Intensity of Involvement	.0943	-.1056*

GROUP CENTROIDS

<u>Group</u>	<u>Function 1</u>	<u>Function 2</u>
1 (increasing)	-.14	.34
2 (no change)	.42	-.28
3 (decreasing)	-1.30	-.69

(table continues)

Table 10

Summary of Results of the Discriminant Function Analysis for Research Question 3CLASSIFICATION MATRIX<sup>b</sup>

		<u>Predicted Group Membership</u>		
		<u>1</u>	<u>2</u>	<u>3</u>
<u>Actual Group Membership</u>	<u>1</u>	21 (.24)	14 (.16)	7 (.08)
	<u>2</u>	12 (.14)	19 (.22)	5 (.06)
	<u>3</u>	3 (.04)	1 (.01)	4 (.05)

Notg. <sup>a</sup>Variables ordered by size of correlation within function. <sup>b</sup>Numbers in parentheses are percentages of the total sample; N = 86.

majority of cases for each group. Membership distinction between groups 1 and 2 (increasing and no change in intimacy) appears most problematic, but this is consistent with previous results that ratings on global intimacy and its components are not significantly different between the two groups. Another factor contributing to the low percentage of correct classification of dyads stems from a limited number of predictor variables coupled with error variance in the dependent measure.

In sum, dyads who are congruent on perceptions of commitment and incongruent on perceptions of frequency of interaction are less likely to see their intimacy as decreasing and more likely to see it as unchanging. Dyads who are congruent on commitment and composite care and incongruent on perceptions of mutuality/trust/intensity of involvement are more likely to perceive their intimacy as increasing and less likely to see it as decreasing. Examining profiles of each of the three groups might provide a simpler analysis of these results. Congruence on commitment and composite care coupled with incongruence on mutuality/trust/intensity of involvement indicates intimacy which is growing or increasing. Congruence on commitment along with incongruence on frequency

of interaction suggests intimacy that is not changing. Incongruence especially on commitment and composite care indicates decreasing intimacy. Thus, the answer to Research Question 3 is yes, dyadic congruence on components of intimacy distinguishes groups based on perceptions of intimacy change. Composite care and commitment appear to contribute most to distinctions among the groups, while mutuality/trust/intensity of involvement and frequency of interaction account for a much smaller though significant portion of the variance (based on the change in Wilks' Lambda at each step). These results suggest that congruence on all components is unnecessary to make the distinction among group membership, but multicollinearity and error variance problems may have prevented other variables from entering the two significant equations.

## CHAPTER 4

### DISCUSSION

The purpose of this study was twofold: first, to determine the necessary and sufficient elements critical to the existence of intimate relationships, and second, to examine how these elements uniquely combine and change over the course of a relationship's development. Because intimacy is conceptualized as a multifaceted, dyadic process, its operationalization needed to be isomorphic. That is, in order to examine what intimacy is and how it develops, it was necessary to measure constituent components repeatedly over time and to treat as a dyadic unit assessments provided by both individuals in a relationship.

#### Hypotheses

The first hypothesis and research question examined the nature of intimacy and distinguished between the intimacy of couples reporting an increase and those reporting no change in intimacy over the course of the study. The remaining two hypotheses and two research questions were posed to explore the movement of intimacy over time and the correspondence of actual movement to general perceptions of movement.

Hypothesis 1 stated that frequent, diverse, intense, and extended interaction with one's partner, knowledge of personal aspects of one's partner, mutuality, trust, care, and commitment all contribute significantly to intimacy in personal relationships. Using a liberal test (correlation analysis), this hypothesis was largely supported. Using a more conservative test (regression analysis), the hypothesis was partially supported. All components but frequency of interaction were significantly correlated with global intimacy, but only two -- composite care (composed of the respondent's expression of affection and the perception of the partner's expression of affection) and commitment -- were necessary to explain two-thirds of the variance in global intimacy. When female-

only responses were examined, the same two predictors of composite care and commitment were significant. When male-only responses were examined, commitment remained a significant predictor, but composite care was replaced by composite self disclosure (comprised of the respondent's own self disclosure and the perception of the partner's self disclosure).

These results indicate that six out of seven proposed variables and composites were significantly related to the global construct of intimacy, but that only two were necessary to explain substantial variance in the intimacy construct. Multicollinearity among the variables is the likely reason for additional variables' inability to explain global intimacy variance. Another potential reason for the low number of significant predictors in the regression equations is that items used to assess global intimacy do not adequately reflect non-significant elements such as mutuality, trust, involvement, and frequency of interaction. It is also a possibility that these components are unrelated to intimacy per se, but instead contribute to some aspect of relationships other than intimacy. The implication of these results is that intimacy is multi-faceted, being comprised of a composite of mutuality/trust/intensity of involvement, composite care, composite self disclosure, commitment, and diversity and duration of interaction. A further implication is that men and women in relationships both consider commitment as important to intimacy, but they differ on the extent to which self disclosure and care are related to their intimacy. This finding may result from traditional gender roles and research on stereotypical differences suggesting that women tend to focus more on feelings and nurturing (making caring a more important component of intimacy), while men focus more on activities and outcomes (making self disclosure more important to their intimacy).

The first research question inquired about differences between couples reporting increased intimacy compared to those reporting no change. Research indicates that these

two groups might differ in the importance attached to the various components of intimacy. A Fisher's  $z$ -test for each component revealed that the two groups did not differ significantly on any of the factors hypothesized as contributing to intimacy or on the global measure of intimacy. Perhaps more alarming, but consistent with this finding, was the lack of significance of an ANOVA which compared the two groups' ratings on global intimacy. It is possible that the test instrument itself -- the items, the scaling of the items, or a combination of the two -- was incapable of detecting fine distinctions between those whose intimacy is relatively new and growing and those whose intimacy has stabilized after a period of time. Another possible explanation for these results lies in the potential homogeneity of the sample. That is, in spite of great diversity on demographic characteristics, those who chose to participate in and complete this study were likely to be homogeneous on factors critical to the study, resulting in the lack of significant differences on these components. Another potential problem stems from the aggregation (statistical average over six or 12 time periods) of the measures, allowing high and low scores to cancel one another and producing a moderate score that failed to be significantly different from the averaged scores of the other group. Additionally, the classification of dyads in which one member reported no change in intimacy as an "increasing intimacy" couple may have contributed to the lack of differences between the two groups. Further probing of the data using regression analyses did suggest that different variables were more or less important for the two groups. For those reporting increased intimacy, composite care and commitment were significant predictors of global intimacy. For those reporting no change in intimacy, composite care and the composite of mutuality/trust/intensity of involvement were significant predictors. The regression analyses suggest that while composite care is a significant factor regardless of the movement of intimacy over time, commitment and mutuality/trust/intensity of

involvement may distinguish between growing and nonchanging intimacy, though as noted previously the means of these variables were not statistically different from one another when compared across the two groups. The discriminant function used to answer Research Question 3 also failed to produce a function that distinguished between increasing and nonchanging intimacy groups. On the surface, without considering confounding measurement and sampling problems, these results imply that there were no differences between those reporting increasing intimacy and those reporting unchanging intimacy on the constituent variables of global intimacy. Further, there was no difference between the two groups on ratings of global intimacy. Therefore, it might be useful to consider increasing and unchanging intimacy as a single category rather than two unique configurations. However, without data from a sample of dyads who have recently initiated relationships, the conclusion to combine the two categories into one may be premature.

Hypothesis 2 predicted that for couples reporting increased intimacy during the study, there would be a linear increase in their six weekly ratings of global intimacy. Neither a single-degree of freedom linear contrast analysis nor a repeated measures MANOVA with polynomial contrasts were significant. Examination of the means indicated very little movement in ratings of global intimacy at each time period. These results imply that intimacy at a global level, when it is assessed once per week, is fairly stable. The lack of significance in these analyses may be attributable to several measurement problems. First, the frequency of assessment along with the limited duration of the study could contribute to non-significance. Six weeks represents "a drop in the bucket" for couples who have been together for a year or more, and the potential for changes in their intimacy level is limited. Second, the inability to detect a linear pattern could result from measurement error in that (1) subjects had developed a response bias to

the items either indicating what they felt "all good couples should say" or (2) they initially made high ratings on a scale that had an upper limit (7 on a 1 to 7 point Likert-type scale) preventing them from accurately recording even higher ratings at later time periods. By having couples make these ratings once a week, it is possible they began to memorize the items and had a prepared response to them. This problem was probably exacerbated by the limitations imposed by a 7-point scale if their initial ratings were high, which the means indicate they were. A further concern relates to the choice of scale items which may not be sensitive to fluctuations in intimacy and perhaps reflect stabilized intimacy better than unstable intimacy.

Hypothesis 3 predicted couples reporting increased intimacy would exhibit nonlinear patterns across time for each of the components contributing to intimacy. Research Question 2 asked what these patterns were. There was a main effect of time on composite care, duration of interaction, and diversity of interaction. Analysis of the polynomial contrasts revealed that there were significant deviations from linearity for the time factor on all three of these variables. Composite self disclosure and commitment were affected by the interaction of time and partner. Frequency of interaction and the composite mutuality/trust/intensity of involvement were unaffected by time, however, the partner made a difference in ratings of mutuality/trust/intensity of involvement. For the composite mutuality component and for commitment, females rated the variable higher than males. Because not all the components contributing to intimacy significantly deviated from linearity across time, Hypothesis 3 was only partially supported.

Those factors that did evidence systematic variations due to time were interesting. Composite care and the diversity and duration of interaction all had significant time effects. The two polynomial contrasts significant for composite care suggest a linearly increasing pattern that is punctuated by weekly fluctuations of increased and decreased

care. The linear increase across the six-week time period provides evidence supporting the couples' perceptions that their intimacy increased overall at the conclusion of the study. The significant polynomial contrast indicating fluctuations in care during the course of the study supports the hypothesis. In other words, there are days when expressions of one's care for the partner and perceptions of the partner's expressed care for the respondent actually decrease, but in general, the decreases revert back to increases at subsequent time periods.

Diversity of interaction also produced two significant polynomial contrasts indicating a larger period of fluctuation occurring over three-week periods, overlaid onto a more rapid fluctuation that occurred weekly. It is possible to imagine couples who engage in routine tasks such as doing laundry or tending the yard during one part of the week and going out to eat or to see a movie or to be with friends during the other part of the week. This represents weekly patterns of non-diversity followed by diversity. Then, perhaps every three to four weeks, couples may participate in some activity they do not normally do, such as going to an amusement park or state fair, or taking a weekend ski or camping trip. This example illustrates the larger pattern of fluctuation occurring over three-week time periods.

The third variable influenced by time was duration of interaction. For this variable there were two significant nonlinear contrasts suggesting that fluctuations in duration of interaction are highly erratic. Coupled with the significant patterns for diversity of interaction this makes sense. In performing routine tasks, duration of interaction may be short, but when engaged in some leisure activity as a couple, duration increases. If that leisure activity involves a trip out of town, duration increases even more. Conflicts may represent another activity that occurs infrequently but provides an opportunity for diverse interaction that may last for short or long periods of time.

The two variables on which partner's patterns varied over time were composite self disclosure (representing the respondent's knowledge of the partner and the partner's knowledge of the respondent) and commitment. For composite self disclosure, the pattern of means indicates that there were weekly fluctuations in the degree to which the respondent and his or her partner revealed information about themselves, and that partners tended to move in opposite directions. This means that when one partner rated self disclosure as high, the other rated it as low. Within the same week (or seven-day period), they switched their ratings with the one initially making low ratings now making high ratings and the other partner doing the reverse. At a practical level, it makes intuitive sense that when one partner talks about him or herself or is actively exploring news from the other, the other partner might play a complementary listener role or might be reticent to reveal information that the first person is trying to extract. Understanding that partners alternate roles in order to maintain coordinated interaction provides an explanation for the weekly fluctuations in this component of intimacy.

Commitment also evidenced two significant univariate time by partner interactions as well as a significant partner main effect. Female partners were more consistent in their oscillation pattern over time and male partners indicated more periods of stable commitment punctuated by brief periods of oscillation. Further, it appeared that females initially rated commitment higher than males and females gave increasingly higher ratings as time passed while males gave increasingly lower or constant ratings.

Overall, the fact that there were significant nonlinear trends on a number of variables which contribute to intimacy indicates that these emotions, cognitions, and behaviors are not constant over time. Instead, they wax and wane, similar to the pattern predicted by a dialectic model. Further, the fluctuations of each variable are not consistent with each other. For example, the rapid fluctuations seen in commitment do not necessarily

correspond with the slower fluctuations of interaction diversity. It is likely that changes in the direction of any of these variables result (1) from a satiation of one end of a bipolar continuum (e.g., great diversity) creating a need for its opposite (e.g., great stability) and (2) from the attribution of intimacy at any point in time based on meaning inferred from immediately preceding interactions (or the lack thereof when interaction was expected) which then influences subsequent behavior, thought, and feeling.

The fact that frequency of interaction was unaffected by time or partner is further indication in addition to the problems noted previously that this variable was a fairly unreliable indicator of intimacy. It is not that the conceptualization of interaction frequency is erroneous, but that the measurement of it was unreliable. This was noted previously in the discussion of reliabilities in the methods section of this study. The finding that mutuality/trust/intensity of involvement was unaffected by time indicates that this quality was relatively constant for the couples participating in this study. In fact, this may be the critical factor on which couples in this study are homogeneous, preventing a distinction to be made between those reporting increased intimacy and those reporting no change (see Research Question 1).

When the results of Hypotheses 2 and 3 and Research Questions 1 and 2 are considered in combination, several theoretical implications arise. A summary of the findings thus far indicates: (1) there are no significant differences on these components of intimacy between the perceptions of dyads who consider themselves to be increasing in intimacy and those who perceive their intimacy as unchanging; (2) the progress of global intimacy over time appears to remain stable rather than increasing linearly as predicted, specifically for those who claim their intimacy increased; and (3) there are significant deviations in linearity over time in many, but not all, of the components contributing to intimacy for those claiming their intimacy increased. These data indicate that the two

groups labeling themselves as either increasing or unchanging in intimacy are more similar than they are different. Further, perusal of some of the critical demographic characteristics of the sample, such as length of relationship and relationship level, suggest that the sample is skewed in a committed and monogamous direction. This leads one to the conclusion that even those reporting increased intimacy might more appropriately fall into a "stabilized" or unchanging intimacy category. The lack of a significant linear increase in perceptions of global intimacy is yet another indication that those couples claiming to have increased intimacy are more stable than they think or than they want others to know.

Given the stability of the global intimacy item over time, the finding of significant deviations from linearity for many of the components of intimacy is interesting. Couples who are asked to consciously reflect on their interactions on a daily basis can and do recall specific events and exchanges substantiating the notion that dialect tensions are in operation. However, if couples perceive a certain amount of stability in their global or general intimacy, while recognizing the daily ups and downs, a question is raised about the extent to which dialectic processes are useful in explaining intimacy movement. In other words, the development of intimacy may be "smoothed out" not just by a statistical manipulation, but because of a real life process that causes people to place the daily ups and downs in the back of their minds, leaving them to consciously recall a simple smooth progression of intimacy over time. Partners' perceptions of their closeness are relatively stable and appear rather automatic. This reasoning suggests that a heuristic model of intimacy is operating as opposed to a cognitive model implicated by social exchange principles. It is possible that a cognitive model would be more useful in explaining intimacy development of those who truly are beginning a new relationship, getting to know one another, and engaging in active testing of one another's commitment. Perhaps

once the "commitment tests" have been passed, people tend to slip into something similar to automatic pilot, and their perception of intimacy is more gestalt than detailed. If this is the case, then the more global models of intimacy developing in stages rather than specific dialectic tensions, and processes allowing for gestalt heuristic perceptual reasoning, appear more useful in explaining and predicting the progression of relationships, at least for couples whose intimacy growth has stabilized.

The third research question addressed the notion that congruence in dyadic partners' ratings on components of intimacy might reflect their overall perceptions of increasing, decreasing, or non-changing intimacy. Using a discriminant analysis, four variables were critical in distinguishing among the groups: composite mutuality/trust/intensity of involvement, composite care, commitment, and frequency of interaction. Two functions emerged as significant. The first indicated that correlations between partners on commitment and on frequency of interaction distinguished those reporting no change in intimacy from those reporting decreased intimacy. The second function indicated that dyadic correlations on both composite care and composite mutuality/trust/intensity of involvement distinguish those reporting increased intimacy from decreased intimacy. Though the correct classification of only 51 percent of the sample is problematic, the two discriminant equations provide information that allows one to draw a unique profile of each group. Congruence on commitment and composite care coupled with incongruence on mutuality/trust/intensity of involvement indicates intimacy which is growing or increasing. This finding is anomalous and requires further investigation. Congruence on commitment along with incongruence on frequency of interaction suggests intimacy that is not changing. Incongruence, especially on commitment and composite care, indicates decreasing intimacy. The distinction between couples reporting increased and unchanging intimacy is least clear compared to distinctions among any other combination of groups,

but this is consistent with previous results that ratings on global intimacy and its components are not significantly different between the increasing and non-changing groups. These results suggest that congruence on all components of intimacy is unnecessary to make the distinction among group membership, but multicollinearity and error variance problems may have prevented other variables from entering the two significant equations. The general conclusion is that patterns of congruence and incongruence between partners on at least some of the variables contributing to intimacy is predictive of perceptions of intimacy movement.

#### Limitations of the Study

Several limitations of this study were noted in the discussion of results. Here they are summarized and their biasing effects articulated. Before addressing methodological difficulties, though, theoretical implications are summarized first. In examining the findings in combination, it becomes clear that people tend to process their intimacy with others in a more mindless rather than mindful fashion, at least once they have moved past an initial development level. Of course, when individuals are asked to respond to questions about specific activities and interactions on a daily basis, they indicate these interactions do influence their perception of the relationship. Lack of agreement between partners on some items, however, indicates that processing of this information proceeds through a sort of mental filter causing some biases and distortions to become evident. But when individuals are asked more global questions about the intimacy level in their relationships, the evidence suggests that in spite of prompted recall of specific interactions (which probably does not happen very often outside of a controlled study such as this one) perceptions of global intimacy remain stable. The conclusion is that although there is evidence of dialectic processes occurring, these tensions have little impact on the way

people perceive their relationships at a more global level. Thus, dialectics are less useful than stage models as an explanatory mechanism for intimacy development.

In addition to the theoretical implications, there were a number of methodological difficulties associated with this study which need to be addressed. One explanation for the lack of significant results in this study is sample bias. Though initially it appeared that subjects were diverse on a number of demographic characteristics, a follow-up measure of relationship category suggests that only couples who had some degree of commitment and relationship familiarity self-selected into this study. The snowball sampling technique employed in order to obtain an adequate sample size coupled with the researcher's limited resources, hence reliance on volunteer participation (70 percent of the sample), created a situation in which only those who had a vested interest in their relationships completed the study. Krokoff, Gottman, and Roy (1988) note that the snowball sampling procedure ". . . is susceptible to the biases of both the investigator (who may initially select subjects who conform to the investigator's hypotheses . . .) and the participants (who may recommend others with similar characteristics)" (p. 204). Krokoff et al. (1988) found in their own work that unhappy (or distressed) couples tend to refer to other unhappy couples they know. It follows that happy (or nondistressed) couples would act similarly by referring other happy couples to the researcher.

In addition to the lack of statistically significant differences among groups, there were three other indicators of a sampling bias. First, reasons offered for both volunteer (e.g., "this will be good for us") and discontinuing (e.g., "we fight too much") participation suggest a bias toward dyads who were actively working on improving or maintaining their relational bond (the definition of commitment). Second, the follow-up measure by which participants categorized the nature of their relationships indicates that approximately three-quarters of subjects were either married or considering marriage, a strong indication

of the bias toward improving or maintaining relationship bonds. Third, though several variables hypothesized as contributing to intimacy were not significant, commitment was a significant predictor of dyadic, male-only, female-only, and increasing intimacy (see the discussion of Hypothesis 1 and Research Question 1). Measures which might have confirmed a bias toward committed participants include Spanier's Dyadic Adjustment Scale and Norton's Relationship Satisfaction Measure. These two measures are considered outcomes of relationships, and were not included because this study was not intended to assess outcomes, but instead processes. Upon reflection, however, the inclusion of one or both of these scales would have proven useful in random selection of participants and as an explanation of the results.

Though the bias toward a sample which was homogeneous on critical factors may provide sufficient explanation for non-significant results, there were at least three potential sources of measurement error in this study. The first source of measurement error may have been due to a response bias. Two causes of this bias, addressed previously, may be due to participants (1) responding to measurement items with what they consider are socially acceptable answers, and (2) developing a response set to the items. One precaution taken to prevent a response bias included oral instructions to participants stating that there were "no right or wrong" answers and both oral and written instructions that only interactions in the immediately preceding 24 hours should be considered when responding to the items. Another precaution taken was to have subjects exchange with the researcher completed forms for new forms a minimum of once per week (generally twice per week), preventing respondents from reviewing their previous responses. Randomizing items on the forms across six time periods and exposing subjects to the same item once every three to four days were additional precautionary measures taken to prevent a response bias. In spite of these tactics to reduce a response bias, a few subjects ( $n = 5$ )

reported to the researcher that by the fourth week of the study, they began responding habitually to items and recognizing them without having to read them completely. These subjects were cautioned again to respond to items with only the previous 24 hours of interaction in mind and to read the items carefully. Though response bias may have contributed to these findings, an alternative explanation suggests the stability over time evidenced for several components of intimacy and for global intimacy itself simply may reflect the gestalt thought processes and habituated nature of interaction patterns discussed previously.

The wording of particular items may have been a second source of measurement error and potentially contributed to the response bias previously discussed. Items worded in the negative form (e.g., "I ignored my partner's feelings and opinions today") tended to elicit strong reactions from respondents. At least two older couples (over 60 years old), one of which failed to complete the study for this very reason, commented to the researcher that these questions did not apply to them. Another subject complained about a trust item ("I wanted my partner to trust me today"), stating, "Who wouldn't want her boyfriend to trust her?" Comments were also made about two commitment items ("After interacting with my partner today, I feel another potential partner would not have to be attractive for me to pursue a new relationship" and "Considering today's interactions with my partner, I am very obligated to continue this relationship"). Participants had difficulty understanding the former in its negative form and the latter because they were not sure what "obligated" meant. One final item which appeared to be ambiguous based on its range and standard deviation was the single-item measure of interaction frequency. Following one week of participation, a male subject asked the researcher if he and his girlfriend were together all day Saturday, but she left twice to go to the store, did that count as one interaction or three. Others responding to this item indicated as many as 100 interactions in a 24 hour

period. Regardless of the comments made about specific items, alpha reliabilities for the items indicated that the scales were reliably measured and that reliabilities would not be improved by eliminating items. Item reliabilities of the frequency and duration of interaction measures could not be computed since they were single items, but reliability across time for both these measures was high indicating their stability over time contrary to the prediction of Hypothesis 3. The low partner reliability for the frequency measure suggests either that this is an unstable measure or that partners do not agree how often they interacted. The disagreement over the meaning of interaction frequency could have contributed to this variable's statistical inability to predict intimacy or contribute to its development. Perhaps the wording of the interaction frequency item should be clarified and greater detail should be provided in the instructions to participants on how to respond to it.

A third source of measurement error potentially contributing to the lack of significant results lies in the frequency of item assessment and overall length of the study. For couples who have already established a relational bond, six weeks may not represent enough time to detect changes in the global level of intimacy. The length of this study was based on VanLear's (1991) finding that fluctuations in self disclosure among previously unacquainted pairs occur approximately every two weeks. Baxter and Wilmot (1983) also found that fluctuations in self disclosure occur more frequently and with greater amplitude in earlier stages of relationship development than in later stages. Although it was initially thought that three times the length of known fluctuations in one element contributing to intimacy would enable the researcher to detect patterns of intimacy change, this assumption may be inappropriately applied to a global perception of intimacy among couples who have a well-established relational bond. It was assumed that the designation of a six-week time period would enable the researcher to distinguish dyads in

the early stages of relationship development from those in later stages. The inability to detect differences between self-selected groups (based on perceptions of changes in intimacy) indicates that dyads were more similar than they were different. In other words, given the homogeneity of this sample, by assessing global intimacy less frequently (e.g., once per month rather than week) and for a longer period of time (e.g., six months to a year), patterns of global intimacy development may become more apparent. The daily assessment of components of intimacy appeared to be appropriate, however, as a number of cyclical patterns were detected in these variables. The trade-off for this frequent assessment is a response bias for the components of intimacy.

In retrospect, the nature and requirements for participation in this study preclude the participation of couples who are in initial stages of relationship development. The mere act of agreeing to participate implies an active commitment to examining one's relationship. This can be an uncomfortable and undesirable activity for those who are reticent or unsure they want to pursue a relationship with another. Compounding this difficulty is persuading one's relational partner to complete the study. Now, not only has one partner made a public commitment to examine the relationship, but both have, either implying an already existent level of relationship commitment or causing the existing level to be strengthened. The conscious examination of one's relationship can be a daunting task.

A related issue of comfort and the associated willingness to participate in a study on relationships is raised when one considers the difference between nondistressed (happy) and distressed (unhappy) couples. People who are unhappy in their relationships, whether their relationships are initially developing or deteriorating, may be resistant to examining that which hurts them or induces negative emotions. This is also compounded by the fact that both partners' participation was required. If only one partner was reluctant to

participate or discontinued after beginning participation in the study, then data for the dyad was not included in the analyses. In fact, this occurrence led at least two couples who began the study but did not complete it to question whether or not they even had a relationship. Thus, in consideration of the couples who will automatically self-select out of the sample, a longer and less frequent time frame for assessing global intimacy appears more appropriate for those who continue to participate. The daily recording of specific behaviors and cognitions and emotions based on behaviors and communication appears appropriate given that five out of seven variables evidenced fluctuations over time. The total time of assessment for these variables, however, should be lengthened to correspond with the total time of assessing global intimacy. One must then contend with the effects of a response bias in exchange for the detection of cyclical and linear patterns that occur as frequently as every three days.

It was mentioned previously that the failure of a number of variables conceptualized and hypothesized to contribute to perceptions of intimacy may be a signal of specification error. The lack of systematic patterns in analyses of residual scatterplots increases confidence in the claim that relevant variables were not omitted and irrelevant variables were not included. It is possible that the lack of heterogeneity for critical dimensions of intimacy lead to the inability to support Hypothesis 1. The fact that two-thirds of the variance in global intimacy was accounted for by only two variables draws attention to this biasing effect. Examining responses from a greater diversity of couples (e.g., those more tentative in the development of their relationships, those who might be considered more volatile due to conflict or dissatisfaction, and those falling outside the "romantic" domain) would be useful in determining the relative importance of variables found to be nonsignificant in this study. Should certain variables continue to be nonsignificant with

different samples, then eliminating them in subsequent models would produce more accurate readings of significant variables' contributions.

One final limitation must be addressed. For the tests involving the development of intimacy over time, it can be argued that repeated measures MANOVAs inadequately describe the progression of intimacy. A more precise test is time-series regression. However, several issues precluded the use of this statistical test. Because the design of this study was non-experimental, there was no manipulation which would allow a comparison of a baseline to subsequent responses. In other words, interrupted time-series analysis could not be used, and instead general time-series analysis would be more appropriate. General time-series analysis requires a minimum of 50 observations to draw meaningful conclusions about the data. Given the labor-intensive nature of making only 12 observations and the potential for response bias involved, 50 observations would compound substantially the problems already noted. Given the exploratory nature of this study, repeated measures MANOVAs appear justified. Until one can claim with certainty that (1) intimacy is comprised of a limited number of variables, (2) that these variables can be measured over time with high reliability, and (3) that each tends to develop in a specified direction or pattern, the effort, time, and resources required of both researcher and participant to assess 50 or more time points of each variable is questionable.

Notwithstanding the number of problems associated with this study, its greatest strength lies in the fact that a case has been made for assessing intimacy as a dyadic, processual, and multivariate construct that changes as individuals interact (or fail to interact). Though only two variables were significantly associated with the global construct of intimacy in a multiple regression equation, additional analyses and tests revealed that each hypothesized variable was significant in explaining some aspect of intimacy or its development. The particular method employed, having subjects complete a

survey once per day for six weeks, enabled the researcher to access daily interactions and activities of couples with as little intrusiveness as possible. If couples responded to surveys only after interactions, then the effects of non-interaction when interaction is expected would not be tapped or would be counted as error variance. If couples were required to report to a laboratory once per week for six weeks, the effects of memory would distort their reports of the previous week's interactions more so than the method of recording daily their impressions. In fact, several participants reported having difficulty on the seventh day's form in reporting the locations and topics of interaction for the entire past week. One improvement would be to allow subjects to record significant events (e.g., conflicts, celebrations, etc.) on the day the event occurs. This would limit distortion caused by memory or subsequent interactions.

This study has demonstrated what previous research in this area has failed to examine: the concomitant impact of multiple factors on a relationship's development with a focus on the meanings (both emotional and cognitive) associated with communication and other behaviors (or lack thereof). In addition, results of this study demonstrate that particular aspects of intimacy, such as expression and interpretation of commitment and caring, fluctuate over time and that partners are not always in agreement about these perceptions. In fact, relational partners do not always agree on more objective qualities of their relationships such as the number of children they have or the length of their relationships. Yet, relationships continue to survive and thrive in spite of these discrepancies.

#### Future Research Directions

The limitations associated with this study point to a number of avenues to pursue. First and foremost, the variables hypothesized as contributing to intimacy should continue to be examined with different populations. It may be that for fairly committed heterosexual romantic couples, commitment, care, and mutuality/trust/intensity of

involvement are the most critical factors, but that does not imply that the remaining variables (i.e., knowledge of the partner, and frequency, diversity, and duration of interaction) are not important to qualitatively different relationships or at different times in a relationship's development. Moreover, intimacy is conceptualized as a process occurring in any social relationship. Therefore, this same method should be applied to distressed romantic couples, distressed and nondistressed roommates and friends, siblings, and parent-child relationships. Because of the implied commitment to the relationship and relational partner associated with the longitudinal aspect of this study's method of data collection, it is unlikely that first-time and casual daters would provide reliable data to compare to the other groups. However, by employing the same method and retaining the same set of variables, results from different groups other than first-time and casual daters could be compared and conclusions drawn about the relative importance of different qualities of intimacy.

Another avenue to pursue in the future is to track intimacy development and change over a longer period of time than six weeks. This would enable the researcher to detect patterns of change in more stable longer-term relationships that are likely to take more than six weeks to occur. Additionally, including an item that allows participants to provide finer distinctions about the level of global intimacy to supplement the 7-point Likert-type scales might alleviate the problem of subjects' reaching an upper limit in the degree of relational intimacy they experience and report. One suggestion would be to provide an "intimacy scale" that is numbered from -10 to +10 with 0 representing a neutral midpoint. This presentational format might better correspond with subjects' cognitive schema about relationships and possibly could eliminate the effects of an apparent upper limit associated with a 1 to 7 scale.

Relatedly, the association between changes in intimacy and its constituent elements should be examined in relation to outcomes, such as communication satisfaction and dyadic adjustment, and antecedents, such as conflict, special occasions, or conversational topics. Though it was not the focus in this study, data were provided about the subjects' topics of conflict and how they were handled each week. Examining antecedents and outcomes would provide greater insight into how the process of intimacy unfolds, what causes or prompts the oscillating patterns of intimacy components.

Thus far, a focus in this discussion has been on participants' perceptions to the exclusion of observers'. If we assume an objective reality which can be discovered and we further assume that behavior carries consensually recognizable meanings, then a parallel focus on observers' perceptions of relationship intimacy would be appropriate. It goes to reason that if observers consistently indicate that behavior X but not behavior Y is associated with attributions of intimacy, then they would make the same attribution about their own relational intimacy with another. If there is disagreement among observers about whether some behavior or interaction was intimate or to what degree it was intimate, differences in judgement might be systematically attributed to a psychological, demographic, or background variable. This might contribute to an explanation for why participants see the same behavior or interaction differently, potentially leading to conflict, avoidance, or enhanced communication. The explanation provided by observers, however, would not be complete. Participants' attributions are based not only on observable behaviors, but also on internal cognitive and affective responses which are in part based on relationship history with a partner. Observers cannot see this aspect. But by comparing participant to observer reports of the same interaction, one could begin to discern the relative impact behavior, cognition, and emotion have on subjective and objective assessments of intimacy. In other words, observers might provide a different

type of objective measure (as compared to daily ratings by participants) of a relationship's intimacy. Though incomplete because of lack of knowledge of participants' thoughts, emotions, and relationship history, observer's reports would provide yet another perspective on what intimacy is.

### Conclusion

This study was conceived as a reaction to the limited perspectives of previous research on intimate relationships. Some researchers focus on a limited number of variables or assume that positive values of variables are more intimate than negative values. Others view intimacy as an individual experience or stable outcome, thereby eliminating the possibility that intimacy changes due to communication and mutual activity with a partner. The view of intimacy offered in this monograph allows communication to play a more prominent role than previously conceptualized. As such, intimacy is assumed to be a process that is constantly negotiated or enacted by two people who are cognitively, affectively, and behaviorally interdependent. The three levels or types of interdependence imply that intimacy is multifaceted. The only objectively observable aspect of intimacy is behavioral interdependence, and even this quality of relationships is fairly inaccessible to the researcher since much of the interaction that occurs in close relationships would be considered "back stage" (in Goffman's terms) behavior. That is, many intimate partners engage in interactions that are not readily accessible to the public.

Perhaps objective observation of behavior is unnecessary, but instead the subjective experiences and inferences of relationship partners are more important in defining the intimacy of a relationship. Of course, subjective experiences and inferences are based on subjects' observations of their partners' behaviors and knowledge of the absence of or discrepancy in behavior when one was expected.

The results of this study suggest that intimacy is comprised of a number of qualities which wax and wane over time. To conclude that intimacy does not develop linearly at a global level would be premature given the warning signs discussed in the limitations and results sections of this study. What is clear is that intimacy must be conceptualized and operationalized as a dyadic phenomenon, and that one-shot assessments of intimacy in relationships cannot accurately reflect the fluid nature of its development. Research on the process of intimacy development requires longitudinal examination.

## APPENDIX A

## ITEMS MEASURING GLOBAL INTIMACY AND ITS COMPONENTS

**Note:** Item numbers followed by an R are reverse scored. Except where noted (\*), participants were asked to indicate the extent to which they agreed or disagreed with the statements 7-point Likert-type scales, with 1 indicating strong disagreement and 7 indicating strong agreement.

## Global Intimacy Measure

1. My relationship with my partner is close.
2. My partner and I are dependent on one another for our emotional needs.
3. I miss my partner when we cannot be together.
- 4R. My partner and I do not need each other physically.
5. I express my closeness to my partner.
- 6R. My partner and I are distant with one another.
7. My partner and I are dependent on one another for our intellectual needs.
- \*8. List all the topics of conversation that you and your partner talked about this week. Indicate by circling the topic that came up most frequently.
- \*9. Check all the types of communication you had with your partner this week. Indicate by circling the type which occurred most frequently.
  - \_\_\_\_\_ face-to-face
  - \_\_\_\_\_ local phone
  - \_\_\_\_\_ long-distance phone
  - \_\_\_\_\_ mail (regular or electronic)
- \*10. For face-to-face interactions, list all the places in which you and your partner interacted this week. Indicate by circling the location where you interacted most frequently.
- \*11. Did you and your partner have any disagreements this week? (check one)  
Yes \_\_\_\_\_ No \_\_\_\_\_
  - \*11a. If yes, list the topics of disagreement.
  - \*11b. How did you manage your disagreement(s) and what were the outcome(s)?

### Measures for Components of Intimacy

#### Intensity of Involvement (partner's)

- 1R. Today my partner was detached during our conversations.
- 2. During our conversations today my partner was interested in what I had to say.
- 3. During our conversations today my partner showed enthusiasm while talking to me.
- 4R. My partner created a sense of distance between us today.
- 5R. My partner acted bored by the conversations we had today.

#### Intensity of Involvement (self's involvement)

- 1R. Today I was detached during our conversations.
- 2. During our conversations today I was interested in what my partner had to say.
- 3. I showed enthusiasm during my interactions with my partner today.
- 4R. I created a sense of distance between us today.
- 5R. I acted bored by the conversations we had today.

#### Diversity of Interaction

- 1. My partner and I did a wide variety of activities together (e.g., chores/tasks, relaxation, talk, exercise, etc.).
- 2. My partner and I spent time relaxing together.
- 3. My partner and I ran our errands and did chores together.
- 4. My partner and I visited with other friends together.
- 5. My partner and I got together just to talk.

#### Frequency of Interaction

- \*1. During the time period you indicated at the beginning of this survey, indicate how many times you interacted with your partner.

#### Duration of Interaction

- \*1. Approximately how many hours and minutes during this time period did you spend in interactions with your partner (excluding sleeping time)?

Knowledge of Personal Aspects of One's Partner

1. Today my partner described a number of aspects of him/herself.
- 2R. My partner shared only a small part of him/herself today.
3. My partner revealed many things about him/herself today.
4. Today my partner told me intimate things about him/herself.
- 5R. My partner discussed only information of a public nature about him/herself today.

Partner's Knowledge of Personal Aspects of Self (self disclosure)

1. Today I described a number of aspects of myself to my partner.
- 2R. I shared only a small part of myself with my partner today.
3. I revealed many things about myself to my partner today.
4. Today I told my partner intimate things about myself.
- 5R. I discussed only information of a public nature about myself with my partner today.

Mutuality

1. Both of us were satisfied with the way we handled decisions between us today.
2. We agreed on what we could expect from one another today.
3. Today, we were attentive to each other's comments.
4. We both had an equal 'say' in decisions that were made today.
5. We were cooperative with each other.
- 6R. My partner ignored my feelings and opinions today.
- 7R. I ignored my partner's feelings and opinions today.

Trust (my partner signalled trust to me)

1. My partner was reasonable when we interacted today.
2. My partner was sincere when s/he spoke with me today.
3. My partner wanted me to trust him/her today.

4. My partner was honest in communicating with me today.
- 5R. I distrusted what my partner told me today.
- 6R. My partner acted insincere when s/he spoke with me today.

Trust (my expression of trust to my partner)

1. I was reasonable when I interacted with my partner today.
2. I was sincere when I spoke with my partner today.
3. I wanted my partner to trust me today.
4. I was honest in communicating with my partner today.
- 5R. My partner distrusted what I told him/her today.
- 6R. I acted insincere when I spoke with my partner today.

Care (partner's affection toward self)

1. My partner expressed his/her affection toward me today.
- 2R. It was difficult to ignore my partner's faults today.
3. My partner acted very possessive toward me today.
4. My partner acted like he/she would be miserable if we could never be together again.
5. My partner was concerned for my happiness today.
6. My partner wanted me to confide in him/her today.

Care (my affection toward my partner)

1. I expressed my affection toward my partner today.
- 2R. It was difficult for my partner to ignore my faults today.
3. I felt very possessive toward my partner today.
4. If I could never be with my partner again, I would feel miserable.
5. I was concerned for my partner's happiness today.
6. I wanted my partner to confide in me today.

Commitment

1. Considering today's interactions with my partner, it is very likely that our relationship will be permanent.
- 2R. Today, I was attracted to other potential partners or a single lifestyle.
3. After interacting with my partner today, I feel it is very likely we will be together six months from now.
4. Based on the interactions I had with my partner today, it would be a great deal of trouble to me personally to end our relationship.
- 5R. After interacting with my partner today, I feel another potential partner would not have to be attractive for me to pursue a new relationship.
6. Considering today's interactions with my partner, I am very obligated to continue this relationship.

Additional Questions Included on the Final Survey  
to Determine Demographic Characteristics  
and Verify Relationship Movement

- \*1. Check the one category that best describes your relationship with your partner:
  - \_\_\_\_\_ we have never officially dated
  - \_\_\_\_\_ we have been on one date
  - \_\_\_\_\_ we date each other casually
  - \_\_\_\_\_ we date each other exclusively
  - \_\_\_\_\_ we are seriously considering marriage
  - \_\_\_\_\_ we are married
- \*2. Do you have children? (check one) \_\_\_\_\_ yes \_\_\_\_\_ no
  - \*2a. If yes, how many? \_\_\_\_\_
  - \*2b. If yes, what are their ages? \_\_\_\_\_
- \*3. Do you live with your partner? (check one) \_\_\_\_\_ yes \_\_\_\_\_ no
- \*4. How long have you known your partner? \_\_\_\_\_ years and \_\_\_\_\_ months
- \*5. During a typical week, how many days do you interact with your partner?
  - \_\_\_\_\_
- \*6. What is your age as of today? \_\_\_\_\_

- \*7. What is your occupation? \_\_\_\_\_
- \*7a. If you are a student, what year in school are you (freshman, sophomore, junior, senior, graduate)?  
\_\_\_\_\_
- \*8. What is the highest level of education (in years) you have completed? (for example, high school = 12 years, college = 16 years, master's degree = 18 years)
- \*9. Which of the following statements best describes how your relationship has changed in the last six weeks?
- \_\_\_\_\_ We have become more serious.  
\_\_\_\_\_ We have stayed at the same level.  
\_\_\_\_\_ We have become less serious.
- \*9a. Describe the specific events and/or behaviors that lead you to believe this.

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