COGNITIVE, AFFECTIVE, AND BEHAVIORAL CORRELATES
OF RELATIONSHIP SATISFACTION AND COMMITMENT:
A TEST OF THE INVESTMENT MODEL
by
DUANE ALAN DOWD, B.S., M.S.
A DISSERTATION
IN
HUMAN DEVELOPMENT AND FAMILY STUDIES
Submitted to the Graduate Faculty
of Texas Tech University in
Partial Fulfillment of
the Requirements for
the Degree of
DOCTOR OF PHILOSOPHY
Approved

May, 2001
ACKNOWLEDGEMENTS

Many people have contributed in significant ways to make the completion of this project possible. I wish to acknowledge the input of my advisory committee: Dr. Jacki Fitzpatrick (chair), Dr. Judith Fischer, Dr. Duane Crawford, and Dr. Charlotte Dunham. Without their expertise, this document would not have reached its current state. I wish to acknowledge the financial support of the Graduate School of Texas Tech University, which facilitated the timely completion of the project. I also wish to acknowledge the faculty and staff of the Department of Human Development and Family Studies at Texas Tech University, with whom I have spent many years preparing for this moment.

I extend a heartfelt thank you to Gary and Susan McFarland, who have seen me through this project in more ways than they can imagine, and deserve to be applauded for their patience and temperance. I wish also to acknowledge the true victims of this dissertation: Lissa Ann, Mikel Alan, Sheraden Kay, and Lindsey Heather Dowd, who have sacrificed much without ever being asked.

Lastly, I thank my loving wife, Rochelle, who has demonstrated patience beyond the limits of human tolerance to see this project to its completion. Rochelle has agonized with me every step of the way, and has been a constant source of love and support. Rochelle holds the degree associated with this dissertation every bit as much as I do, and I am eternally grateful.
# TABLE OF CONTENTS

**ACKNOWLEDGEMENTS** ................................................................................................................... ii  
**ABSTRACT** ................................................................................................................................. vii  
**LIST OF TABLES** ......................................................................................................................... ix  
**LIST OF FIGURES** ....................................................................................................................... x  

**CHAPTER**  

I  **INTRODUCTION** ........................................................................................................................... 1  
   Purpose ........................................................................................................................................ 1  
   Social Exchange Theory and the Investment Model .................................................................. 2  
   Cognitive Factors ....................................................................................................................... 7  
   Attributions ................................................................................................................................. 7  
   Relationship Thinking ............................................................................................................... 9  
   Affective Factors ....................................................................................................................... 10  
   Empathy ..................................................................................................................................... 10  
   Optimism .................................................................................................................................... 12  
   Behavioral Factors .................................................................................................................... 13  
   Positive and Negative Socioemotional Behaviors .................................................................. 13  
   Satisfaction and Commitment ................................................................................................. 15  
   Hypotheses ............................................................................................................................... 16  

II  **REVIEW OF LITERATURE** ........................................................................................................ 19  
   Social Exchange Theory .......................................................................................................... 19
ABSTRACT

This study examined the relationships between individual characteristics and components of the Investment Model. More specifically, associations between cognitive (attributions and distressed partner thinking), affective (empathy and optimism), and behavioral (positive and negative socioemotional behaviors) factors and Investment Model components (rewards, costs, comparison level, alternatives, investments, and barriers) were tested. This study also examined whether the relationship between individual characteristics and marital quality (satisfaction and commitment) was mediated by the Investment Model components. A community sample of 226 married individuals completed questionnaires which assessed these individual characteristics, the Investment Model components and relationship quality. Factor analysis on the Investment Model components revealed a three factor solution that represented relationship benefits, detriments and hindrances. Benefits were negatively related to attributions, and positively related to optimism (for women) and positive behaviors (for men). Detriments were positively related to attributions and to distressed partner thinking (for women), and negatively related to empathic concern (for women) and to positive behaviors (for men). Hindrances were positively related to empathic concern and to negative behaviors (for women). Regression analysis indicated that the relationship between (a) attributions and quality was fully mediated for men and women and (b) empathic concern and quality was partially mediated for men by the Investment Model factors. This research provided
overall support for the mediational role of the Investment Model components, and suggested future directions for relationship research.
LIST OF TABLES

1. Summary of Hypotheses 1-8 ........................................................................79
2. Demographic Characteristics of the Sample ..............................................83
3. Distribution of Scores ..............................................................................97
4. Correlation Coefficients for Individual Characteristics, Investment Model Components and Relationship Quality .........................................................100
5. Correlation Coefficients for Individual Characteristics, Investment Model Factors and Relationship Quality .........................................................101
6. Results of Hypotheses 1-8 .......................................................................105
7. Results of Hypotheses 1-8 for Three-Factor Model .................................106
8. Regression of Investment Model Components on the Individual Characteristics (β) for Men ..................................................................................109
9. Regression of Investment Model Components on the Individual Characteristics (β) for Women ........................................................................110
10. Regression of Relationship Quality on Individual Characteristics and Investment Model Components ..............................................................111
11. Regression of Investment Model Factors on Individual Characteristics (β) for Men ..................................................................................114
12. Regression of Investment Model Factors on Individual Characteristics (β) for Women ........................................................................115
13. Regression of Relationship Quality on Individual Characteristics and Investment Model Factors ..............................................................116
LIST OF FIGURES

1. Mediational Model

2. Summary of Hypothesis 9

3. Results of Hypothesis 9 for Men

4. Results of Hypothesis 9 for Women
CHAPTER I
INTRODUCTION

Most human beings seek intimate experiences with others during their lifetimes. This desire draws individuals to the institution of marriage, as approximately 85% of the population will marry at least once (Popenoe & Whitehead, 1999). Marriage is a common experience that affects individual and family well-being (Pimentel, 2000). Many previous studies have focused on dimensions of quality, such as satisfaction and commitment. Satisfaction refers to a person’s subjective evaluation of the relationship, whereas commitment is the tendency to maintain a relationship and to feel attached to it (Bui, Peplau, & Hill, 1996). Some researchers argued that it is important to focus on how marital dynamics affect satisfaction and commitment (Hahlweg, Kaiser, Christensen, Fehm-Wolfdorf, & Groth, 2000). The research on the correlates of marital characteristics will be advanced more through the use of appropriate theoretical perspectives.

Purpose

The purpose of the current study was first to examine the relationship between individual characteristics and the Investment Model. This study examined how cognitive, affective and behavioral characteristics are associated with relationship rewards, costs, comparison level, alternatives, barriers and investments. In addition, this research sought to determine whether the relationship between individual characteristics and both satisfaction and commitment is mediated by Investment Model components.
Social Exchange Theory and the Investment Model

Social Exchange Theory provides a useful conceptual framework for studying the relationship experiences of married individuals. Originally, there were four basic components of Social Exchange Theory—rewards, costs, comparison level, and alternatives. Levinger (1976) later added the component of barriers to leaving. Rusbult and Buunk (1993) argued that the Investment Model is an extension of Social Exchange Theory and serves to highlight the mechanisms of commitment. The model also adds the factor of irretrievable investments.

The basic premise of Social Exchange Theory is that all interactions with others yield relationship rewards and costs. Rewards are defined as the "pleasures, satisfactions and gratifications" that one receives from a relationship (Thibaut & Kelly, 1959, p. 21). According to Social Exchange Theory, the greater the rewards in a relationship, the greater the satisfaction.

Negative relationship interactions are termed costs. Nye (1979) posited that costs either can consist of direct punishments (e.g., discomfort, embarrassment) or lost rewards (e.g., loss of social status, lost resources). Greater costs are associated with lower relationship satisfaction. Individuals seek relationships that maximize the rewards gained (pleasure, gratification) and minimize the costs accrued (embarrassment, effort). Individuals in relationships with greater rewards relative to costs (more profitable) will likely be more satisfied, whereas those individuals in relationships with greater costs and fewer rewards (less profitable) will likely be less satisfied (Nye, 1979).
The profitability of the relationship is not the only factor that contributes to satisfaction. An individual's satisfaction is also evaluated in light of the comparison level (Rusbult & Buunk, 1993). The comparison level (CL) is defined as "the standard against which the member evaluates the attractiveness of the relationship or how satisfactory it is" (Thibaut & Kelly, 1959, p. 21). Based on social comparison to an ideal relationship and an individual's past experience, an individual has expectations about what a relationship should be, and will be satisfied with the relationship if the characteristics meet or exceed these expectations. If expectations are not met or exceeded, the relationship will be less satisfactory.

The Comparison Level of the Alternative (Cl alt), or simply alternatives, refers to the attractiveness of relationship options (Thibaut & Kelly, 1959). Alternatives may include other potential relationships, changing the nature of the current relationship, or no relationship at all. If an individual perceives that his/her current relationship is less attractive than available alternatives, then he/she will be more committed to the relationship. If an individual's alternatives look more attractive than her/his current relationship, then she/he will be less committed.

Investments are conceptualized as those resources (time, money, emotional involvement, etc.) that one has put into a relationship (Rusbult & Buunk, 1993). When an individual puts such resources into a relationship, he/she stands to lose these resources if the relationship was terminated. Hence, the greater investments, the greater commitment and the lower likelihood that an individual will terminate the relationship.
In contrast, lower investments would be associated with less commitment and greater risk of relationship termination.

Other research on Social Exchange Theory has identified the concept of barriers to leaving (Levinger, 1976) as important to relationship commitment. Examples of barriers may be social forces that prohibit dissolution (religious or family sanctions against leaving), personal values, presence of children, or economic dependence. When barriers to leaving are high, relationships are more committed, whereas when barriers are low, relationships are less committed.

Research has provided general support for the Investment Model. Five investment factors were typically related to characteristics in the fashion the model predicts. More specifically, satisfaction was consistently found to be positively related to comparison level (Kurdek, 1995; Rusbult, 1983) and rewards (Bui, Peplau, & Hill, 1996; Farrell & Rusbult, 1981; Rusbult, 1980; 1981; 1983; Rusbult & Martz, 1995; Rusbult, Johnson, & Morrow, 1986). The research also indicated that commitment was positively related to investments and negatively associated with alternatives (Bui et al., 1996; Farrell & Rusbult, 1979; Rusbult, 1980; 1981; 1983; Rusbult & Martz, 1995; Rusbult et al., 1986). Barriers have also been found to be positively related to commitment (Kurdek, 1995). The findings for costs were not as consistent. The Investment Model posits that costs should be negatively related to satisfaction, yet this association found mixed support throughout the research (Duffy & Rusbult, 1986; Fitzpatrick & Sollie, 1999; Rusbult, 1983; Rusbult et al., 1986; Rusbult & Martz, 1995).
Repeated tests of the Investment Model across relationship status, gender/sexual orientation, and university/community samples have shown that most of its basic principles hold true. The few multi-phase studies also demonstrate some support for the predictive validity of the model over time. In sum, there is a great deal of empirical support for the Investment Model, and this evidence supports further investigation of its utility in guiding relationship research.

The advances in investment research have been limited, however, by some weaknesses or inconsistencies. Most studies, for example, have not assessed all of the components of the Investment Model. In addition, there appears to be a lack of consistency across studies in the measurement of model components. Existing measures tend to be brief (1-2 items) and global in nature, and have not assessed specific rewards, costs, alternatives or investments (Floyd & Wasner, 1994). Some community samples have been utilized, but the majority of studies have focused on the relational experiences of undergraduate students.

Further, most investment research has failed to consider how personal characteristics are associated with investment factors and relationship quality. Rusbult and Arriaga (1997) argued that one of the next developments in the field should be the analysis of the role of intrapersonal characteristics in investment processes, because emotions and thoughts create a paradigm through which relationship processes are evaluated, interpreted and responded. For example, they proposed that positive attributions promote prosocial interactions. Indeed, Rusbult and Arriaga (1997) stated that affective and cognitive characteristics "play a central role in accounting for growth
and vitality in an ongoing relationship" (p. 246). Hence, it would seem prudent to examine the associations between individual characteristics, components of the Investment Model, and relationship characteristics.

Some recent studies have supported their argument. Lin and Rusbult (1995) examined the role of personality factors in components of the Investment Model and relationship characteristics (satisfaction and commitment). They found that investment factors mediated the relationship between (a) empathic concern, perspective taking, and psychological femininity and (b) satisfaction and commitment. Fitzpatrick and Sollie (1999) also found evidence that investment factors mediated the association between personal characteristics (unrealistic gendered beliefs and unrealistic relationship specific beliefs) and relationship characteristics for women. Rusbult, Verette, Whitney, Slovik, and Lipkus (1991) evaluated the association between accommodative behavior and the components of the Investment Model. The results indicated that accommodation was positively associated with investments, satisfaction, and commitment, and negatively related to alternatives. In all three studies, personal characteristics were directly related to components of the Investment Model. Further, these factors had direct or indirect (through investment processes) associations with relationship characteristics.

The current study seeks to add to the Investment Model literature by examining the role of individual factors in investment components and relationship characteristics. Such a study will also enhance the individual differences research, which has typically examined how personal characteristics are related to satisfaction, but has failed to examine their association with Investment Model factors. Thus, this study provides the
opportunity to integrate two lines of research. Further, by examining cognitive, affective and behavioral factors, this study examines a broader range of individual factors than has previously been tested in Investment Model research. More specifically, the individual factors chosen for inclusion in this study are attributions and relationship thinking (cognitive), empathy and optimism (affective), and positive/negative socioemotional behaviors (behavioral). These factors were chosen because past research has shown that they are associated with relationship characteristics (Acitelli, 1992; Acitelli, Rogers & Knee, 1999; Bradbury & Fincham, 1990; Cate, Koval, Lloyd, & Wilson, 1995; Fincham & Bradbury, 1991; 1992; Miller & Bradbury, 1995). In addition, this study will examine whether the components of the Investment Model mediate the associations between individual characteristics and relationship characteristics.

**Cognitive Factors**

**Attributions**

The two cognitive factors which will be examined are attributions and relationship thinking. Attributions are defined as the explanations that partners make for events that occur in their relationships (Bradbury & Fincham, 1991). There are two major types of attributions. Causal attributions occur when individuals believe their partners are the source of an event (e.g., “My partner’s behavior was due to something about them”). Responsibility attributions occur when individuals believe their partners are accountable for the behavior (e.g., ”My partner deserves to be blamed for their behavior”). When individuals make causal and responsibility attributions about their partners' negative
behaviors, they explain the behavior in terms of enduring qualities of the partners, and the distress caused by the behavior will be maintained (Fincham & Bradbury, 1992).

The current study will focus on causal/responsibility attributions for negative behaviors. Such attributions have been consistently found to be associated with relationship characteristics. Research has established the relationship between these causal/responsibility attributions for negative behaviors and (a) lower satisfaction (Fincham & Bradbury, 1992; Lussier, Saborin & Wright, 1993; Madden & Janoff-Bullman, 1981), (b) greater marital distress (Camper, Jacobsen, Holtzworth-Munroe, & Schmalling, 1988; Fincham & O'Leary, 1983; Kyle & Falbo, 1985; Epstien, Pretzer & Flemming, 1991), (c) greater negative behaviors (Miller & Bradbury, 1995) and (d) increased anger (Fincham & Bradbury, 1992; Lussier et al., 1993). In a review of the literature, Bradbury and Fincham (1990) reported that across studies, (a) relationship attributions are consistently associated with satisfaction, (b) distressed spouses make attributions which increase the impact of negative events and decrease the impact of positive events, and (c) the longitudinal, clinical and experimental research suggests that attributions have a causal relationship to characteristics. As previous research has established an inverse relationship between causal/responsibility attributions for negative behavior and satisfaction, it is expected that this relationship will emerge again in the present study. In addition, this study will examine whether a similar relationship exists with commitment.

An investigation of the relationship between attributions and components of the Investment Model could reveal the nature of their association with relationship
characteristics. For example, someone who makes more causal and responsibility
attributions about their partner's negative behaviors will likely perceive the relationship
to be more costly and less rewarding, and will likely perceive their alternatives as more
attractive. In addition, attributions will likely be negatively related to the comparison
level, as one who attributes negative behavior to characteristics of their spouse will be
less likely to see their current relationship as matching their ideal relationship.

Relationship Thinking

Another type of cognition is relationship thinking, i.e., contemplating aspects of
the relationship (Acitelli, 1992). Research has established an association between
relationship thinking and satisfaction (Acitelli, 1992; Acitelli, Rogers, & Knee, 1999),
although the relationship has been found to be moderated by relational identity. As part
of a larger study on cognition, Cate et al. (1995) examined the relationship between
partner thinking (questioning the partners' motives and beliefs) and satisfaction. They
found that partner thinking was negatively related to satisfaction, and they argued that this
type of thinking is distress maintaining in nature. As such, it will be referred to hereafter
as distressed partner thinking. As previous research has established a negative
association between distressed partner thinking and satisfaction, it is expected that this
relationship will emerge for this study. In addition, this study will examine whether a
similar relationship exists with commitment.

Distressed partner thinking may be related to components of the Investment
Model. As it is a distress maintaining construct, such thinking will likely be positively
related to costs and negatively related to rewards. Distressed partner thinking may also increase the investments in the relationship, as an individual who is high in distressed partner thinking will spend increased time and emotional effort (Acitelli, 1992) in worrying about the relationship, and these represent irretrievable investments. Distressed partner thinking will likely be negatively related to comparison level, because individuals who engage in more distressed partner thinking will be less likely to see their relationship as matching their ideal.

Affective Factors

Empathy

Two affective factors which will be examined in this research are empathy and optimism. Research has demonstrated that empathy is associated with greater (a) relationship adjustment (Long & Andrews, 1990), (b) satisfaction (Rowan, Compton, & Rust, 1995), and (c) closeness (Simpson, Ickes, & Blackstone, 1995). Davis and Oathout (1987) conceptualized empathy as having three distinct dimensions. Perspective taking represents understanding another's situation, empathic concern represents sympathy and compassion for others, and personal distress refers to an individual experiencing distressful feelings (e.g., anger, frustration) in reaction to the circumstances of others. Personal distress will be referred to hereafter as empathic distress. As perspective taking is considered to be a cognitive and not an affective aspect of empathy (Davis & Oathout, 1987), it will not be included in the current research. The empathic
concern and empathic distress constructs will be used to assess the affective dimensions of empathy.

Most studies have examined the association between perspective taking and satisfaction (e.g., Rowan, Compton & Rust, 1995). Less attention has been given, however, to the association between relational characteristics and affective empathy (e.g., empathic concern, empathic distress). Davis and Oathout (1987) found that empathic concern was related to positive relational behaviors, and was indirectly related to partners’ satisfaction. In contrast, empathic distress was negatively associated with positive behaviors and indirectly associated with partners’ satisfaction. The present study will examine the relationship between (a) the two affective components of empathy and (b) satisfaction and commitment. Because empathic concern has been demonstrated to be related to positive indices of relationship functioning, it is likely that it will be positively associated with both satisfaction and commitment. In contrast, empathic distress has been found to be distress maintaining, so it is likely that it will be negatively associated with satisfaction and commitment.

The ability of a person to be empathic in a relationship will likely be associated with components of the Investment Model. Empathic concern is expected to be positively related to rewards, as those individuals who feel compassion for their partner are more likely to experience their relationships as gratifying. In contrast, empathic concern is likely to be negatively related to costs, because individuals who feel sympathy are less likely to perceive their relationships as unpleasant or aversive. It also will be associated with greater investments, as experiencing empathic concern likely involves
emotionally investing oneself in the relationship. Empathic concern would be positively related to barriers to leaving the relationship, because an individual who feels such concern for her/his partner will be less likely to want to hurt him/her by terminating the relationship.

Empathic distress is seen as a distress maintaining construct, and will likely be related to components of the Investment Model in different ways. Due to its negative affective state, empathic distress will likely be positively related to costs and negatively related to rewards. Empathic distress will also be negatively related to the comparison level, because an individual in a relationship with increased distress is less likely to see the relationship as a match to ideal expectations.

Optimism

Another affective construct which has been found to be related to relationship characteristics is optimism. Optimism is the expectation that future characteristics will be positive (Hjelle, Busch, & Warren, 1996). Optimism is a global personal factor, and is affective in nature (Schutte, Valerio, & Carillo, 1996). Research has provided some evidence that optimism is associated with relationship factors. For example, Scheier, Carver, and Bridges (1994) found that optimism was positively associated with relationship enhancing coping strategies. More recently, Dicke (1997) found that couples in which both partners were classified as optimists had more positive relationship characteristics (e.g., satisfaction, subjective well-being, commitment, conflict resolution skills) than did couples in which one or both partners were rated as pessimists. This
research provides initial evidence that optimism is related to positive relationship characteristics. Carnelley and Janoff-Bullman (1992) have argued that optimism may also be conceptualized as relationship-specific and individual’s affective outlook on their romances has consequences for current and future relationship functioning.

Given that an association between optimism and (a) satisfaction and (b) commitment has been found previously, it is expected that this relationship will emerge again in the present study. It makes sense to expect that optimism will be related to the components of the Investment Model as well. Relationship-specific optimism is likely to be related to greater rewards and fewer costs, as more optimistic individuals will likely focus on positive aspects and de-emphasize negative aspects of the relationship. It is also likely to be positively associated with investments, as an optimist will likely put more emotional effort into a relationship they see as likely to succeed. In addition, barriers to leaving will increase, as the dissolution of the relationship would represent an event that is contradictory to the expectations of an optimist. The comparison level is likely to be higher for optimists, as they may see a more positive match between their relationship characteristics and their ideals.

Behavioral Factors

Positive and Negative Socioemotional Behaviors

Another personal factor that has been found to be associated with relationship characteristics is socioemotional behaviors. In the last decade, relationship researchers have focused on interaction behaviors called socioemotional or relationship maintenance
behaviors (Weigel & Ballard-Reisch, 1999). Positive behaviors (e.g., complimenting partner) are seen as prosocial and promote the healthy functioning of the relationship. Negative behaviors (e.g., criticizing partner) are aversive and promote relationship distress (Huston & Vangelisti, 1991). A number of studies have attempted to identify those behaviors which partners use to develop and maintain their relationships (Ayres, 1993; Dainton & Stafford, 1993; Huston & Vangelisti, 1991). The use of positive behavior has been found to be associated with greater satisfaction (Huston & Vangelisti, 1991; Weigel & Ballard-Reisch, 1999), commitment and love (Weigel & Ballard-Reisch, 1999). Negative behaviors have been found to be associated with greater marital distress (Jacobsen, Follette, & McDonald, 1982) and lower satisfaction (Huston & Vangelisti, 1991). As previous research has found positive and negative behaviors to be related to satisfaction and commitment, it is expected that these relationships will be confirmed in this study.

The relationship between maintenance behaviors and characteristics would be better understood if examined through the lens of the Investment Model. It is likely that positive behaviors by an individual will contribute to a prosocial relationship climate, while negative behaviors may contribute to an aversive climate. Therefore, it seems reasonable to expect that positive behaviors will be directly related to rewards, and negatively related to costs, whereas the opposite relationships would be expected for negative behaviors. Further, an individual who perceives less attractive alternatives to the relationship will likely engage in more positive relationship maintenance behaviors in an attempt to prevent its dissolution. In contrast, an individual who perceives more
attractive alternatives to the relationship will likely engage in more negative behaviors because of a decreased need for maintenance. In addition, the more barriers that exist to the dissolution of the relationship, the less effort an individual would be required to make toward the maintenance of the relationship. Hence, greater barriers will be associated with fewer positive behaviors and more negative behaviors.

Satisfaction and Commitment

The Investment Model conceptualizes the constructs of satisfaction and commitment as unique, with separate sets of contributors predicting each relationship characteristic. Satisfaction is seen as a function of the components of rewards, costs and comparison level (Rusbult & Buunk, 1993). Within the Investment Model, commitment is seen as a function of an individual’s satisfaction with the relationship, the irretrievable investments they have put into the relationship, and their availability of alternatives should they chose to leave (Lin & Rusbult, 1995).

Past research has provided mixed results for this distinction. Rusbult (1983) found that increases in rewards were related to increases in satisfaction, but that increases in commitment were predicted by satisfaction, investments and alternatives. Similarly, Bui, Peplau, and Hill (1996) found that rewards and costs were significantly related to satisfaction, and that satisfaction, investments and alternatives were significantly related to commitment. Research on individual characteristics has found more similar patterns of association. For example, Bradbury and Fincham (1990) conducted a review of the research on attributions, and found that attributions were related to satisfaction and
commitment in similar ways. Further investigation may clarify the ways in which commitment and satisfaction are related to individual characteristics and investment components.

In sum, the Investment Model has contributed a great deal to the understanding of relationship characteristics. In addition, a second line of research has investigated how cognitive, affective and behavioral individual characteristics are associated with romantic characteristics. By examining the relationship between these individual characteristics and the components of the Investment Model, we will be able to expand our understanding of how each of these factors are associated with each other and relationship characteristics.

**Hypotheses**

Hypotheses 1 through 7 do not stipulate that relationships will exist between all of the individual characteristics and each Investment Model component. Rather, only those relationships that have a clear conceptual rationale are hypothesized. These hypotheses do not suggest causal links between the factors, but indicate possible patterns of association. More specifically, this study will test the following hypotheses:

**Hypothesis 1a:** Attributions will be negatively related to both satisfaction and commitment.

**Hypothesis 1b:** Attributions will be (a) negatively related to rewards and comparison level, and (b) positively related to costs and alternatives.
Hypothesis 2a: Distressed partner thinking will be negatively related to both satisfaction and commitment.

Hypothesis 2b: Distressed partner thinking will be (a) negatively related to rewards and comparison level, and (b) positively related to costs and investments.

Hypothesis 3a: Empathic concern will be positively related to both satisfaction and commitment.

Hypothesis 3b: Empathic concern will be (a) positively related to rewards, investments and barriers, and (b) negatively related to costs.

Hypothesis 4a: Empathic distress will be negatively related to both satisfaction and commitment.

Hypothesis 4b: Empathic distress will be (a) negatively related to rewards, and comparison level, and (b) positively related to costs.

Hypothesis 5a: Optimism will be positively related to both satisfaction and commitment.

Hypothesis 5b: Optimism will be (a) positively related to rewards, investments, comparison level and barriers, and (b) negatively related to costs.

Hypothesis 6a: Positive behaviors will be positively related to both satisfaction and commitment.

Hypothesis 6b: Positive behaviors will be (a) positively related to rewards, and (b) negatively related to costs, alternatives, and barriers.

Hypothesis 7a: Negative behaviors will be negatively related to both satisfaction and commitment.
Hypothesis 7b: Negative behaviors will be (a) positively related to costs, alternatives, and barriers, and (b) negatively related to rewards.

Hypothesis 8: Rewards, comparison level, investments and barriers will be positively related to satisfaction and commitment. Costs and alternatives will be negatively related to satisfaction and commitment.

Hypothesis 9: The association between personal characteristics and (a) satisfaction and (b) commitment will be mediated by the Investment Model components.
CHAPTER II
REVIEW OF LITERATURE

This chapter provides a review of the literature on Social Exchange Theory, Investment Model research, and individual differences research. First, a summary of the tenets of Social Exchange Theory and the Investment Model are provided. This is followed by a summary of research testing the Investment Model. The summary of individual differences research provides an overview of the factors selected for inclusion in this study (cognitive—attributions, relationship thinking; affective—empathy, optimism; behavioral—positive and negative socioemotional behaviors). Some individual factors have been studied in diverse relationships and contexts (e.g., attributions in parent-child relationships, the role of optimism in academic success), but the literature review will be limited to romantic/marital research that is most relevant to the present study.

Social Exchange Theory

Social Exchange Theory has provided a useful tool for researchers to study relationship quality and stability. First proposed by Thibaut and Kelly (1959), the basic premise of this theory is that individuals initiate and maintain relationships with others that offer sufficient benefits (Rusbult & Buunk, 1993). The four main components of Social Exchange Theory are rewards, costs, comparison level, and alternatives.

All interactions with others yield rewards and costs. Those experiences that are positive in nature are termed rewards (Nye, 1979). The concept of rewards is defined as
the "pleasures, satisfactions and gratifications" that one receives from a relationship (Thibaut & Kelly, 1959, p. 21). Nye (1979) expanded this conceptualization by arguing that rewards may include such things as social approval, security, money or physical resources, personal validation, sexual gratification, physical comfort, or the meeting of any other social or psychological needs. According to Social Exchange Theory, the greater the rewards in any relationship, the greater will be the level of satisfaction.

In contrast, negative relationship outcomes are termed costs. Costs are defined as the "factors that operate to inhibit or deter the performance of a sequence of behavior" (Thibaut & Kelly, 1959, p. 21). Nye (1979) further elaborated to say that relationship costs can consist of either direct punishments or lost rewards. Examples of costs include the loss of social status, negative/punishing/aversive interactions, negative emotions, lost resources, lack of validation, discomfort, embarrassment, or any other outcome that one might consider aversive. The greater the costs in any relationship, the lower will be the level of satisfaction.

Social Exchange Theory explains the relationship between rewards and costs in terms of relationship profit. Using a marketplace metaphor, individuals evaluate the relative rewards and costs of the relationship. If the perceived rewards are greater than the perceived costs, the result is a net profit (Nye, 1979). According to Social Exchange principles, individuals seek relationships which maximize the net profit. Individuals in relationships which yield a net profit would more likely be satisfied, whereas those individuals in relationships that are not profitable would be less likely to be satisfied.
Satisfaction is also evaluated in the context of the comparison level (Rusbult & Buunk, 1993). The comparison level (CL) is defined as "the standard against which the member evaluates the attractiveness of the relationship or how satisfactory it is" (Thibaut & Kelly, 1959, p. 21). Based on past relationship experience and social comparison with similar others, an individual has expectations about how rewarding a relationship should be. Relationship experiences at or above this comparison level are more satisfying; experiences that fall below this level are less satisfying (Nye, 1979).

Another factor which contributes to relationship outcomes is the Comparison Level of Alternatives (Thibaut & Kelly, 1959). This Comparison Level of Alternatives (hereafter simply referred to as alternatives) is the lowest level of outcomes that an individual will accept in light of other alternatives. Alternatives may include other potential relationships, changing the nature of the current relationship, or no relationship at all. Nye (1979) argued that alternatives may vary in valence (positive or negative) and permanence (length of access), so the vital issue in evaluating alternatives is the availability of options. If an individual perceives that an alternative will have better outcomes than the current relationship, then there exists the risk for dissolution (less committed). If alternatives do not offer better outcomes, the relationship will be stable (more committed).

Investment Model

Rusbult and Buunk (1993) argued that the Investment Model represents an extension of Social Exchange Theory. The Investment Model incorporates concepts from
Social Exchange Theory such as costs, rewards, and alternatives (Bui, Peplau, & Hill, 1996), but it also adds additional factors to be considered in the evaluation of relationship quality. One of these factors is barriers to leaving the relationship. According to Levinger (1976), barriers exist at all times in relationships, but are most salient when one is considering dissolution. Examples of barriers may be social forces that prohibit dissolution (religious or family sanctions against leaving), personal values, presence of and commitment to children, or economic dependence. When barriers to leaving are high, individuals are more committed to their relationships, whereas when barriers are low, individuals are less committed.

A second factor is investment size (or investments). This factor represents resources that an individual has put into the relationship that would not be retrieved if the relationship were to end (Lin & Rusbult, 1995). Examples of such investments may be self-disclosure, personal sacrifice, mutual friends, shared memories, possessions that are linked to the relationship (gifts, etc.), personal identity, cognitive interdependence, or even social norms (Rusbult & Buunk, 1993). Rusbult and Buunk (1993) asserted that the more irretrievable resources that an individual has put into a relationship, the less likely he/she will be to terminate that relationship and lose their investments. Thus, greater investments are predictive of greater commitment. In contrast, fewer investments would be associated with less commitment.

The Investment Model also extends Social Exchange Theory by clarifying the associations between investment factors and relationship quality. That is, the model specifies the ways in which investment factors uniquely contribute to satisfaction and
commitment. More specifically, satisfaction is expected to be related to greater rewards, greater \( \text{meet or exceed} \) comparison level, and fewer costs. Commitment is expected to be related to fewer alternatives, greater barriers, and greater investments.

**Empirical Support for the Investment Model**

There have been repeated tests which provide support for the Investment Model. One of the earliest experiments was conducted by Rusbult (1979). In this study, 171 undergraduate students were asked to read an essay detailing the conditions of a hypothetical relationship and to imagine they were experiencing this relationship. The characteristics of each scenario were manipulated (e.g., high cost/low alternative, low rewards, high investments) to represent a variety of relationship conditions. After reading the hypothetical scenarios, respondents rated how they would perceive the relationship quality if they experienced these conditions. The results indicated that commitment was increased when the costs were lower, available alternatives were less attractive, and investments were higher.

This provided initial support for some components of the Investment Model, Rusbult (1979) recognized it was limited by the lack of real relationship experiences, so she conducted a second study to examine students in their actual relationships. A sample of 111 students who were either currently or previously in a relationship completed a questionnaire packet assessing rewards, costs, alternatives and investment size. More specifically, respondents were given a list of rewards (e.g., partner's physical attractiveness, complimentary needs, similarity of attitudes) and costs (e.g., partner's bad
attributes, monetary costs, time constraints) and asked to assess each of these factors in their current/past relationship. Alternative outcome was assessed via four questions about best available alternatives to the relationship, as well as attractiveness of alternative persons. Investment size was assessed by examining such elements as children born in the relationship, exclusiveness, and mutual friends. In addition, respondents completed a brief measure of satisfaction and commitment.

The results indicated that rewards and costs were significant predictors of satisfaction. Commitment was regressed on the investment factors and results indicated that investment size, satisfaction and alternatives best predicted relationship commitment, and that the deletion of any one of the variables significantly lowered the explained variance. These findings demonstrate that these factors do play a central role in actual experiences of romantic relationships.

Sedikides, Oliver, and Campbell (1994) examined differences in how male and female undergraduates value relationship costs and rewards. In the first of a series of three studies, a sample of 129 students completed open-ended surveys asking them to identify the costs and rewards of their relationships. In the second study, these responses were then rank ordered for importance by a separate sample of 200 undergraduates. In the third phase, another sample (n=200) ranked their perception of the importance of each item. The results from study three indicated that both men and women viewed companionship, happiness, and love as important relationship rewards. Sexual gratification was viewed as rewarding for men only, whereas women valued intimacy, growth, self-understanding, and self-esteem. Men more often viewed stress, worry, social
sacrifices, and monetary loss as relationship costs, whereas costs for women were loss of identity and loss of innocence. One weakness of this study is that it is not clear whether respondents ranked the items in reference to their own relationship or relationships in general. Overall, these findings suggest that there are gender differences in the way costs and rewards are perceived, which may have an impact on relationship dynamics.

The components of the Investment Model have been examined beyond the confines of undergraduate romantic relationships. For example, Rusbult (1980) examined the components in friendships. Using a similar sample and method as in her previous study, respondents (n = 114 undergraduate students) completed a questionnaire on the Investment Model factors in reference to a past or current friendship (same-sex or cross-sex). The findings indicated that satisfaction was positively related to rewards and negatively related to costs. Greater commitment was associated with greater satisfaction, greater investments, and fewer alternatives. A comparison of this study and the study on romantic relationships (Rusbult, 1979) indicated that rewards, costs, investment size, and alternatives were significant predictors of quality in both cases, however these investment components were stronger predictors for romantic relationships.

These early studies provided some support for the Investment Model. All three studies, however, were conducted with undergraduate students, which limits the generalizability of the findings. A more diverse sample was utilized in a study conducted by Rusbult, Johnson, and Morrow (1986). They tested the Investment Model with a sample of community members in diverse relationships (e.g., dating, married). Respondents were randomly selected from a phone book, and surveys requesting
participation were sent to their homes. A total of 209 participants responded by completing questionnaires about how the components of the Investment Model (relationship costs and rewards, satisfaction, alternatives, investments, and commitment) were related to their current dating or marriage relationship. Consistent with the model, rewards were related positively to satisfaction, and commitment was significantly related to investment size, satisfaction and alternatives in the hypothesized directions for all groups.

There were, however, some group differences which did not support the Investment Model. A negative relationship between costs and satisfaction was expected, but did not emerge for all subgroups. A weak association between costs and satisfaction emerged for most groups, but this association did not emerge for males, individuals in dating relationships (daters), or those in long-term relationships (10 or more years). Also, it was expected that investments would be positively related to commitment, but this relationship was not found for daters, younger persons, and persons in long-term relationships. Rusbult et al. (1986) concluded that these results are consistent with the undergraduate studies and "demonstrate the generalizability of the model across a wide range of close relationships" (p. 87). Even though some principles of the model were supported, costs and investments did not consistently contribute to relationships as expected.

Rusbult and Martz (1995) tested the Investment Model with another community sample, namely 100 women who sought refuge at a battered woman's shelter. Respondents completed a questionnaire evaluating components of the Investment Model
in their relationship. The questionnaire was tailored to the unique circumstances of battered women's relationships. So, commitment was operationalized as dedication to the relationship and intention to stay with the relationship partner; alternatives were measured as exiting resources (e.g., education, money, family support) and comparison level was conceptualized as family of origin abuse as a standard for relationship expectations.

Respondents completed questionnaires while in the shelter and then follow-up contacts revealed whether the women actually stayed in the relationship over time. The findings showed that satisfaction, investment, and alternatives were related to commitment in the predicted directions and commitment mediated the relationship between the investment components and relationship stability. Comparison level did not contribute to the quality, but this lack of association may be due to the unique way in which this factor was measured in this study. The Investment Model was partially supported because commitment was related to investment size and alternatives, suggesting that the model might be generalizable to these relationship conditions.

The studies previously described have focused primarily on heterosexual romantic relationships. Duffy and Rusbult (1986) extended previous work by testing the Investment Model for heterosexual and homosexual individuals. A sample of 25 heterosexual men, 25 heterosexual women, 25 gay men and 25 lesbian women completed a questionnaire assessing the components of the Investment Model. Women (whether in heterosexual or homosexual relationships) reported more investments and commitment than men. Also, the relationship between costs and satisfaction was stronger for women
than for men and costs were greater for heterosexuals than for homosexuals. Overall, the
model found some support through this study, although the relationship between costs
and satisfaction showed mixed support. Some group differences emerged, but gender
differentiated the groups more so than sexual orientation (Duffy & Rusbult, 1986).

In similar research, Kurdek (1995) studied 61 gay, 42 lesbian, 90 married couples,
and 95 heterosexual dating couples using the Multiple Determinants of Relationship
Commitment Inventory (MDRCI), which assesses all components of the Investment
Model. The findings showed that commitment was positively related to rewards,
comparison level, investments and barriers, and negatively related to costs and
alternatives for all four groups. In addition, commitment for dating couples was lower
than for gay, lesbian and married couples. Overall, these two studies indicated that the
Investment Model is a viable conceptual framework for research on both heterosexual
and homosexual relationships.

The previous research has shown the Investment Model to be a useful tool for
exploring interpersonal relationships. This research has been typically limited, however,
by a reliance on cross-sectional designs. A few multi-phase studies have addressed this
limitation, and provided partial support for the Investment Model when tested over time.
Lund (1985) conducted a test of the role of investments, rewards, commitment, and love
in relationship stability. The respondents (n=129 undergraduates) in diverse relationship
types (casual dating, serious dating, exclusive dating, engaged, and married) completed a
questionnaire on two occasions over a six-month period. Rather than a global measure of
investment factors, Lund asked a series of specific questions assessing the extent to which
an individual has contributed investments (e.g., sharing something of sentimental value, spending free time) or rewards (e.g., attractiveness, compatibility).

The analysis of these relationships over time indicated that higher investments at time 1 were positively related to higher levels of commitment at time 2. In addition, discriminant analysis indicated that the investments and commitment at time 1 best predicted whether the relationship had dissolved by time 2. Love was related to commitment at time 1, but neither love nor rewards significantly predicted relationship stability. These results support the role of investments in determining commitment over time, and demonstrate the validity of these two factors in predicting dissolution.

These findings supported Rusbult and Buunk's (1993) argument that investments are predictive of commitment and relationship stability. This research, however, does not provide more extensive support for the model because it only assessed two (investments, rewards) components.

Rusbult (1983) conducted a more comprehensive longitudinal test of the model. A sample of 34 undergraduate students currently in romantic relationships were administered surveys that measured rewards, costs, alternatives, comparison level, investments, satisfaction and commitment every 17 days for seven months. The analysis partially supported the Investment Model, in that trend analysis indicated that increases in satisfaction were accompanied by increases in rewards, but were not associated with changes in costs. In addition, increases in commitment were accompanied by increases in investments and satisfaction, as well as decreases in available alternatives.
Rusbult also examined group differences between those who stayed in their relationships during the study and those who terminated their relationships. The stable group demonstrated increases in rewards, costs, satisfaction, investments, and commitment as well as decreases in alternatives over time; the opposite trend occurred for the terminated group. By examining the factors at multiple times of measurement, this study provided one of the most stringent tests of the Investment Model. Similar to Lund (1985), this research provides general support for the associations between investments and (a) relationship quality and (b) stability. In contrast to Lund (1985), this study assessed all investment components, and (with the exception of costs) found support for the principles of the Investment Model.

The past research has provided general support for the Investment Model. Four investment factors were typically related to quality in the fashion the model predicts. Rewards and comparison level were nearly universally related to satisfaction, though rewards were most often tested. The research consistently indicated that investments and alternatives were positively associated with commitment as well. Only one study (Kurdek, 1995) evaluated barriers to leaving, and barriers were positively related to commitment, as expected. The findings for costs were not as consistent. The Investment Model posits that costs should be negatively related to satisfaction, yet this association was found in only a few of the studies. Other studies found no such relationship, or found it to be moderated by gender group. Clearly, further testing of the investment principles is warranted.
Personal Characteristics Related to the Investment Model

To date, most of the research has examined components of the Investment Model with little consideration of how personal characteristics contribute to these relational processes. Rusbult and Arriaga (1997) stated that one future direction for investment research is the examination of intrapersonal characteristics. Indeed, they argued that intrapersonal events such as cognitions and emotions are inseparable from relationship experiences. Thus, individual characteristics are important because they might contribute to relationship quality as well as specific perceptions of investment factors (Rusbult & Buunk, 1993).

For example, Lin and Rusbult (1995) examined the role of personality factors in relationship commitment via the investment components. A sample of 285 undergraduate students completed a questionnaire about their most serious cross-sex friendship or romantic relationship. The questionnaire assessed dispositional factors (e.g., self-esteem, femininity, empathic concern, perspective taking, and partner perspective taking) as well as components of the Investment Model, satisfaction, and commitment. Commitment was found to be positively correlated with empathic concern, partner perspective taking, and psychological femininity. Regression analysis indicated that these personal characteristics were indirectly related to satisfaction. More specifically, femininity was positively related to investments and comparison level, each of which were positively related to satisfaction. In addition, perspective taking was positively related to comparison level, and self-esteem was negatively related to comparison level, which was in turn related to satisfaction. The negative association
between perceived alternatives and commitment was stronger in dating relationships than in friendships. These results provide some initial evidence that personality may affect relationship quality through their association with Investment Model factors.

A study by Fitzpatrick and Sollie (1999) examined the associations between cognitive factors, investment factors, and relationship quality. They assessed the role of unrealistic gendered beliefs and unrealistic relationship specific beliefs in the components of the Investment Model. This research surveyed a sample of 254 undergraduate students who were currently in romantic relationships. In addition to measuring the components of the Investment Model (costs, rewards, comparison level, satisfaction, alternatives, barriers, investments and commitment), respondents were given measures that assessed their unrealistic beliefs about gender relationships (i.e., men and women are mysteries to each other), as well as measures assessing unrealistic relationship-specific beliefs (i.e., one cannot accept it when a partner disagrees with him/her).

Partial correlations (controlling for relationship length) indicated that, for females, unrealistic gendered beliefs and relationship specific beliefs were associated with more alternatives, lower comparison levels and lower commitment. Multiple regression analysis for males indicated that unrealistic relationship specific beliefs were associated with greater costs and greater alternatives; these beliefs were not related to men's commitment. For women, however, a mediating relationship was identified. Both types of unrealistic cognitions affected the investment factors, which in turn affected satisfaction and commitment. This research supports the importance of examining
personal characteristics and how they influence relationship commitment through the investment factors.

The previous studies examined personality and cognitive factors, but another study examined the role of behavior in the Investment Model. Rusbult, Verette, Whitney, Slovik, and Lipkus (1991) evaluated the association between investment factors and accommodative behavior. Accommodative behavior refers to an individual's ability to act in a positive and constructive way toward a relationship partner, even if the relationship partner acts destructively toward them (changing oneself, discussing problems, seeking help). This research used a sample of 498 undergraduates to test the relationship between accommodative behavior and (a) the components of the Investment Model, and (b) other individual characteristics (masculinity, femininity, self-esteem, perspective taking, cognitive rigidity, and Machiavellianism). Accommodative behavior was related to partner perspective taking and femininity. The results indicated that accommodation was also positively associated with investments, satisfaction, and commitment, and negatively related to alternatives.

The strong support for the usefulness of the Investment Model in understanding satisfaction and commitment provide validity for its use. The research on personal characteristics is still very scant, but there is initial evidence that such factors can play an important role in investment processes, which in turn affect satisfaction and commitment. Such findings suggest the need for further investigation of the associations between other personal characteristics, investment processes, and relationship quality.
These initial studies which have investigated personal characteristics in relation to the Investment Model have provided further insight into relationship dynamics. This research has been limited, however, by a reliance on undergraduate samples. Rusbult and Buunk (1993) argued that investment factors will be related to individual factors in different ways at different time periods in relationships. Thus, an examination of personal and investment factors in a marital context will expand the knowledge about the ways in which such factors are associated with one another as well as relationship quality. This weakness of past Investment Model research will be addressed in this study, in that the relationship between individual level and Investment Model factors will be examined using a community sample of married individuals.

In addition, the individual differences literature has identified numerous factors which are associated with relationship quality, but few of these factors have been integrated into Investment Model research. Fitzpatrick and Sollie (1999) argued that investment research should address a broader range of personal components in order to clarify the patterns which contribute to relationship quality. This research seeks to address this weakness by adding to the list of cognitive, affective, and behavioral factors that have been examined in reference to the Investment Model. Such expansion will add to the understanding of the relationship between Investment Model components and personal characteristics specifically, and to the understanding of relationship dynamics in general.
Relationship Attributions

In discussing future directions for research on the Investment Model, Rusbult and Arriaga (1997) argued that the role of cognition should be more thoroughly examined. One of the most frequently studied types of cognition in marital relationships is attributions. Past research has consistently shown that attributions are associated with relational behaviors and quality (e.g., Baucom, Epstein, Sayers, & Sher, 1989).

Fincham and Bradbury (1991) defined attributions as the explanations that partners make for events that occur in their relationships. There are two major types of attributions (Fincham & Bradbury, 1992). Causal attributions occur when an individual believes his/her partner to be the source of an event, whereas responsibility attributions occur when the individual believes her/his partner to be accountable for the behavior. Causal and responsibility attributions are classified along three dimensions. The first dimension, locus, refers to the extent to which the source of behavior is viewed as existing within the partner's control. Stability refers to the extent to which source of the behavior is viewed as unchanging. Globality refers to the extent to which the source of the behavior affects other areas of the relationship.

Attributions develop as an individual views her/his partner’s behavior, and make assumptions about his/her partner based on the patterns of behavior. All partner subsequent actions will be understood in terms of the individual’s assumptions about her/him. For example, one may believe that the partner is a cruel and uncaring person (a negative stable attribution). When this partner forgets to complete a household task, the individual is more likely to attribute the behavior to internal characteristics of the partner.
If, on the other hand, the individual believes that her/his partner is caring and considerate (a positive stable attribution), she/he is more likely to attribute the same behavior (forgetting a household task) as a consequence of circumstances external to the partner (locus), having little impact on the relationship (not global), and being controlled by a temporary (unstable) state (e.g., couldn't get home on time).

Bradbury and Fincham (1990) argued that relationship satisfaction is influenced by attributions. Satisfaction is lower (a) when negative behaviors are seen as a result of the partner's enduring characteristics, and (b) when positive behaviors are viewed as less internal and less positive in intent. In contrast, satisfaction is greater (a) when positive behaviors are viewed as the result of the partner's characteristics and (b) when negative behaviors are viewed as external, and not guided by intent. Collectively, attributions for partner behavior which serve to increase satisfaction are termed relationship enhancing, whereas those that decrease satisfaction are termed distress-maintaining (Bradbury & Fincham, 1990). Indeed, much research on attributions utilizes the degree of distress as the indicator of relationship quality.

In the 1980s, Fincham and Bradbury (1991) systematically conducted a series of studies on attributions and reported the following trends. First, compared to nondistressed spouses, distressed spouses tended to view positive partner behavior as less global and negative partner behavior as more global. Second, distressed spouses were more likely to attribute marital difficulties to the relationship and partner's disposition (locus) than to themselves. In contrast, non-distressed spouses saw positive partner behavior as more stable and unselfish. Third, an examination of wives' attributions...
detected a bias pattern, such that distressed wives tended to make more self-enhancing attributions, whereas their nondistressed counterparts tended to make more partner-enhancing attributions. Fourth, wives' global, stable, dispositional (locus) negative attributions for husband behavior were negatively related to marital satisfaction over time; a similar pattern did not emerge for husbands. Fifth, a relationship between attributions and marital behavior was found among distressed spouses. This association was demonstrated to be causal, such that negative attributions were more likely to result in negative behaviors toward the spouse (no such relationship was found among nondistressed spouses). This program of research demonstrates the salience of attributions in relationship processes.

In their review of all attribution research, Bradbury and Fincham (1990) reported that other studies supported their findings. In addition, they concluded that (a) attributions are consistently related to satisfaction and (b) the longitudinal, clinical and experimental research suggests that attributions have a causal relationship to quality. Given the redundancy across studies, this literature review will summarize a sampling of early studies, as well as more recent developments in the field.

The attribution-satisfaction association was examined in research conducted by Madden and Janoff-Bullman in 1981. Thirty-two married women completed questionnaires assessing satisfaction, and were interviewed about their own perceptions of the causes of two real and two hypothetical conflicts with their spouses. The researchers divided the women in two groups: those who blamed themselves more than their husbands and those women who blamed their husbands more than themselves. In
comparison to the first group, the wives who blamed husbands more than themselves were more likely to be unsatisfied in their marriages. This research provided initial support for attribution principles for wives, but does not address the role of attributions in husbands' relational experiences.

Kyle and Falbo (1985) explored the attributions of both husbands and wives. Spouses (n=61 couples) completed questionnaires assessing self and partner attributions for hypothetical marital conflicts. The sample was divided into groups of nondistressed spouses (not seeking therapy) and distressed spouses (seeking therapy). Attributions for partner behavior were rated on a single six-point scale ranging from "extremely situational" to "extremely dispositional." The results indicated that nondistressed spouses tended to attribute their partners' positive behaviors to dispositional characteristics more than distressed spouses. In addition, nondistressed spouses attributed more of their own positive behaviors to dispositional characteristics than distressed spouses. In considering their own negative behaviors, nondistressed spouses made more situational attributions. These findings are consistent with causal attributions, as the respondents identified the source of marital behavior. Supporting the general principles, it is not surprising that nondistressed spouses made more relationship-enhancing and fewer distress-maintaining attributions.

Fincham and O'Leary (1983) examined specific dimensions of attributions. They developed a multi-item measure of attributions that included dimensions of stability (whether the attribute was likely to change), globality (whether it affected other areas of the relationship) and control (whether the partner can control their behavior). Sixteen
married couples in therapy and an undisclosed number of nondistressed couples, completed the questionnaire in reference to hypothetical (positive and negative) situations. The findings indicated that nondistressed spouses perceived the causes of positive behaviors to be more controllable and global than distressed spouses. In contrast, distressed spouses perceived negative behaviors to be more controllable and global than nondistressed spouses. These findings provided support for the measure and highlighted the importance of examining attribution dimensions.

One limitation of this early research was that attributions were often assessed in reference to hypothetical situations. More recently, there has been a greater emphasis on examining attributions in the context of ongoing marital dynamics. For example, Camper, Jacobsen, Holtzworth-Munroe, and Schmalling (1988) sought to replicate previous findings by studying couple conflicts. Distressed and nondistressed (distinguished by DAS scores) couples were videotaped while engaging in a problem-solving task focused on a real issue in their relationships. Then spouses individually viewed the tapes and completed a written description of attributions for the spouses' ratings of the same interaction. Independent raters then content coded the written statements to identify types and dimensions of attributions. These ratings indicated that, compared to nondistressed spouses, distressed spouses were more likely to make global and stable attributions for partner negative behaviors and less likely to make global and stable attributions for partner positive behaviors. Spouses across distress conditions tended to see positive behaviors as more controllable and voluntary than negative
behaviors. This research emphasizes the importance of studying attributions in the context of actual behaviors in the relationship.

The association between attributions and actual (rather than hypothetical) behaviors was further examined in two studies conducted by Bradbury and Fincham (1992). In the first study, they utilized a task similar to Camper et al. (1988), but investigators rated videos for effectiveness of problem-solving skills. In addition, the sample of married couples (n=47) completed questionnaires which assessed marital satisfaction, marital problems, and the types and dimensions of attributions. The results indicated that more negative causal and responsibility attributions were associated with less effective problem solving, particularly for wives. Study 2 examined the relationship between attributions and the quality of partner behaviors (avoidant, positive, and negative). Using the same method for a sample of 40 couples, they found that both husbands and wives exhibited more negative behaviors when more negative causal and responsibility attributions were present. Some gender differences emerged as well. More specifically, wives' positive behaviors were inversely related to negative attributions. When satisfaction was examined, it was found that the relationship between attributions and behaviors was stronger for distressed wives than nondistressed wives.

Miller and Bradbury (1995) examined the association between attributions and another type of marital behavior, namely social support. Sixty newlywed couples completed a questionnaire assessing marital adjustment and attributions. In addition, couples' behaviors were coded while they participated in a social support activity during lab sessions. They found that negative responsibility attributions were related to higher
negative behaviors for wives. Further, negative causal attributions were related to negative reciprocity (the tendency to reciprocate negative behavior) for wives, and to the tendency to respond negatively to neutral behavior for husbands. Overall, these studies indicate that attributions are associated with both marital behaviors and marital quality. The association between attributions and relationship quality (satisfaction, distress) has found significant empirical support. Much research, however, has been limited by global (e.g., Madden & Janoff-Bullman, 1981) and single-item (Kyle & Falbo, 1985) measures of attributions. These limitations were overcome by a recent trend in the development of attribution questionnaires.

For example, Epstein, Pretzer, and Fleming (1991) created the Marital Attitude Survey (MAS), to assess several dimensions of attributions. The questionnaire was completed by a community sample of 156 distressed and nondistressed respondents, (delineated by DAS scores and therapy status). The subscales of the MAS included: (a) spouse's lack of love, (b) spouse's malicious intent, (c) causality to spouse's personality, (d) causality to spouse's behavior, (e) causality to own personality, (f) causality to own behavior, (g) expectancy of improvement in relationship, and (h) ability to change relationship. With the exception of the own behavior subscale, all other subscales discriminated between distressed and nondistressed couples. More specifically, for both males and females, satisfaction was positively associated with ability to change relationship and expectancy of improvement, and negatively related attributions of (a) causality of own personality, (b) causality to spouses' behavior, (c) causality to spouses' personality, (d) malicious intent of spouse, and (e) lack of love of spouse. In
addition, multiple regression analysis indicated that the subscales were uniquely related to satisfaction. This research further supports the association between attributions and relationship quality, and provides some validation for the multidimensional measure of attributions.

Fincham and Bradbury (1992) developed another questionnaire titled the Relationship Attribution Measure (RAM). This measure assesses both causal and responsibility attributions. They examined dimensions of causality (locus, globality, and stability) and responsibility (intent, motivation, blame) and reported that the dimensions were associated with relational factors in a manner consistent with the composite scales. Therefore, the findings for the composite causal and responsibility measures will be reported. They conducted three studies of married couples, and reported that for wives only, responsibility attributions were associated with more anger. For both husbands and wives, they found that (a) causal and responsibility attributions were negatively related to satisfaction, (b) causal attributions were positively related to anger, (c) responsibility attributions were positively related to whining, and (d) responsibility attributions mediated the relationship between causal attributions and anger. These studies provided support for both the psychometric properties of the measure and the principles guiding attribution research.

Similarly, Lussier, Saborin, and Wright (1993) integrated results from previous studies to formulate a model predicting that causal attributions determine responsibility attributions, which in turn contribute to blame for the partner. Additionally, they predicted that blaming the partner, but not causal or responsibility attributions, directly
affected marital quality. A sample of 206 cohabiting or married couples completed a questionnaire that assessed satisfaction as well as causal, responsibility and blame attributions for actual relationship conflicts. The results from structural equation modeling supported the predicted mediation: causal attributions led to responsibility attributions, which led to blame, which in turn was negatively related to satisfaction. Together, the Bradbury and Fincham (1992) and Lussier et al. (1993) studies highlight the potential process by which attributions may affect relationship quality, demonstrating a link from cause to blame to anger to dissatisfaction, or from cognition to affect to outcome. This not only demonstrates the need to evaluate the types of attributions, but provides evidence for the nature of the relationship between the types.

Baucom et al. (1996) examined the associations between attributions, cognitive and affective factors, and relationship quality. A sample of married couples (n=241) completed a questionnaire assessing attributions, satisfaction, negative affective states (e.g., depression, anger) and standards (cognitions about boundaries, power, task-oriented investments, and expressions of caring). Individuals indicated what relationship standards they held, as well as whether they believed those standards were met in their relationships. Negative causal attributions were related to more (a) unmet standards and (b) negative affective states. Further, both attributions and standards contributed to marital satisfaction. They concluded that standards and attributions represent distinct cognitive processes which uniquely contribute to relationship functioning.

In sum, the literature provides compelling evidence that attributions are associated with relationship dynamics and quality. There have been advances in the understanding
of attributions, but the field has been limited by a lack of integrative theory to guide research (Bradbury & Fincham, 1991). The present study addresses this limitation by integrating investment and attribution research. In addition, the present study will test Bradbury and Fincham's (1991) recommendation the future research should examine factors that might mediate the relationship between attributions and satisfaction.

**Relationship Thinking**

Another type of social cognition which has appeared in the literature recently is relationship thinking. This represents an individual's contemplation about his/her relationship (Acitelli, 1992). Relationship thinking is a unique form of cognition that has historically received little attention in individual differences research.

Traditionally, much cognition research has focused on irrational beliefs (e.g., Moller & Van Zyl, 1991) or idealized thoughts/positive illusions (e.g., Murray & Holmes, 1999). These factors represent the extremes of social cognition and may tell us little about a more normative range of relationship thought. The research on selective attention focuses on the perceptual discrepancies between spouses or between self-report/objective observations and presumes that this selectiveness reflects individual biases in relationship assessments (e.g., Baucom, Epstein, Sayers, & Sher, 1989). Both selective attention and attribution focus more on cognitive processes (e.g., the ways in which individuals think) than cognitive content (e.g., what individuals think). Other researchers have pursued an understanding of assumptions or standards, but this work has been limited by inconsistent measurement of general and relationship-specific beliefs.
(e.g., Baucom & Epstein, 1990; Baucom, Epstein, Rankin, & Burnett, 1996). In contrast to these types of social cognitions, relationship thinking represents content-based, specific, normative (i.e., not extreme) cognitions about one's relationship.

According to Fincham and Beach (1999), the continued assessment of cognitive content makes an important contribution to marriage research. Indeed, Cate et al. (1995) argued that relationship thinking contributes to interpersonal processes because when an individual reflects on her/his own relationship, she/he is allowed to observe one's own behavior, gather information about others, and plan future intimate interactions. Past research has shown that relationship thinking has been associated with patterns of interaction and relationship quality (Acitelli et al., 1999; Cate et al., 1995).

Martin (1991) investigated the complexity of relationship thinking, arguing that greater complexity, such as the ability to think abstractly, should allow an individual more effectively to comprehend relationship experiences, and react with more appropriate behavioral responses. Martin tested the Relational Cognition Complexity Instrument (RCCI), a measure designed to assess an individual's level of abstraction and sophistication in thinking about his/her relationships. Undergraduates (n=109) completed questionnaires on two occasions in which they were asked to write descriptions comparing and contrasting three of their own personal relationships (friend, partner, family member). The written statements were content coded into seven relational constructs: interaction patterns ('we goof off a lot'), partner comparisons ('I am more outgoing'), relationship qualities ('it's a loving relationship'), relationship history ('it started slowly'), relationship future ('we'll stay together') partner qualities ('very
intelligent’) and other statements. A differentiation score was obtained by summing the total number of relational thoughts written during the time period allowed.

Results indicated that complexity scores were significantly higher for women than for men, but there was no relationship between RCCI scores and relationship length. In addition, the RCCI demonstrated discriminant validity from the RCQ (Crockett, 1965) a similar measure designed to assess personal cognitions about others with whom one shares a relationship. The RCQ measures thinking about other individuals (e.g., My friend is a good person) rather than thinking about relationships (e.g., My friend and I get along well). This research demonstrated that relationship thinking may be distinct from cognitions about relationship partners.

Martin (1992) next tested the validity of the RCCI with a sample of 38 married couples. Respondents completed a survey in which they ranked eight typical marital problem areas for personal salience, and also completed the RCCI in reference to three close relationships (a romantic relationship, a family member and a friend). Respondents were asked to tape record their at-home conversations about two of the relationship problems and mailed the tape recordings to the researchers. Recordings were content coded for specific communication behaviors (redundancy, dominance and symmetry). Results indicated that RCCI scores were not related to dominant or submissive communication patterns. The male partners’ cognitive complexity scores were positively associated with mutual support and transactional redundancy (indicating that couples had developed a specific conflict management style). No relationship was found between communication behaviors and female’s complexity.
Although this research provides some evidence of the importance of relationship thinking, it should be noted that the conceptualization and measurement of the construct have not been consistent. The RCCI categorizes responses in terms of a hierarchy of abstraction (intended to represent increasing cognitive complexity), but the calculation of the differentiation score (which was used in analysis) represents the total quantity of thoughts without taking into account the quality. This has the effect of measuring the amount of relationship thinking, as opposed to the complexity. It may be more accurate to conclude that women engage in more thinking than men, but quantity is unrelated to women's communication. In contrast, men's quantity of thoughts is related to routinized patterns of communication behaviors.

Some research has explicitly focused on the quantity of relationship thinking. Acitelli (1992) measured the frequency of stated relationship thoughts, as she argued that relationship talk is a valid measure of thinking. Couples married 2-4 years (n=42) were asked general open-ended relationship questions (e.g., "How did you first meet?") during recorded interviews. Statements that were indicative of relationship interaction patterns (e.g., "I've become more assertive because she has been teaching me to be"), and partner comparisons/contrasts were content coded as relationship thinking by the author. In addition, spouses completed questionnaires assessing marital satisfaction and stability. The results suggested that women spent more time expressing relationship thoughts than men. Also, husbands' relationship thinking was positively associated with wives' marital satisfaction, whereas wives' thinking was not related to self or husbands' well-being. A comparison of wives' experiences indicated that the relationship between thinking and
satisfaction was stronger for wives who talked less during the interview. Both Acitelli (1992) and Martin (1992) concluded that their findings support a general "husband hypothesis" (Martin, 1992, p. 161) in the literature, suggesting that relationship quality is more strongly tied to the cognitive characteristics of men, due in part to women's socialization to adapt to their male partners' unique qualities.

The concept of relationship thinking was further refined by Cate, Koval, Lloyd and Wilson (1995). In a series of five studies, Cate et al. developed a questionnaire which assesses different types of relationship thinking. In study 1, a sample of 190 undergraduates were asked to write what they thought about when they spent time thinking of their dating relationships. Their responses were content analyzed, and a Likert-type item was created for each content area identified. In study 2, students responded to these 62 content areas. Factor analysis revealed that 15 of the items loaded significantly on four factors: partner thinking, positive affect, reminiscent thinking, network thinking. Distressed partner thinking represents an individual’s questioning the relationship, and is seen as distress maintaining. Positive affect reflects the person’s thoughts about affection and reminiscent thinking focuses on positive thoughts about relationship history; both types of thinking are seen as relationship-enhancing in nature. Network thinking represents thoughts about the quality of interactions with friends and family.

Studies 3 and 4 sought to confirm the factors using only the 15 items identified from study 2 on two additional samples. Undergraduates completed questionnaires that assessed individual characteristics related to relationship thinking (e.g., attributions,
romanticism, conflict), as well as satisfaction. Factor analysis was conducted to
determine the factor structure of the relationship thinking items. In contrast to study 2,
only three factors appeared: distressed partner thinking and network thinking were
identical to those identified in study 2, but a third factor emerged which represented a
combination of affect and reminiscent thinking (this factor was named affect).

Additional results indicated that females engaged in more positive affect
(relationship enhancing) and partner (distress maintaining) thinking than did males, but
there were no gender differences for network thinking. In examining the personal
characteristics, greater positive affect thinking was related to greater private self-
consciousness, romanticism, interpersonal orientation, and satisfaction. Higher levels of
partner (distress maintaining) thinking were related to (a) greater interpersonal
orientation, (b) lower satisfaction, and (c) greater conflict. Network thinking was
positively related to conflict in only study 3. Multiple regressions indicated that partner
and affect thinking accounted for variance in satisfaction above the personal
characteristics and dispositions measures, and that network thinking was not a significant
predictor of satisfaction. Given that relationship thinking uniquely predicts satisfaction
when compared with other individual characteristics and global relational dispositions,
Cate et al. (1995) argued that such thinking merits further investigation in reference to
other important relationship dynamics.

To assess behavior in study 5, undergraduates (n=82) completed the Rochester
Interaction Record for a single ten minute interaction with a partner. More specifically,
they rated levels of positivity, negativity, intimacy, self-disclosure, satisfaction with the
interaction, conflict and feelings. From these ratings, two general indices of positive and negative interactions were compiled. Results indicated that positive affect thinking was related to perceptions of more positive interactions, but unrelated to negative interactions. Partner (distress maintaining) thinking was positively related to perceptions of more negative interaction, but unrelated to positive interaction. This research supported previous studies that indicated that relationship thinking may be a salient factor in interpersonal processes.

Acitelli, Rogers, and Knee (1999) examined the extent to which relational identity (the tendency to see oneself in relation to others in general) and couple identity (the tendency to see oneself as part of the specific relationship) moderated the association between relationship thinking and satisfaction. A sample of 238 couples (90 unmarried and 148 married) completed interviews during which the following factors were measured: positive affect thinking, relational/couple identity and satisfaction. The interviews were repeated 1.5-2 years later. Similar to other studies, women reported thinking more about their relationships and had stronger relational and couple orientations than men. For unmarried couples, relational identity emerged as a moderator, such that the association between positive relationship thinking and satisfaction was stronger when individuals had a more relationship oriented identity. Couple identity had a moderating effect for married couples. Satisfaction was more strongly associated with positive thinking for those with low couple identity. Acitelli et al. (1999) argued that high couple identity might reach a ceiling effect and positive thoughts do not add substantially to satisfaction at this point. Longitudinal analysis
indicated that positive relationship thinking increased satisfaction over time for women and for men with stronger relational identities. The researchers concluded that there exists a confluence of individual, cognitive and relational factors such that (a) positive cognitions imply relationship-specific satisfaction to those with general relational identities and (b) being married enhances the capacity of positive cognitions to bolster satisfaction for individuals with weak couple identities.

According to Cate et al., (1995), "the study of relationship thinking is definitely in its infancy" (p. 92). A small number of studies have been conducted on this type of social cognition in this decade. These studies have varied in method and measurement, but they consistently provide evidence that such content-based relationship thinking is associated with relational processes and quality. Baldwin (1995) argued that a greater integration of social cognition and relationship research would be beneficial to the close relationships field. Consistent with this argument, the present study provides an integration of investment and cognition research.

Optimism

An attitude of optimism is conceptualized as a generalized expectation for positive future outcomes, and refers to one's global life orientation. Individuals with an optimistic orientation tend to hold positive expectations for the future, whereas those with a pessimistic orientation hold negative expectations (Hjelle, Busch & Warren, 1996). Most optimism research has focused on the relationship between optimism and physical/emotional well-being (Schutte, Valerio, & Carrillo, 1996).
Scheir, Carver, and Bridges (1994) conducted two studies to examine the nature of optimism. Study 1 tested the relationship between optimism and (a) depression and (b) coping. A sample of 4,309 undergraduates completed questionnaires assessing optimism, depression, and coping, as well as personal characteristics (e.g., neuroticism, self-mastery, self-esteem, and trait anxiety). Optimism was measured using the Life Orientation Test (LOT; Scheir & Carver, 1985), an instrument with eight items designed to assess generalized expectancies for positive and negative outcomes (e.g., “In uncertain times, I usually expect the best”, “I hardly ever expect things to go my way”).

Correlational analysis indicated that optimism was related to less depression and fewer negative coping strategies, and related to more positive coping strategies. Partial correlations were conducted to determine whether optimism predicted outcomes after controlling for other personal variables (neuroticism, self-mastery, self-esteem, and trait anxiety). Analyses revealed that optimism remained a significant predictor of depression and several coping strategies (active coping, planning, positive reinterpretation and growth, seeking of support, turning to religion, and behavioral disengagement) when the other factors were controlled, suggesting that optimism plays a unique role in both affect (depression) and behavior (coping).

Additionally, a series of factor analyses were conducted on a combination of the items from the LOT as well as items from the other individual factor measures (self-esteem, self-mastery, emotional liability, worry). In each of these analyses, the LOT items loaded on an optimism factor. This optimism factor was correlated with coping
behaviors in consistent ways (e.g., positively related to planning and seeking support; negatively related to disengagement (withdrawal) and depression).

Study 2 assessed the convergent and discriminant validity of a revised version of the LOT. Based on the results of the factor analysis in study 1, two items assessing coping strategies were dropped from the original LOT, leaving only items that reflect positive and negative expectations. A sample of 2,055 undergraduates completed questionnaires which included the revised version of the LOT (LOT-R). A factor analysis indicated that the six remaining items from the LOT-R loaded significantly on a single optimism factor. The optimism factor was positively related to self-esteem and negatively related to anxiety and neuroticism. Thus, the researchers concluded that the LOT-R is a valid measure of optimism, and provides evidence of the uniqueness of optimism as an affective construct.

Schutte, Valerio, and Carrillo (1996) examined the association between the affective component of optimism and demographic characteristics. In the first study, a sample of 245 undergraduates completed questionnaires which assessed optimism and demographics (e.g., gender, SES, ethnicity). Optimism was measured using both the LOT and the revised General Expectancy for Success Scale (GESS-R). The GESS-R is different from the LOT in that it measures outcome expectancies about specific situations (e.g., "I make a good impression on people the first time I try"), rather than more global life expectations. The results indicated that both the LOT and the GESS-R were positively correlated with SES.
When analyzed by gender however, the LOT was positively related to SES only for males, whereas the GESS-R was positively related to SES only for females. These gender differences may represent the differential relationship orientations in traditional gender role socialization. Gender identity for men is traditionally tied to competence, and hence men's higher SES would be an indicator of success and tied to an overall positive outlook (as measured by the LOT). Gender identity for women is traditionally tied to relationship maintenance, and so they would be less likely to base their life outlook on global conditions, but SES would likely provide a context for comfortable relationship and life circumstances. Ethnic differences emerged as well, in that both scales were positively related to SES for Anglo-Americans, but no relationship existed for Mexican-American students.

This lack of association for Mexican-Americans was further explored in a second study. A sample of 254 Mexican-American students completed the same questionnaire used in study 1. Due to that fact that no previous factor analysis had been conducted on the GESS-R with a Mexican-American sample, exploratory factor analysis was conducted. The factor structure for the LOT was similar to results previously found. Six factors emerged, however, for the GESS-R (career optimism, interpersonal relationships, life outlook, self-efficacy, pessimism, and social interaction). Ethnic differences discovered in study 1 as well as the factor structure found in study 2 suggest that the GESS-R measures optimism in particular situations that may be somewhat Eurocentric, and that it is less representative of a personality construct. These results suggest that the
LOT might be a better measure of optimism as a global dispositional and affective construct.

Hjelle, Busch, and Warren (1996) also used the LOT in a study on parenting styles. More specifically, undergraduates (n=207) completed a survey which included the LOT, the Attributional Style Questionnaire, and questions about their retrospective perceptions of parenting styles utilized during their childhoods (PARQ). Results indicated no substantive association between attributions and optimism. Adult optimism was associated with (a) higher parental warmth and affection, and (b) lower parental aggression, hostility, neglect and indifference. The authors suggested that being raised in an environment with more affectionate and less hostile or apathetic parenting might produce children with a more positive outlook on life which continues into adulthood.

The previous research indicates that optimism is related to some individual outcomes (e.g., depression, SES). This research, however, does not elucidate the association between optimism and relationship quality (e.g., satisfaction, commitment, adjustment). Two recent studies have examined this association.

Dicke (1997) examined the relationship between optimism and romantic outcomes in two studies. In study 1, a sample of 169 dating and married couples completed questionnaires which assessed optimism, satisfaction, subjective well-being, commitment, self-esteem, conflict style, attachment style, love style, relationship effort and alternatives. Results indicated that optimist-optimist couples (both partners were classified as optimists) had greater satisfaction and greater subjective well-being, than optimist-pessimist couples. Pessimist-pessimist couples had the lowest satisfaction,
commitment, and subjective well-being. Optimist-Optimist couples demonstrated more positive conflict resolution skills (integration, compromising) and fewer negative conflict resolution skills (domination) than did pessimist-pessimist couples. Optimist couples expended more relationship effort, and had less insecure attachment styles than pessimist couples. There were no couple differences for relationship alternatives. This research provides initial evidence that optimism as a personal disposition is related to relationship characteristics.

In the second study, 100 undergraduates completed questionnaires which assessed optimism, as well as positive/negative affect. Respondents were then presented with LOT results from two hypothetical individuals, one scoring high on optimism (optimist) and one scoring low on optimism (pessimist). The respondents were then asked to rate how much they liked each individual using the Interpersonal Assessment Survey. Individuals reported being more attracted to partners who are optimists, regardless of their own level of optimism. This research suggests that this relationship may occur because individuals desire to be with those that have a more optimistic disposition, suggesting that there may be something more rewarding or less aversive about interaction with those with this disposition.

In contrast to Dicke (1997), Carnelley and Janoff-Bullman (1992) examined optimism about relationships. In this study, optimism was defined as an outlook on a particular relationship (specific) rather than an overall outlook on life (dispositional). A sample of 187 undergraduates completed questionnaires which assessed optimism about personal relationships and relationship quality in reference to (a) their parents' marriage,
(b) current romantic relationships and (c) future romantic relationships. Results indicated that individuals in more satisfied current romantic relationships had higher levels of specific optimism about future romantic relationships. Consistent with Hjelle et al. (1996), individuals whose parents had more satisfied marriage relationships had higher levels of specific optimism in reference to their own future romantic relationships.

In sum, much of the optimism research has focused on the development of measures and the analysis of how optimism is associated with other personal characteristics. There have been a few recent studies which have examined optimism in the context of relationships, but it has focused on retrospective reports (e.g., Hjelle et al., 1996) or hypothetical partners (e.g., Dicke, 1997, study 2). Of the studies which have examined optimism in ongoing relationships, there has been inconsistent measurement of optimism as a global (e.g., Dicke, 1997) or relationship specific (e.g., Carnelli & Janoff-Bullman, 1992) affective construct. It seems reasonable to expect that relationship-specific optimism might be more central to relational functioning, so this type of optimism will be assessed in the present study. The current study will also extend the optimism literature by examining ways in which this factor is associated with components of the Investment Model and relationship quality.

**Empathy**

Empathy is the ability to understand others' experiences from their perspective. More specifically, it is defined as "one person's responsivity to the experiences of another" (Davis & Oathout, 1987, p. 397). Empathy is a prerequisite to establishing
harmonious relationships (Mueller & Fiebert, 1988), in that it is associated with prosocial outcomes and indirectly contributes to satisfaction (Davis & Oathout, 1987). The literature on empathy describes both cognitive and affective components (Long & Andrews, 1990). The cognitive component involves the ability to accurately perceive the thoughts and feelings of others, whereas the affective component refers to the ability to take on the feelings of another. The cognitive dimension is referred to as perspective taking (Davis and Oathout, 1987). The affective component has two dimensions, empathic concern and empathic distress. Empathic concern is the ability to experience sympathy and compassion on behalf of others, whereas empathic distress refers to one actually experiencing aversive feelings (e.g., anxiety) in reaction to the distress of others. Perspective taking and empathic concern are generally seen to be relationship enhancing, whereas empathic distress is a distress maintaining construct (Davis and Oathout, 1987).

Much of the empathy research has focused on perspective taking. For example, Long and Andrews (1990) examined this component of empathy between married spouses. Arguing that general and relationship-specific perspective taking contribute uniquely to relationship quality, they assessed perspective taking as (a) a general construct as defined by Davis and Oathout (1987); (b) self, which reflects an individual’s perception of her/his own perspective taking in the marriage; and (c) partner, which reflects an individual’s perception of his/her partner’s perspective taking in the marriage. In addition, participants completed measures of marital adjustment and instability. The results indicated that wives’ self-perspective taking predicted husbands’ marital adjustment. For both husbands and wives, partner perspective taking predicted marital
adjustment. Further, partner perspective taking was negatively related to marital instability. These findings suggested that relationship-specific empathy was more central to relationship functioning than general empathy.

Other researchers have examined relationship-specific perspective taking by assessing the accuracy in comprehending partner affect ("empathic accuracy"). The presumption has been that empathic accuracy would be positively associated with prosocial relational processes and outcomes. For example, Mueller and Fiebert (1988) examined the relationship between empathic accuracy and satisfaction in a variety of relationships. A group of friend, dating and married couples (n=60) completed questionnaires in which they reported perceptions of their own and their partner's satisfaction, autonomy, affiliation, dominance and succorance. Difference scores were calculated between the individual’s self-rating and partner rating of the individual on the same item. Empathic accuracy was operationalized as the difference score; low difference indicated greater empathic accuracy. Results indicated that mutual empathic accuracy was positively correlated with mutual satisfaction across relationships. An analysis of individual-level data indicated that empathy was positively related to satisfaction for dating women, but negatively related to satisfaction for married women. This finding for married women may at first seem counterintuitive, there is some research that suggests that there are conditions under which partners prefer to be less empathic.

More specifically, Simpson, Ickes, and Blackstone (1995) investigated empathic accuracy in understanding partners’ attraction toward others. A sample of 82 dating couples completed questionnaires about the closeness of their relationships, insecurity
about their relationships, and satisfaction. In addition, while being videotaped, couples
together viewed slides and audibly rated the attractiveness and sexual appeal of the
potential dating partners. Partners later viewed the videotapes independently, and were
asked to indicate their own and their partner’s thoughts and feelings during the screening.
The couples were contacted four months later to determine whether they remained
together. Empathic accuracy scores were computed using the difference score between
self-report and partner’s report of feelings. Couples with lower empathic accuracy
perceived greater threats, were less close, and more insecure about their relationships. In
addition, couples with less congruent empathy accuracy scores were more likely than
other couples to still be dating at the four-month follow-up period. The researchers
concluded that empathic inaccuracy may protect the relationship from external threats
(e.g., attractive alternatives) and actually promote relationship stability. This would be
consistent with Mueller and Fiebert’s (1988) finding that wives’ lower empathy is related
to greater satisfaction.

These previous studies focused exclusively on the cognitive component of
empathy (perspective taking). Other research has examined the affective components.
For example, Batson, Early, and Salvarini (1997) investigated the differential experiences
of empathic concern and empathic distress in hypothetical situations. Undergraduates
(n=60) were assigned to one of three experimental conditions. In the first condition
(objective), subjects were asked to listen to an audiotape describing an individual in
difficult circumstances while remaining emotionally neutral to the situation. In the
second condition (imagine other), subjects were asked to imagine how the person in the
story feels. In the third condition (imagine self), subjects were asked to consider how they would personally feel in that circumstance. Immediately after listening to the tape, subjects were asked to complete questionnaires in which they rated their emotional reactions to the situation. Empathy was conceptualized as feeling of sympathy, softheartedness, warmth, compassion, tenderness and moving. Empathic distress was conceptualized as feelings of alarm, grief, trouble, distress, upset, disturbance, worry and perturbation.

Results indicated that participants in the imagine conditions (conditions 2 and 3) reported feeling more empathy than those in the objective condition. Participants in the imagine self condition reported feeling more distress than those in the objective and imagine other conditions. This suggests that individuals trying to imagine themselves in the same circumstance might experience similar amounts of empathic concern, but that levels of distress are uniquely tied to self-imagined events. These findings are consistent with the empathy literature, but the study is limited by its lack of analysis of actual relationship dynamics.

In contrast to Batson et al. (1997), Rowan, Compton and Rust (1995) examined the role of perspective taking and empathic concern in ongoing relationships. A sample of married couples (n=30) completed questionnaires which assessed marital satisfaction, self-actualization, and empathy. Two of the IRI subscales (Davis, 1980) were used to assess perspective taking and empathic concern. Perspective taking was also measured by calculating empathic accuracy scores on subscales of the DAS. Women had higher scores than did men on (a) a combined score of the perspective taking and empathic
concern subscales and (b) on the empathic concern subscale alone. Perspective taking was positively associated with marital adjustment for men, but not for women. In contrast, empathic accuracy on DAS scores was positively associated with marital satisfaction for women, but not for men. The researchers expected that empathic concern would be associated with greater satisfaction for women, but this association did not emerge. Given that women had higher empathic concern scores, they argued that there might have been a ceiling effect and thus a relationship to satisfaction could not be detected.

Davis and Oathout (1987) conducted a more comprehensive study of the association between empathy and satisfaction in ongoing relationships. They reasoned that empathy components (perspective taking, empathic concern, empathic distress) might be indirectly related to satisfaction, and that this relationship would be mediated by relational behaviors. A sample of 264 undergraduate (married or dating) couples completed questionnaires which assessed the empathy dimensions via the Interpersonal Reactivity Index (IRI; Davis, 1980). In addition, each person completed measures of satisfaction, as well as measures of own and partner relational behaviors (e.g., my communication, my partner’s communication).

The researchers utilized path analysis to evaluate a model in which an individual’s levels of empathy would be related to her/his own self-report of positive and negative relationship behaviors, which in turn would be related to her/his partner’s perceptions of the individual’s behaviors, which would then predict partner satisfaction. Results indicated that for men, (a) empathic concern was positively associated with good
communication, warmth, and positive outlook behaviors; (b) perspective taking was positively related to even temper and negatively related to insensitivity behaviors; and (c) empathic distress was positively related to possessiveness and negatively related to positive outlook behaviors. For women, (a) empathic concern was positively related to good communication, warmth, positive outlook, and negatively related to untrustworthiness and insensitivity behaviors; (b) perspective taking was positively related to good communication, even temper, positive outlook, and negatively related to untrustworthiness and insensitivity behaviors; and (c) empathic distress was positively related to untrustworthiness and possessiveness and negatively related to good communication and positive outlook behaviors.

Further, there was congruence between self and partner perceptions of relational behaviors. The partner’s perceptions of the individual’s behaviors were, in turn, related to the partner’s level of satisfaction with the relationship. In other words, the model tested the effect that empathy had on one’s behavior, which in turn affected the partner’s satisfaction. The direct relationship between empathy and satisfaction was not tested, but an association between empathy dimensions and positive/negative behaviors demonstrated specific processes through which cognitive and affective empathy can contribute to relationship quality (Davis & Oathout, 1987).

In sum, there is initial evidence that components of empathy play an important role in relationship functioning. Several studies demonstrated that empathy affects relationship quality, but most relationship research has focused on perspective taking. Initial studies which have examined the affective components of empathic concern or
empathic distress suggested that these factors indirectly contribute to relationship quality. Further, the studies on affective empathy have not clarified whether they have examined global or relationship specific empathy. Given the differences in global and specific perspective taking (e.g., Long & Andrews, 1992), it is possible that relationship-specific affective empathy is more strongly tied to relationship quality than previously presumed. The present study extends empathy research by examining the ways in which relationship-specific empathic concern and empathic distress are associated with satisfaction and commitment in ongoing marital relationships. Further, this study tests direct and indirect associations between empathy and relationship quality, as it is possible that components of the Investment Model mediate these associations.

Positive and Negative Socioemotional Behaviors

In the last decade, relationship researchers have focused on interaction behaviors called socioemotional or relationship maintenance behaviors (Weigel & Ballard-Reisch, 1999). These behaviors serve to preserve ongoing relationships through the prevention of decline, enhancement, or repair of relationships (Stafford, 1994). Positive behaviors (e.g., complimenting partner) are seen as prosocial and promote the healthy functioning of the relationship. Negative behaviors (e.g., criticizing partner) are aversive and promote relationship distress. A number of studies have examined such behaviors and found them to be associated with relationship quality.

In an early study, Jacobsen, Follette, and McDonald (1982) examined the association between reactivity to relationship behaviors and marital distress. Arguing that
distressed couples are more reactive to highly valenced (positive or negative) recent events. They studied daily patterns of marital behaviors and satisfaction. A sample (n=41) of distressed and nondistressed married couples [determined by seeking therapy status], completed questionnaires assessing marital adjustment. Couples then completed a behavior and satisfaction checklist nightly for two weeks. The nightly checklist consisted of joint behaviors and partner initiated behaviors in a variety of marital domains (e.g., companionship, affection, parenting, communication, household responsibilities, and personal habits). Respondents were phoned nightly to ensure completion of the checklist.

Reactivity was measured as the correlation between the ratio of positive to negative daily behaviors and the daily satisfaction rating. Results indicated that (compared to distressed couples), nondistressed spouses reported more positive and neutral behaviors, fewer negative behaviors, higher positive to negative behavior ratios, and lower negative to positive behavior ratios. For both couple types, the relative frequency of negative behaviors was low, suggesting that the negative behaviors may be problematic for distressed relationships. Although both distressed and nondistressed couples showed significant correlations between daily behavior levels and satisfaction, distressed couples were significantly more reactive to negative behaviors than were nondistressed couples. This suggested that daily socioemotional behaviors are more salient and satisfaction is more situationally dependent for distressed couples. Such behaviors are still important to satisfaction in nondistressed marriages, but satisfaction may be affected by a wider range of personal and interpersonal characteristics.
Ayres (1983) examined the behavioral strategies that individuals use to maintain their relationships. An instrument identifying 38 potential maintenance tactics was developed and tested on a sample of 359 undergraduates. Factor analysis revealed that nine of the 38 scales loaded significantly on three factors, representing avoidance (trying to avoid change in the relationship), balance (trying to maintain current emotional levels) and directness (willingness to express needs to partner). The undergraduates were then placed in one of three treatment conditions, and were asked to complete the same scale in reference to a hypothetical relationship situation. The situations differed by relationship type (friend, dating, acquaintance), relationship progression (whether the other wanted the relationship to stay the same), and gender of the partner. Across gender and relationship types, individuals whose partner wished to further develop the relationship use fewer balancing strategies, whereas those whose partner wished the relationship to deteriorate used more balancing strategies. Also, individuals who wish to maintain stability while their partner wishes to develop the relationship use more avoidance tactics. Individuals whose partner wants to develop or deteriorate the relationship will use more direct strategies. This research suggests that individuals engage in different behaviors for the development, maintenance, and dissolution of their relationships.

Dainton and Stafford (1993) examined differences by gender and relationship type in the use of relational maintenance behaviors. A sample of 129 married and 114 dating couples were asked to respond to the following open-ended questions: “Please offer examples of behaviors that you have used to maintain your relationship” and “please try to describe those mundane things you do to maintain your relationship”. From the
responses, a taxonomy of behaviors was developed which included: positivity, openness, assurances, social networks, sharing tasks, joint activities, talk, mediated communication, avoidance, antisocial, affection, focus on self, and miscellaneous. Results of Chi square analysis demonstrated that there were few differences between married and dating couples, and they utilized similar maintenance behaviors. Two differences that emerged were that married couples reported greater tasks, and dating couples reported greater mediated communication. In addition, researchers found that in both dating and married relationships, partners reported highly similar levels of behaviors, suggesting a confluence of maintenance interactions. Consistent with gender theory arguments that women are more relationship oriented than men, they further found that women reported greater levels of positivity, openness, talk, and antisocial behaviors.

Similarly, Baxter and Dindia (1990) examined marital partners' perceptions of the ways in which maintenance is enacted. Forty-five married couples and one married individual completed a sorting activity. More specifically, participants were given cards which listed specific relational behaviors and were then asked to sort the behavior cards into meaningful groups, with no limitations as to the number or size of the card groupings they could construct. Analysis of the participants' groupings revealed three overall dimensions: constructive vs. destructive communication, ambivalence based vs. satiation based conditional use, and proactivity vs. passivity. No gender differences emerged in the strategies or groupings. Thus, the researchers concluded that both men and women experience maintenance behaviors as a dynamic process of achieving equilibrium. In this study and the Dainton and Stafford (1993) study, the researchers concluded that such
relational behaviors may be routine and mundane, but are not inconsequential. Rather, they argued that such behaviors play an important role in other relational characteristics.

This can be seen in Huston, McHale and Crouter’s (1986) research. They examined changes in marital behavior over the first year of marriage. A sample of 168 newly married couples were interviewed separately and together within three months of marriage and then again one year later. Couples completed questionnaires assessing marital satisfaction, love, ambivalence, maintenance and answered questions assessing their degree of satisfaction with specific behaviors within the relationship. Couples were telephoned nine times during the three weeks following the interviews to assess the activities that spouses were engaging in on a regular basis.

Results indicated that couples showed an increase in instrumental tasks and a decrease in leisure activities over the first year of marriage (this change was greater for those who became parents). Most notably, the daily interaction data indicated that there was no change in the rates of negative behaviors, but pleasurable activities declined by 40% over the year; both husbands and wives were less affectionate, approving, and disclosing after the first year. This was supported by questionnaire data indicating that spouses spent less time talking about their relationships, made fewer efforts to resolve problems, and disclosed their needs less to one another. These changes in marital behaviors, however, did not predict changes in marital quality over time.

The authors suggested that there is a change in the emotional tone of the marriage that occurs during the beginning years, and that this change is reflected by the decline in positive socioemotional behaviors. They argued that the lack of association between
change in behavior and quality is likely due to the short duration of the study. That is, the association between behaviors and satisfaction may not have emerged in the first year, and lengthier study might be necessary to detect such associations.

Thus, in a follow-up study, Huston and Vangelisti (1991) further examined the association between relationship behaviors and marital satisfaction. Using a subsample of the couples interviewed in the previous study (Huston, et al. 1986), couples were interviewed using the same procedure approximately two months after marriage, and again at year 1 and year 2 of their marriage. Factor analysis was conducted on the relationship behaviors that were reported, and revealed three general factors: affectional expression, negativity, and sexual interest behaviors. Multiple regression analysis indicated that husbands’ and wives’ satisfaction covaried with the extent to which they demonstrated affection, sexual interest, and negativity. Longitudinal analysis indicated that husbands’ negativity at time 1 was inversely associated with satisfaction for wives at year 2. Satisfaction at the beginning of marriage did not predict socioemotional behaviors at year 2, nor did it predict satisfaction at year 2. Wives who were high in sexual interest and low in negativity at time 1 were higher in satisfaction at year 2. Wives whose husbands demonstrated more affection and less negativity at the beginning of marriage were more affectionate and less negative toward husbands. This research not only demonstrates a relationship between behaviors and satisfaction, but also provides initial evidence that individual's behaviors are an important factor in determining relationship quality over time.
Weigel and Ballard-Reisch (1999) also examined the role of maintenance behaviors in marriage quality. A sample of 129 married couples completed questionnaires which assessed maintenance behaviors, satisfaction, commitment, and love. Maintenance behaviors were measured using Canary and Stafford’s (1992) scale, which contains five subscales: positivity, openness, assurances, networks and tasks. Structural equation modeling revealed that the wives' love and the husbands’ satisfaction were both positively associated with all of the behavior subscales for wives. Only wives’ positivity was related to wives’ commitment. Husband satisfaction was positively related to husband behaviors (positivity, openness, and network); and husbands’ assurances were positively related to husbands’ love. Husband behaviors were not associated with husbands’ commitment or relationship quality for wives. The authors suggested that these gender differences imply that perhaps women are more relationship oriented than men, so women’s behaviors may have a greater impact on quality for men and women. They argued that maintenance behaviors may be affected by factors other than marital quality, and future research should examine the interplay between personal, behavioral, and outcome factors.

Ballard-Reisch, Weigel, and Zaguidoulline (1999) have also examined cultural differences in the relationship between maintenance behaviors and quality. A sample of 321 Russian, Tatar (an ethnic subgroup) and Russian-Tatar mixed couples completed questionnaires which assessed maintenance behaviors, satisfaction and commitment. Results indicated that women across groups reported using more positivity, openness and network than men. Husbands and wives’ openness was positively associated with their
own satisfaction and commitment, whereas assurances, positivity, and tasks were positively associated with both self and spouses' satisfaction and commitment. Cultural differences did not emerge between the Russian samples. The findings were similar to Wiegel and Ballard-Reisch (1999), which suggest that maintenance behaviors may be linked to more universal relationship processes.

In sum, there is a significant and growing body of literature which demonstrates the salience of maintenance behaviors to relationship quality. As expected, positive behaviors were consistently associated with greater satisfaction and commitment. In turn, negative behaviors were inversely associated with these quality. Previous research has documented the direct association between positive/negative socioemotional behaviors and relationship quality, but no research to date has investigated whether these associations might be mediated by other processes. An investigation of the relationship between positive/negative socioemotional behaviors and components of the Investment Model will provide insights as to the ways in which these behaviors are associated with quality.

Summary of Hypotheses

In sum, the Investment Model has demonstrated strong associations with relationship characteristics (satisfaction and commitment) across relationship status, gender/sexual orientation, and university/community samples. Longitudinal research also demonstrates support for the predictive validity of the model over time. It is hypothesized that relationships between the investment model factors and relationship
characteristics (satisfaction and commitment) will emerge in the current study. More specifically, it is hypothesized that rewards, comparison level, investments and barriers will be positively related to satisfaction and commitment; it is hypothesized that costs and alternatives will be negatively related to satisfaction and commitment (hypothesis 8, Table 1).

In addition, the Investment Model can be a useful explanatory tool in investigating the relationship between (a) the cognitive, affective and behavioral individual characteristics and (b) satisfaction and commitment. The research on the cognitive variable of attributions has demonstrated a strong association with relational processes. Causal/responsibility attributions for negative behaviors have been associated with (a) lower satisfaction (Fincham & Bradbury, 1992; Lussier, Saborin, & Wright, 1993; Madden & Janoff-Bullman, 1981), (b) greater marital distress (Camper, Jacobsen, Holtzworth-Munroe, & Schmalling, 1988; Fincham & O'Leary, 1983; Kyle & Falbo, 1985; Epstien, Pretzer, & Flemming, 1991), (c) greater negative behaviors (Miller & Bradbury, 1995) and (d) increased anger (Fincham & Bradbury, 1992; Lussier et al., 1993). Such attributions increase the impact of negative events and decrease the impact of positive events on marital quality. As previous research has established an inverse relationship between causal/responsibility attributions for negative behavior and satisfaction, it is expected that this relationship will emerge again in the present study. In addition, this study will examine whether a similar association exists with commitment (hypothesis 1a, Table 1).
It is also expected that attributions will be related to some components of the Investment Model. Individuals who make more causal and responsibility attributions about their partner's negative behaviors will likely perceive the relationship to be more costly and less rewarding, and will likely perceive their alternatives as more attractive. In addition, attributions will likely be negatively related to the comparison level, as one who attributes negative behavior to characteristics of their spouse will be less likely to see their current relationship as matching their ideal relationship. Hence, it is hypothesized that attributions will be negatively related to rewards, and comparison level; and positively related to costs (hypothesis 1b, Table 1).

Another line of cognitive research has identified an association between relationship thinking and satisfaction (Acitelli, 1992; Acitelli, Rogers, & Knee, 1999). More specifically, distressed partner thinking was associated with lower satisfaction in romances (Cate et al., 1992). Similarly, it was hypothesized that distressed thinking would be negatively related to satisfaction and commitment for the marital sample in the present study (hypothesis 2a, Table 1).

Distressed partner thinking may be related to components of the Investment Model as well. Because it is a distress maintaining construct, such thinking will likely be positively related to costs and negatively related to rewards. Distressed partner thinking may also be associated with greater irretrievable investments as relational cognition might require increased time and emotional effort (e.g., Acitelli, 1992) which cannot be reclaimed once expended. In addition, distressed partner thinking will likely be negatively related to comparison level, because individuals who engage in more
distressed partner thinking will be less likely to see their relationship as matching their ideal. Hence, it is hypothesized (hypothesis 2b, Table 1) that distressed partner thinking will be negatively related to rewards and comparison level, and positively related to costs and investments.

In addition to the cognitive factors, this study examines two affective factors (empathy and optimism). This research examines two dimensions of empathy: empathic distress and empathic concern. Empathic concern represents sympathy and compassion for others, and empathic distress refers to an individual experiencing distressful feelings (e.g., anger, frustration) in reaction to the circumstances of others. Davis and Oathout (1987) found that greater empathic concern was related to positive relational behaviors, whereas empathic distress was negatively associated with positive behaviors; both forms of empathy were indirectly associated with partners’ satisfaction. The present study will examine the relationship between (a) the two affective components of empathy and (b) satisfaction and commitment. Because empathic concern has been demonstrated to be related to positive indices of relationship functioning, it is likely that it will be positively associated with both satisfaction and commitment (hypothesis 3a, Table 1). In contrast, empathic distress has been found to be distress maintaining, so it is likely that it will be negatively associated with satisfaction and commitment (hypothesis 4a, Table 1).

The ability of a person to be empathic in a relationship will likely be associated with components of the Investment Model. Empathic concern is expected to be positively related to rewards, as those individuals who feel compassion for their partner are more likely to experience their relationships as gratifying. In contrast, empathic
concern is likely to be negatively related to costs, because individuals who feel sympathy are less likely to perceive their relationships as unpleasant or aversive. It also will be associated with greater investments, as empathic concern likely involves emotionally investing oneself in the relationship. Empathic concern will be positively related to barriers to leaving the relationship, because an individual who feels such concern for her/his partner will be less likely to want to hurt him/her by terminating the relationship. Hence, it is hypothesized (hypothesis 3b, Table 1) that empathic concern will be positively related to rewards, investments and barriers, and that empathic concern will be negatively related to costs.

Empathic distress is seen as a distress maintaining construct, and will likely be related to components of the Investment Model in different ways. Due to its negative affective state, empathic distress will likely be positively related to costs and negatively related to rewards. Empathic distress will also be negatively related to the comparison level, because an individual in a relationship with increased distress is less likely to see the relationship as a match to ideal expectations. Hence, hypothesis 4b (Table 1) posits that empathic distress will be negatively related rewards and comparison level, and that empathic distress will be positively related to costs.

There is some evidence that optimism is an important construct to relationship functioning. Scheier, Carver, and Bridges, (1994) found that optimism was positively associated with relationship enhancing coping strategies. More recently, Dicke (1997) found that couples in which both partners were classified as optimists had more positive relationship characteristics (e.g., satisfaction, subjective well-being, commitment, conflict...
resolution skills) than did couples in which one or both partners were rated as pessimists. Given that an association between optimism and (a) satisfaction and (b) commitment has been found previously, it is expected that these relationships will emerge again in the present study (hypothesis 5a, Table 1).

It makes sense to expect that optimism will be related to the components of the Investment Model as well. Optimism is likely to be related to greater rewards and fewer costs, as more optimistic individuals will likely focus on positive aspects and de-emphasize negative aspects of the relationship. It is also likely to be positively associated with investments, as an optimist will likely put more emotional effort into a relationship they see as likely to succeed. In addition, barriers to leaving will increase, as the dissolution of the relationship would represent an event that is contradictory to the expectations of an optimist. The comparison level is likely to be higher for optimists, as they may see a more positive match between their relationship characteristics and their ideals. Hence, it is hypothesized (hypothesis 5b, Table 1) that optimism will be positively related to rewards, investments, comparison level and barriers, and optimism will be negatively related to costs.

This study also focused on valenced behavioral variables. Positive behaviors have been associated with greater satisfaction (Huston & Vangelisti, 1991; Weigel & Ballard-Reisch, 1999), commitment and love (Weigel & Ballard-Reisch, 1999). Negative behaviors have been found to be associated with greater marital distress (Jacobsen, Follette, & McDonald, 1982) and lower satisfaction (Huston & Vangelisti, 1991). As previous research has found positive and negative behaviors to be related to satisfaction
and commitment, it is expected that these relationships will be confirmed in this study. Hence hypothesis 6a (Table 1) states that positive behaviors will be positively related to satisfaction and commitment, and hypothesis 7a (Table 1) states that negative behaviors will be negatively related to satisfaction and commitment.

It is also expected that behaviors will be related to the components of the Investment Model. It is likely that positive behaviors by an individual will contribute to a prosocial relational climate, so it seems reasonable to expect that positive behaviors will be directly related to rewards and negatively related to costs. An individual who perceives less attractive alternatives will likely engage in more positive relationship maintenance behaviors in an attempt to prevent its dissolution. In addition, the more barriers that exist to the dissolution of the relationship, the less effort an individual would be required to make toward the maintenance of the relationship. Thus, barriers might be associated with fewer positive behaviors. Hypothesis 6b states that positive behaviors will be positively related to rewards, and negatively related to costs, alternatives and barriers.

In contrast, negative behaviors may contribute to an aversive relational climate experienced as more costly and less rewarding. Further, an individual who perceives more attractive alternatives to the relationship will likely engage in more negative behaviors because of a decreased need for maintenance. In addition, greater barriers might be perceived as aversive, so individuals might engage in more negative behaviors. Hypothesis 7b (Table 1) states that negative behaviors will be negatively related to rewards, and positively related to costs, alternatives and barriers.
The previous hypotheses assert that (A) the individual characteristics will be related to (B) the components of the Investment Model, that (A) the individual characteristics will be related to (C) satisfaction and commitment, and that (B) the components of the Investment Model will be related to (C) satisfaction and commitment. As it is argued that the relationship between (A) the individual characteristics and (C) satisfaction and commitment is understood through (B) the Investment Model components, we are proposing a mediational model. Hence, hypothesis 9 (Table 1, Figure 1 and Figure 2) states that the association between (A) personal characteristics and (C) satisfaction and commitment will be mediated by (B) the Investment Model components.
Table 1. Summary of Hypotheses 1-8

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Independent Variable</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a-</td>
<td>Attributions</td>
<td>satisfaction, commitment, costs, alternatives</td>
</tr>
<tr>
<td>1b-</td>
<td>Attributions</td>
<td>rewards, comparison level</td>
</tr>
<tr>
<td>2a-</td>
<td>Partner Thinking</td>
<td>satisfaction, commitment, costs, investments</td>
</tr>
<tr>
<td>2b-</td>
<td>Partner Thinking</td>
<td>rewards, comparison level</td>
</tr>
<tr>
<td>3a-</td>
<td>Empathic Concern</td>
<td>satisfaction, commitment, rewards, investments, barriers</td>
</tr>
<tr>
<td>3b-</td>
<td>Empathic Concern</td>
<td>costs</td>
</tr>
<tr>
<td>4a-</td>
<td>Empathic Distress</td>
<td>satisfaction, commitment, costs</td>
</tr>
<tr>
<td>4b-</td>
<td>Empathic Distress</td>
<td>rewards, comparison level</td>
</tr>
<tr>
<td>5a-</td>
<td>Optimism</td>
<td>satisfaction, commitment, rewards, investments, comparison level, barriers</td>
</tr>
<tr>
<td>5b-</td>
<td>Optimism</td>
<td>costs</td>
</tr>
<tr>
<td>6a-</td>
<td>Positive Behaviors</td>
<td>satisfaction, commitment, rewards</td>
</tr>
<tr>
<td>6b-</td>
<td>Positive Behaviors</td>
<td>rewards, alternatives, barriers</td>
</tr>
<tr>
<td>7a-</td>
<td>Negative Behaviors</td>
<td>satisfaction, commitment, costs, alternatives, barriers</td>
</tr>
<tr>
<td>7b-</td>
<td>Negative Behaviors</td>
<td>rewards</td>
</tr>
<tr>
<td>8-</td>
<td>Satisfaction and Commitment</td>
<td>rewards, comparison level, investments, barriers</td>
</tr>
</tbody>
</table>


Figure 1. Mediation Model
Figure 2. Summary of Hypothesis 9
CHAPTER III

METHODS

Participants

Respondents were recruited by students in an introductory marriage and family course at a large Southwestern university. The criterion for individuals' inclusion in the study were that they be legally married; there were no requirements for length of marriage. Respondents for this study were 226 (48% men, 52% women) married individuals (see Table 2). Mean duration of first marriage was 18.2 years (18.8 for men, 17.7 for women). Mean age of respondents was 43.4 years (45.6 for men, 41.1 for women). Most (85.8%) of the sample were Caucasian (88.8% men, 83.3% women), 7.5% were Hispanic (9.3% men, 5.9% women), 4.9% were Black (5.6% men, 4.2% women), .9% were Multiracial (0.9% men, 0.8% women), .4% were American Indian (0.9% men, 0% women), and .4% were Asian (0.9% men, 0% women).

Measures

Investment Model Components

Rewards, costs, comparison level, alternatives, investments and barriers were measured using the Multiple Determinants of Relationship Commitment Inventory (MDRCI; Kurdek, 1995). This scale consists of 24 items with six subscales (of four items); each subscale assesses one component of the Investment Model. The questionnaire is included in Appendix A. Respondents were asked to indicate their
Table 2. Demographic Characteristics of the Sample

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>Women Mean</th>
<th>Men Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(SD)</td>
<td>(SD)</td>
</tr>
<tr>
<td>Age</td>
<td>41.1</td>
<td>45.6</td>
</tr>
<tr>
<td></td>
<td>(11.6)</td>
<td>(10.1)</td>
</tr>
<tr>
<td>Partner's Age</td>
<td>43.6</td>
<td>43.7</td>
</tr>
<tr>
<td></td>
<td>(12.7)</td>
<td>(11.0)</td>
</tr>
<tr>
<td>Length of Marriage</td>
<td>17.7</td>
<td>18.8</td>
</tr>
<tr>
<td></td>
<td>(11.4)</td>
<td>(11.8)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Percent Self</th>
<th>Percent Self</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Percent Self)</td>
<td>(Percent Self)</td>
</tr>
<tr>
<td>White</td>
<td>88.1</td>
<td>83.3</td>
</tr>
<tr>
<td></td>
<td>(89.0)</td>
<td>(82.4)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>5.9</td>
<td>9.3</td>
</tr>
<tr>
<td></td>
<td>(6.8)</td>
<td>(11.1)</td>
</tr>
<tr>
<td>Asian</td>
<td>0.8</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>(0)</td>
<td>(0)</td>
</tr>
<tr>
<td>Black</td>
<td>4.2</td>
<td>5.6</td>
</tr>
<tr>
<td></td>
<td>(3.4)</td>
<td>(5.6)</td>
</tr>
<tr>
<td>Multiracial</td>
<td>0.8</td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>(0.8)</td>
<td>(0.9)</td>
</tr>
<tr>
<td>Native American</td>
<td>0</td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>(0)</td>
<td>(0)</td>
</tr>
</tbody>
</table>
Table 2. Continued

<table>
<thead>
<tr>
<th>Education</th>
<th>Women</th>
<th>Men</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent Self</td>
<td>Percent Self</td>
<td>(Percent Partner)</td>
<td>(Percent Partner)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than HS</td>
<td>1.7</td>
<td>0</td>
<td>(0.9)</td>
<td>(0)</td>
</tr>
<tr>
<td>Some HS</td>
<td>1.7</td>
<td>0.9</td>
<td>(0.9)</td>
<td>(4.7)</td>
</tr>
<tr>
<td>HS Graduate</td>
<td>21.6</td>
<td>14.2</td>
<td>(15.7)</td>
<td>(18.9)</td>
</tr>
<tr>
<td>Some College</td>
<td>23.3</td>
<td>27.4</td>
<td>(23.5)</td>
<td>(34.9)</td>
</tr>
<tr>
<td>College Graduate</td>
<td>41.4</td>
<td>40.6</td>
<td>(40.0)</td>
<td>(24.5)</td>
</tr>
<tr>
<td>Post College</td>
<td>10.3</td>
<td>17.0</td>
<td>(19.1)</td>
<td>(17.0)</td>
</tr>
</tbody>
</table>
agreement with each item on a seven-point Likert type scale (1=strongly disagree, 7=strongly agree). The rewards subscale (e.g., “One advantage to my relationship is having someone to count on”) and the costs subscale (e.g., ”I give up a lot to be in my relationship ”) had internal consistency coefficient alphas of .83 and .82 respectively. The comparison level subscale (e.g., “My current relationship comes close to matching what I would consider to be my ideal relationship”) demonstrated a reliability coefficient alpha of .83. The alternatives subscale (e.g., “As an alternative to my current relationship, I would like to date someone else”) was internally consistent (alpha of .77). The investments subscale (e.g., “I’ve put a lot of energy and effort into my relationship”) and the barriers subscale (e.g., “It would be difficult to leave my partner because of the emotional pain involved”) had internal consistency coefficient alphas of .60 and .64, respectively. Because of the low internal consistency of the investments scale, one of the items was removed from the scale, which increased the internal consistency coefficient to .64.

**Attributions**

Relationship attributions were assessed using the Relationship Attribution Measure (RAM; Fincham & Bradbury, 1992). Participants read four hypothetical situations: (a) your spouse criticizes something you say, (b) your spouse begins to spend less time with you, (c) your spouse does not pay attention to what you are saying, and (d) your spouse is cool and distant. For each situation, respondents indicated on a seven-point Likert type scale (1= strongly disagree, 7= strongly agree) the extent to which they
agree with six statements reflecting attributions. The 24-item scale contains two subscales, 12 items assess causal attributions (e.g., "My partner's behavior was due to something about them") and 12 items assess responsibility attributions (e.g., "My partner deserves to be blamed for their behavior"). The reliability coefficient alpha was .90 for the causal subscale and .93 for the responsibility subscale.

Relationship Thinking

To assess relationship thinking, a scale developed by Cate et al. (1995) was used. The original 13-item scale assesses thinking about relationships on three dimensions: positive affect thinking, network thinking, and distressed partner thinking. Network thinking was excluded from hypothesis testing because Cate et al.'s (1995) research showed that it was not associated with relationship quality. Positive affect thinking was excluded because it is more affective than cognitive in nature. In order to test the only the distressed partner thinking subscale was used. The distressed partner thinking subscale consists of four items (e.g., "I wonder how close my partner feels toward me") to which respondents reported their level of agreement on a seven-point Likert type scale (1=strongly disagree, 7=strongly agree). Reliability coefficient alpha for this scale was .63. Because of the low reliability of this scale, one of the items was removed, which resulted in a reliability coefficient of .76.
Optimism

Optimism was assessed using the Life Orientation Test (LOT; Schutte et al., 1996). The eight item LOT assesses general optimism as an affective personal factor. Respondents were instructed to answer each of the optimism items in reference to their romantic relationships. Respondents indicated on a seven-point Likert type scale (1=does not describe me well, 7=describes me very well) the degree to which the items describe them personally (e.g., “In uncertain times, I usually expect the best”). The internal consistency coefficient alpha for the eight items was .82.

Empathy

The Interpersonal Reactivity Index (IRI; Davis, 1980) was used to assess empathy. This measure assesses empathy on three subscales: perspective taking, empathic concern and empathic distress. As perspective taking is considered to be a cognitive and not an affective factor (Davis and Oathout, 1987), this subscale was not used to test the hypotheses. Only the empathic concern and empathic distress subscales were used to assess the affective dimensions of empathy. The original subscales consist of seven items each (e.g., empathic concern: “When I see someone being taken advantage of I feel kind of protective of them” and empathic distress: “In emergency situations I feel apprehensive and ill at ease”). For the current study, respondents were instructed to answer each of the empathy items in reference to their romantic relationships. In addition, items which specifically refer to individuals were modified to reflect the relationship partner (e.g., empathic concern: “When I see my partner being taken
advantage of I feel kind of protective of him/her”). Respondents were asked to indicate on a seven-point Likert type scale (1=does not describe me well, 7=describes me very well) how well each statement describes them. Internal consistency coefficient alpha was .76 for empathic distress and .75 for empathic concern.

Positive and Negative Socioemotional Behaviors

Positive and negative relationship behaviors were assessed using items from an index of marital behaviors developed by Wills, Weiss, and Patterson (1974). The original scale assessed sexual, affectionate and negative behaviors, but due to their sensitive nature, the sexual items were not included. Respondents were asked to indicate on a seven-point Likert type scale (1=never, 7=frequently) how often they exhibit each of the positive and negative relationship behaviors (e.g., “I approve of or compliment my partner” and “I show boredom or disinterest”). Respondents reported their perceptions of their own behaviors; five items represented positive behaviors and produced an internal consistency coefficient alpha of .87. Six items represented negative behaviors and produced an internal consistency coefficient alpha of .80.

Satisfaction

Satisfaction was assessed using the Kansas Marital Satisfaction Scale (KMSS; Schumm et al., 1985). The original three item scale was oriented toward marriage relationships exclusively, and was modified for this study to accommodate other types of relationships: “I am satisfied with my relationship,” “I am satisfied with my partner in
his/her role as my partner,” and “I am satisfied with my relationship with my partner.”
Respondents were asked to indicate on a seven-point Likert type scale (1=not at all true, 7=extremely true) the extent to which each statement was true for them. Internal consistency coefficient alpha was .98.

Commitment

Commitment was assessed using the commitment subscale from Sternburg's Love Scale (Sternburg, 1988). Seven items represent the extent to which the respondent is dedicated to the relationship. Respondents were asked to indicate on a seven-point Likert type scale (1=not true at all, 7=extremely true) the extent to which each statement (e.g., “I am committed to maintaining my relationship with my partner”) was true for them. Internal consistency coefficient alpha for the seven items was .99.

Supplementary Measures

Other measures were included in the questionnaire packet for future analysis.

Living Together

For those individuals who cohabited prior to marriage, a preliminary measure of reasons for cohabitation was developed for use with this survey. Based on the typology presented by Rice (1999), respondents who cohabitated prior to marriage were asked to indicate which of five statements most closely reflected the reason why they first chose to live together: "While we had no plans to marry, we felt that we could save money on
rent, utilities, etc. by sharing a single residence," "While we did not plan to marry, we felt that we loved each other and wanted to spend more time together," "We wanted to see whether we would be compatible for a relationship someday, and thought that living together would be a good way to test that," "We had already decided to marry, and did not see the point in being apart in the meantime," and "We had no intention of ever marrying, and thought we would just live together as an alternative."

Familism

To assess this factor, the familism subscale of the Estimation of Collectivism Scale (ESTCOL; Realo, Allik, & Vadi, 1997) was used. Respondents indicated on a seven-point Likert type scale (1=strongly disagree, 7=strongly agree) the extent to which they agree with eight statements (e.g., "In life, family interests are the most important").

Perceived Partner Positive and Negative Behaviors

In addition to the individual behavior scale described previously, a parallel behavior scale was included to assess the respondents' perceptions of how frequently their partners engage in positive and negative behaviors. The items from the behavior scale were modified to assess these behaviors on a seven-point Likert type scale (1=never, 7=frequently; e.g., "My partner approves of or compliments me" and "My partner seems bored or disinterested").

90
Perspective Taking

Perspective taking was assessed using the perspective taking subscale of the Interpersonal Reactivity Index (IRI; Davis, 1980) previously described. The perspective taking subscale consists of seven items (e.g., “Before criticizing someone, I try to imagine how I would feel in their place”) to which respondents were asked to indicate on a seven-point Likert type scale (1=does not describe me well, 7=describes me very well) how well the statement describes them. For the current study, respondents were instructed to answer each of the perspective taking items in reference to their romantic relationships. In addition, items which specifically refer to individuals were modified to reflect the relationship partner (e.g., “Before criticizing my partner, I try to imagine how I would feel in her/his place”).

Positive Affect and Network Thinking

To assess positive affect and network thinking, two subscales of the relationship thinking scale developed by Cate et al. (1995) were used. The positive affect thinking subscale consists of three items (e.g., “I reflect on how much I love my partner”). The network thinking subscale consists of four items (e.g., “I wonder how well I will get along with my partner’s family”). Respondents were asked to report their level of agreement on a seven-point Likert type scale (1=strongly disagree, 7=strongly agree).
Multidimensional Commitment

An additional measure of commitment was included. The original scale was oriented toward marriage relationships exclusively, and was modified for this study to accommodate other types of relationships. Three distinct types of commitment to a relationship (personal, moral and structural) were assessed using a multidimensional measure of commitment used by Johnson, Caughlin and Huston (1999). The items which assess love in this measure came from a separate love scale (Braiker & Kelly, 1979), the marital satisfaction scale was adapted from Campbell, Converse and Roger (1976)’s life satisfaction scale, and other items were adapted from Stanley and Markman’s (1992) research.

Personal commitment (experienced as wanting to continue the relationship) was conceptualized as having three components: love, satisfaction and couple identity. Love was assessed using two items (e.g., “To what extent do you love your partner at this stage?”) to which respondents indicated on a seven-point Likert type scale (1=very little, 7=very much) how much love they feel for their partner. Satisfaction was measured in two ways: first, respondents indicated how their relationship is best described in a series of dialectical extremes (miserable-enjoyable, hopeful-discouraging, empty-full, interesting-boring, rewarding-disappointing, doesn’t give me much chance-brings out the best in me, lonely-friendly, and worthwhile-useless) on a seven-point Likert type scale (e.g., 1=miserable, 7=enjoyable). Satisfaction was also assessed using a single item- “Using this scale, please indicate how satisfied or dissatisfied you have been with your relationship over the past two months”, to which respondents replied on a seven-point
Likert type scale (1=completely dissatisfied, 7=completely satisfied). Couple identity was assessed by respondents indicating on a seven-point Likert type scale (1=strongly disagree, 7=strongly agree) their agreement with three statements (e.g., “You would miss the sense of being a couple”).

Moral commitment (experienced as a moral obligation to continue the relationship) was conceptualized as having three components: divorce attitudes, partner contract and consistency values. Divorce attitudes were assessed by asking respondents to indicate on a seven-point Likert type scale (1=strongly disagree, 7=strongly agree) their agreement with five statements (e.g., “Getting a divorce violates your religious beliefs”). Using a similar Likert type scale, respondents indicated the extent to which they agree with four statements about partner contract (e.g., “You would never leave your partner because he/she needs you too much”) and five statements about consistency values (e.g., “It is important to stand by what you believe in”).

Structural commitment (experienced as a constraint to continue) was conceptualized as having four components: alternatives, social pressure, termination procedures, and investments. Each component was measured by six items. On a seven-point Likert type scale (1=strongly disagree, 7=strongly agree), respondents indicated their degree of alternatives (e.g., “If you and your partner would break up, you would miss just having someone around”), social pressure (e.g., “If you and your partner would break up, you would be upset because your family would be uncomfortable with your breaking up”), termination procedures (e.g., “If you and your partner would break up, it would be hard to work out who would get what property”), and investments (e.g., “If you
and your partner would break up, you would lose all the time you had put into your marriage”).

**Procedure**

Undergraduate students recruited the respondents for this study. Student recruiters were given written and verbal instructions on how to identify potential participants and distribute research materials (see Appendix A). The recruiters contacted married individuals whom they know and offered the respondents a questionnaire packet. The packet contained a questionnaire and a letter of introduction describing the research to the respondents, and assuring their anonymity. Questionnaires were returned to the investigators directly by mail, and undergraduates were not given any information about the responses. This method of recruitment has been successfully utilized in past research (Canary & Stafford, 1992).
CHAPTER IV

RESULTS

Preliminary Analysis

Due to the number of variables included in the analyses, it is possible that some relationships might emerge as statistically significant by mere chance. To reduce the risk of committing a Type I error (e.g., "false positives"), the probability level was set to a more stringent standard. That is, the probability level was set at .01—only those relationships that are significant at $p<.01$ will be considered valid for all analyses.

One phase of preliminary analysis was to examine the measurement characteristics of the Investment Model components. A series of factor analyses (using oblique rotation) indicated that a three factor solution best fit the data. The first factor consisted of three reward items and four comparison level items. This factor represents the positive aspects, or benefits of the relationship. The second factor is comprised of four barrier items and three investment items. Because irretrievable investments represent a type of constraint, this factor represents the concept of hindrances to leaving (hereafter referred to as hindrances). All cost items and three alternative items loaded significantly on the third factor. This factor appears to represent negative elements or deterrents of the relationship. The items that did not load on any factor are indicated in the Appendix. In addition to testing the original hypotheses, all of the hypotheses were tested a second time with the benefits, hindrances, and deterrents scales.
In order to assess whether there were gender differences in the individual characteristics, the Investment Model components, the three investment factors (benefits, hindrances and detriments), satisfaction and commitment, a multivariate analysis of variance (MANOVA) was conducted with gender as the independent variable. The MANOVA indicated that significant differences existed ($F=4.12$, $p<.001$); univariate F-tests (Table 3) indicated that women had greater empathic concern and causal attributions, fewer costs, and greater irretrievable investments. Given these differences, all hypotheses were tested separately for men and women. All of the reliabilities were rerun separately by gender (not shown). The alpha coefficients ranged from .61 to .97. For the barriers subscale, the alpha coefficient was .49 for women, so barriers was eliminated from all analyses for women.

Finally, Pearson product-moment correlations (not shown) revealed a strong relationship between satisfaction and commitment ($r=.93$, $p<.01$ for men, $r=.93$, $p<.01$ for women), which suggested that these scales in fact measured the same construct. Measures of satisfaction and commitment are generally considered to be dimensions of relationship quality (Bradbury, Fincham, & Beach, 2000; Myers & Booth, 1999). Thus, these scales were combined to form a single scale representing relationship quality, which was used in all further analyses. The internal consistency coefficient for this scale was .97. Similarly, the causal and responsibility attributions scales were highly correlated ($r=.72$, $p<.01$ for men, $r=.74$, $p<.01$ for women), and a composite attribution scale was used in all subsequent analysis. The internal consistency coefficient for this scale was .95.
Table 3. Distribution of Scores

<table>
<thead>
<tr>
<th>Individual Factors</th>
<th>Possible Range</th>
<th>Actual Range</th>
<th>Mean (SD)</th>
<th>Actual Range</th>
<th>Mean (SD)</th>
<th>F(1,193)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attributions</td>
<td>24-168</td>
<td>30-159</td>
<td>78.0(26.5)</td>
<td>24-161</td>
<td>83.9(31.7)</td>
<td>2.00</td>
</tr>
<tr>
<td>Distressed Partner Thinking</td>
<td>3-21</td>
<td>3-21</td>
<td>12.8(4.6)</td>
<td>3-21</td>
<td>12.0(4.8)</td>
<td>3.67</td>
</tr>
<tr>
<td>Empathic Concern</td>
<td>7-49</td>
<td>14-49</td>
<td>40.1(6.6)</td>
<td>24-49</td>
<td>41.6(5.7)</td>
<td>10.82**</td>
</tr>
<tr>
<td>Empathic Distress</td>
<td>7-49</td>
<td>7-46</td>
<td>19.5(7.2)</td>
<td>7-43</td>
<td>23.1(7.1)</td>
<td>.86</td>
</tr>
<tr>
<td>Optimism</td>
<td>8-56</td>
<td>8-56</td>
<td>41.0(8.8)</td>
<td>13-56</td>
<td>42.5(8.3)</td>
<td>2.02</td>
</tr>
<tr>
<td>Positive Behavior</td>
<td>5-35</td>
<td>5-35</td>
<td>26.8(6.9)</td>
<td>5-35</td>
<td>28.5(5.8)</td>
<td>3.51</td>
</tr>
<tr>
<td>Negative Behavior</td>
<td>6-42</td>
<td>7-37</td>
<td>22.0(6.4)</td>
<td>9-39</td>
<td>22.7(7.0)</td>
<td>.68</td>
</tr>
</tbody>
</table>

* p<.05, **p<.01
### Table 3. Distribution of Scores

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>F(1,193)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Possible Range</td>
<td>Actual Range</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td><strong>Investment Components</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rewards</td>
<td>4-28</td>
<td>4-28</td>
<td>24.3(4.5)</td>
</tr>
<tr>
<td>Costs</td>
<td>4-28</td>
<td>4-28</td>
<td>14.1(6.2)</td>
</tr>
<tr>
<td>Comparison Level</td>
<td>4-28</td>
<td>4-28</td>
<td>21.4(5.6)</td>
</tr>
<tr>
<td>Alternatives</td>
<td>4-28</td>
<td>4-28</td>
<td>9.4(5.5)</td>
</tr>
<tr>
<td>Investments</td>
<td>3-21</td>
<td>8-21</td>
<td>17.2(3.1)</td>
</tr>
<tr>
<td>Barriers</td>
<td>4-28</td>
<td>7-28</td>
<td>23.8(4.6)</td>
</tr>
<tr>
<td>Factor 1 Benefits</td>
<td>7-49</td>
<td>8-49</td>
<td>39.7(8.3)</td>
</tr>
<tr>
<td>Factor 2 Hindrances</td>
<td>7-49</td>
<td>21-49</td>
<td>41.1(6.1)</td>
</tr>
<tr>
<td>Factor 3 Detriments</td>
<td>7-49</td>
<td>7-49</td>
<td>21.8(9.4)</td>
</tr>
<tr>
<td><strong>Quality Factors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship Quality</td>
<td>10-70</td>
<td>10-70</td>
<td>61.8(13.3)</td>
</tr>
</tbody>
</table>

* p<.05, **p<.01
Hypothesis Testing

Hypothesis 1a stated that attributions will be negatively related to both satisfaction and commitment. This hypothesis was supported using the combined measure of relationship quality (see Table 4). Relationship quality was related to attributions in the predicted direction ($r = -.50, p<.01$ for men, $r = -.39, p<.01$ for women).

Hypothesis 1b, which stated that attributions will be (a) negatively related to rewards and comparison level, and (b) positively related to costs and alternatives, was supported. Attributions were found to be negatively related to rewards ($r = -.32, p<.01$ for men, $r = -.54, p<.01$ for women), and comparison level ($r = -.55, p<.01$ for men, $r = -.59, p<.01$ for women). Attributions were also positively related to costs for men and women ($r = .53, p<.01$, $r = .47, p<.01$, respectively) and alternatives ($r = .47, p<.01$, $r = .47, p<.01$, respectively). When the three investment factors were examined (Table 5), attributions were (a) negatively associated with benefits ($r = -.52, p<.01$ for men, $r = -.62, p<.01$ for women) and (b) positively associated with detriments ($r = .58, p<.01$ for men, $r = .53, p<.01$ for women). Hindrances were not significantly related to attributions.

Hypothesis 2a, which stated that distressed partner thinking will be negatively related to both satisfaction and commitment, was supported for men ($r = -.26, p<.01$). Hypothesis 2b stated that distressed partner thinking will be (a) negatively related to rewards and comparison level, and (b) positively related to costs and investments. This hypothesis was partially supported. Distressed partner thinking was negatively related to comparison level for men ($r = -.32, p<.01$) and (b) positively related to costs for women ($r = .36, p<.01$), but was not related to rewards or investments. In addition, for men,
Table 4. Correlation Coefficients for Individual Characteristics, Investment Model Components, and Relationship Quality

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Attributions</td>
<td>.21*</td>
<td>- .41**</td>
<td>.21*</td>
<td>- .32**</td>
<td>.34**</td>
<td>.30*</td>
<td>- .54**</td>
<td>.47**</td>
<td>- .59**</td>
<td>.47**</td>
<td>- .26**</td>
<td>- .39**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Partner Thinking</td>
<td>.33**</td>
<td>- .25**</td>
<td>.21*</td>
<td>- .20*</td>
<td>- .21*</td>
<td>.31**</td>
<td>- .21*</td>
<td>.36**</td>
<td>- .23*</td>
<td>.29**</td>
<td>- .06*</td>
<td>- .22*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Empathic Concern</td>
<td>- .34**</td>
<td>- .04</td>
<td>- .14</td>
<td>.16</td>
<td>.38**</td>
<td>- .28**</td>
<td>.31**</td>
<td>- .43**</td>
<td>.26**</td>
<td>- .39**</td>
<td>.23**</td>
<td>.29**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Empathic Distress</td>
<td>.27**</td>
<td>.36**</td>
<td>- .48**</td>
<td>- .52**</td>
<td>- .24*</td>
<td>.25**</td>
<td>- .03</td>
<td>.18</td>
<td>- .05</td>
<td>.18</td>
<td>- .13</td>
<td>- .13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Optimism</td>
<td>- .36**</td>
<td>- .23*</td>
<td>.61**</td>
<td>- .61**</td>
<td>.13</td>
<td>- .24**</td>
<td>.19*</td>
<td>- .27**</td>
<td>.32**</td>
<td>- .22*</td>
<td>.20*</td>
<td>.20*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Positive Behaviors</td>
<td>- .35**</td>
<td>- .23*</td>
<td>.20*</td>
<td>- .24*</td>
<td>.35**</td>
<td>- .39**</td>
<td>.17</td>
<td>- .24*</td>
<td>.23*</td>
<td>- .20*</td>
<td>.22*</td>
<td>.30**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Negative Behaviors</td>
<td>.41**</td>
<td>.26*</td>
<td>- .15</td>
<td>.21*</td>
<td>- .36**</td>
<td>- .25**</td>
<td>.06</td>
<td>.38**</td>
<td>- .17</td>
<td>.17</td>
<td>.07*</td>
<td>- .19*</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Investment Components</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Rewards</td>
<td>- .32**</td>
<td>- .08</td>
<td>.39**</td>
<td>- .22*</td>
<td>.33**</td>
<td>.41**</td>
<td>- .24*</td>
<td>.41**</td>
<td>.71**</td>
<td>- .60*</td>
<td>.49**</td>
<td>.34**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Costs</td>
<td>.53**</td>
<td>.27*</td>
<td>- .21*</td>
<td>.30**</td>
<td>- .34**</td>
<td>- .39**</td>
<td>.25*</td>
<td>- .37**</td>
<td>- .47**</td>
<td>.59**</td>
<td>- .03</td>
<td>- .29**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Comparison Level</td>
<td>- .55**</td>
<td>- .32**</td>
<td>.42**</td>
<td>- .43**</td>
<td>.55**</td>
<td>.55**</td>
<td>- .47**</td>
<td>.63**</td>
<td>- .52**</td>
<td>- .46**</td>
<td>.34**</td>
<td>.46**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Alternatives</td>
<td>.47**</td>
<td>.12</td>
<td>- .36**</td>
<td>.38**</td>
<td>- .43**</td>
<td>- .50**</td>
<td>.35**</td>
<td>- .61**</td>
<td>.54**</td>
<td>- .64**</td>
<td>- .31**</td>
<td>- .35**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Investments</td>
<td>- .15</td>
<td>- .07</td>
<td>.43**</td>
<td>- .35**</td>
<td>.49**</td>
<td>.37**</td>
<td>- .17</td>
<td>.54**</td>
<td>- .17</td>
<td>.49**</td>
<td>- .45**</td>
<td>.29**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Barriers</td>
<td>- .25*</td>
<td>- .03</td>
<td>.55**</td>
<td>- .33**</td>
<td>.34**</td>
<td>.04</td>
<td>- .08</td>
<td>.42**</td>
<td>- .13</td>
<td>.29**</td>
<td>- .31**</td>
<td>.34**</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Quality Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Relationship Quality</td>
<td>- .50**</td>
<td>- .26**</td>
<td>.57**</td>
<td>- .38**</td>
<td>.44**</td>
<td>.24*</td>
<td>- .35**</td>
<td>.54**</td>
<td>- .39**</td>
<td>.61**</td>
<td>- .52**</td>
<td>.34**</td>
<td>.49**</td>
<td></td>
</tr>
</tbody>
</table>

Note: Correlations above the diagonal represent women, below the diagonal represent men
* p<.05, ** p<.01
Table 5. Correlation Coefficients for Individual Characteristics, Investment Model Factors, and Relationship Quality

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Attributions</td>
<td>.21*</td>
<td>-.41**</td>
<td>.21*</td>
<td>-.32**</td>
<td>-.34**</td>
<td>.30**</td>
<td>-.62**</td>
<td>-.11</td>
<td>.53**</td>
<td>-.39**</td>
<td></td>
</tr>
<tr>
<td>2. Partner Thinking</td>
<td>.33**</td>
<td>-.25**</td>
<td>.21*</td>
<td>-.20*</td>
<td>-.21*</td>
<td>.31**</td>
<td>-.24*</td>
<td>-.00</td>
<td>.36**</td>
<td>-.22*</td>
<td></td>
</tr>
<tr>
<td>3. Empathic Concern</td>
<td>-.34**</td>
<td>-.04</td>
<td>-.14</td>
<td>.16</td>
<td>.38**</td>
<td>-.28**</td>
<td>.29**</td>
<td>.23*</td>
<td>-.46**</td>
<td>.29**</td>
<td></td>
</tr>
<tr>
<td>4. Empathic Distress</td>
<td>.27**</td>
<td>.36**</td>
<td>-.48**</td>
<td>.52**</td>
<td>-.24*</td>
<td>.25**</td>
<td>-.03</td>
<td>-.04</td>
<td>.19*</td>
<td>-.13</td>
<td></td>
</tr>
<tr>
<td>5. Optimism</td>
<td>-.36**</td>
<td>-.23*</td>
<td>.61**</td>
<td>-.61**</td>
<td>.13</td>
<td>-.24**</td>
<td>.29**</td>
<td>.10</td>
<td>-.27**</td>
<td>.20**</td>
<td></td>
</tr>
<tr>
<td>6. Positive Behaviors</td>
<td>-.35**</td>
<td>-.23*</td>
<td>.20*</td>
<td>-.24*</td>
<td>.35**</td>
<td>-.39**</td>
<td>.22*</td>
<td>.08</td>
<td>-.23*</td>
<td>.30**</td>
<td></td>
</tr>
<tr>
<td>7. Negative Behaviors</td>
<td>.41**</td>
<td>.26*</td>
<td>-.15</td>
<td>.21*</td>
<td>-.36**</td>
<td>-.25**</td>
<td>-.09</td>
<td>.18</td>
<td>.32**</td>
<td>-.19</td>
<td></td>
</tr>
<tr>
<td><strong>Investment Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Factor 1 (Benefits)</td>
<td>-.52**</td>
<td>-.26**</td>
<td>.43**</td>
<td>-.37**</td>
<td>.51**</td>
<td>.56**</td>
<td>-.42**</td>
<td>.35**</td>
<td>-.54**</td>
<td>.43**</td>
<td></td>
</tr>
<tr>
<td>9. Factor 2 (Hindrances)</td>
<td>-.17</td>
<td>-.01</td>
<td>.57**</td>
<td>-.34**</td>
<td>.39**</td>
<td>.15</td>
<td>-.07</td>
<td>.44**</td>
<td>-.13</td>
<td>.14</td>
<td></td>
</tr>
<tr>
<td>10. Factor 3 (Detriments)</td>
<td>.58**</td>
<td>.24**</td>
<td>-.33**</td>
<td>.37**</td>
<td>-.44**</td>
<td>-.50**</td>
<td>.32**</td>
<td>-.64**</td>
<td>-.30**</td>
<td>.33**</td>
<td></td>
</tr>
<tr>
<td><strong>Quality Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Relationship Quality</td>
<td>-.50**</td>
<td>-.26**</td>
<td>.57**</td>
<td>-.38**</td>
<td>.44**</td>
<td>.24*</td>
<td>-.35**</td>
<td>.64**</td>
<td>.46**</td>
<td>-.48**</td>
<td>-.52**</td>
</tr>
</tbody>
</table>

Note: Correlations above the diagonal represent women, below the diagonal represent men

* p<.05, **p<.01
distressed thinking was negatively associated with benefits (r = -.26, p < .01), and positively related to detriments (r = .24, p < .01). For women, such cognitions were positively related to detriments (r = .36, p < .01).

Hypothesis 3a stated that empathic concern will be positively related to satisfaction and commitment. Empathic concern, as predicted, was associated with greater relationship quality for both men and women (r = .57, p < .01, r = .29, p < .01, respectively). Hypothesis 3b, which stated that empathic concern will be (a) positively related to rewards, investments and barriers, and (b) negatively related to costs, was also supported. Empathic concern was (a) positively associated with rewards (r = .39, p < .01), investments (r = .43, p < .01), and barriers (r = .55, p < .01) for men. Women’s concern was associated with (a) greater rewards (r = .31, p < .01) and (b) fewer costs (r = .43, p < .01).

When examining the three investment factors, empathic concern was also found to be (a) positively related to benefits (r = .43, p < .01 for men, r = .29, p < .01 for women) and hindrances (r = .57, p < .01 for men only) and (b) negatively related to detriments (r = -.33, p < .01 for men, r = -.46, p < .01 for women).

Hypothesis 4a, which stated that empathic distress will be negatively related to satisfaction and commitment, was supported for men (r = -.38, p < .01) but not for women. Hypothesis 4b stated that empathic distress will be (a) negatively related to rewards and comparison level, and (b) positively related to costs. Distress was found to be (a) negatively associated with comparison level (r = -.43, p < .01), and (b) positively associated with costs (r = .30, p < .01) for males only. Empathic distress was associated with fewer benefits and hindrances for men (r = -.37, p < .01; r = -.34, p < .01, respectively), and greater
detriments for men ($r=.37, p<.01$). Thus, Hypothesis 4b was partially supported for men only.

Hypothesis 5a stated that optimism will be positively related to satisfaction and commitment. Optimism was related to relationship quality ($r=.44, p<.01$) for men only. Hypothesis 5b stated that optimism will be (a) positively related to rewards, investments, comparison level and barriers, and (b) negatively related to costs. This hypothesis was partially supported by the data. Optimism was associated with greater rewards ($r=.33, p<.01$), investments ($r=.49, p<.01$), and barriers ($r=.34, p<.01$). Optimism was negatively related to costs for both sexes ($r=-.34, p<.01$ for men, $r=-.27, p<.01$ for women). Men and women’s optimism was found to be associated with greater benefits ($r=.51, p<.01$, $r=.29, p<.01$, respectively) and fewer detriments ($r=-.44, p<.01$, $r=-.27, p<.01$, respectively). Optimism was associated with greater hindrances for men only ($r=.39, p<.01$).

Hypothesis 6a, which stated that positive behaviors will be positively related to satisfaction and commitment, was partially supported. For women, positive behaviors were related to relationship quality in the expected direction ($r=.30, p<.01$), but not for men.

Hypothesis 6b stated that positive behaviors will be (a) positively related to rewards, and (b) negatively related to costs, alternatives, and barriers. Men’s positive behaviors were associated with greater rewards ($r=.41, p<.01$) and fewer costs ($r=-.39, p<.01$) and alternatives ($r=-.50, p<.01$). This behavior was associated with greater benefits ($r=.56, p<.01$) and fewer detriments ($r=-.50, p<.01$) for men. Hindrances were
not related to positive behaviors for males or females. Hypothesis 6b was also partially supported.

Hypothesis 7a stated that negative behaviors will be negatively related to both satisfaction and commitment. Relationship quality was inversely related to negative behaviors for men ($r = -0.35, p<0.01$), demonstrating partial support for this hypothesis.

Hypothesis 7b, which stated that negative behaviors will be (a) positively related to costs, alternatives, and barriers, and (b) negatively related to rewards, was partially supported. Negative behaviors were associated with greater costs for women ($r = 0.38, p<0.01$), and greater alternatives for men ($r = 0.35, p<0.01$). Rewards and barriers were not significantly related to negative behaviors. Negative behaviors were related to fewer benefits only for men ($r = -0.42, p<0.01$), and greater detriments for both men and women ($r = 0.32, p<0.01, r = 0.32, p<0.01$, respectively). Hindrances were not related to negative behaviors.

Hypothesis 8 stated that rewards, comparison level, investments and barriers will be positively related to satisfaction and commitment; and that costs, and alternatives will be negatively related to satisfaction and commitment. This hypothesis was fully supported using the measure of relationship quality. Quality was positively related to rewards ($r = 0.54, p<0.01$ for men, $r = 0.34, p<0.01$ for women), comparison level ($r = 0.61, p<0.01$ for men, $r = 0.46, p<0.01$ for women), and investments ($r = 0.34, p<0.01$ for men, $r = 0.29, p<0.01$ for women). Quality was negatively associated with costs ($r = -0.39, p<0.01$ for men, $r = -0.29, p<0.01$ for women) and alternatives ($r = -0.52, p<0.01$ for men, $r = -0.35, p<0.01$ for
<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Independent Variable</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a-</td>
<td>Attributions</td>
<td>quality*</td>
</tr>
<tr>
<td>1b-</td>
<td>Attributions</td>
<td>costs*, alternatives*, rewards*, comparison level*,</td>
</tr>
<tr>
<td>2a-</td>
<td>Partner Thinking</td>
<td>quality* (men only)</td>
</tr>
<tr>
<td>2b-</td>
<td>Partner Thinking</td>
<td>costs* (women only), investments rewards, comparison level* (men only)</td>
</tr>
<tr>
<td>3a-</td>
<td>Empathic Concern</td>
<td>quality* (men only)</td>
</tr>
<tr>
<td>3b-</td>
<td>Empathic Concern</td>
<td>rewards*, investments* (men only), barriers* (men only)</td>
</tr>
<tr>
<td>4a-</td>
<td>Empathic Distress</td>
<td>quality* (men only)</td>
</tr>
<tr>
<td>4b-</td>
<td>Empathic Distress</td>
<td>costs* (men only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>rewards, comparison level* (men only)</td>
</tr>
<tr>
<td>5a-</td>
<td>Optimism</td>
<td>quality* (men only)</td>
</tr>
<tr>
<td>5b-</td>
<td>Optimism</td>
<td>rewards* (men only), investments* (men only), comparison level*, barriers* (men only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>costs*</td>
</tr>
<tr>
<td>6a-</td>
<td>Positive Behaviors</td>
<td>quality* (women only)</td>
</tr>
<tr>
<td>6b-</td>
<td>Positive Behaviors</td>
<td>rewards* (men only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>costs* (men only), alternatives* (men only), barriers</td>
</tr>
<tr>
<td>7a-</td>
<td>Negative Behaviors</td>
<td>quality (men only)</td>
</tr>
<tr>
<td>7b-</td>
<td>Negative Behaviors</td>
<td>costs* (women only), alternatives* (men only), barriers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>rewards</td>
</tr>
<tr>
<td>8-</td>
<td>Quality</td>
<td>rewards*, comparison level*, investments*, barriers* (men only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>costs*, alternatives*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>105</td>
</tr>
</tbody>
</table>
Table 7. Results of Hypotheses 1-8 for Three Factor Model

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Independent Variable</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a-</td>
<td>Attributions</td>
<td>quality*</td>
</tr>
<tr>
<td>1b-</td>
<td>Attributions</td>
<td>detriments*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>benefits*</td>
</tr>
<tr>
<td>2a-</td>
<td>Partner Thinking</td>
<td>quality* (men only)</td>
</tr>
<tr>
<td>2b-</td>
<td>Partner Thinking</td>
<td>detriments*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>benefits* (men only)</td>
</tr>
<tr>
<td>3a-</td>
<td>Empathic Concern</td>
<td>quality* (men only)</td>
</tr>
<tr>
<td>3b-</td>
<td>Empathic Concern</td>
<td>benefits*, hindrances* (men only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>detriments*</td>
</tr>
<tr>
<td>4a-</td>
<td>Empathic Distress</td>
<td>quality* (men only)</td>
</tr>
<tr>
<td>4b-</td>
<td>Empathic Distress</td>
<td>detriments* (men only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>benefits* (men only), hindrances* (men only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(men only)</td>
</tr>
<tr>
<td>5a-</td>
<td>Optimism</td>
<td>quality* (men only)</td>
</tr>
<tr>
<td>5b-</td>
<td>Optimism</td>
<td>benefits*, hindrances* (men only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>detriments*</td>
</tr>
<tr>
<td>6a-</td>
<td>Positive Behaviors</td>
<td>quality* (women only)</td>
</tr>
<tr>
<td>6b-</td>
<td>Positive Behaviors</td>
<td>benefits* (men only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>detriments* (men only)</td>
</tr>
<tr>
<td>7a-</td>
<td>Negative Behaviors</td>
<td>quality (men only)</td>
</tr>
<tr>
<td>7b-</td>
<td>Negative Behaviors</td>
<td>detriments*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>benefits* (men only)</td>
</tr>
<tr>
<td>8-</td>
<td>Quality</td>
<td>benefits*, hindrances* (men only)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>detriments*</td>
</tr>
</tbody>
</table>
women). The relationship between quality and barriers was only tested for men, and was significant ($r = .49, p < .01$).

Hypothesis 9 stated that the association between personal characteristics and (a) satisfaction and (b) commitment will be mediated by the Investment Model Factors. According to Baron and Kenny (1986), mediation can be tested by a series of three regressions. The steps for mediation testing are summarized in Figure 1. In step one, each mediator ($B$) is individually regressed on the group of independent factors ($A$). In step two, the dependent factor ($C$) is regressed on the group of independent factors ($A$). In step three, the dependent factor ($C$) is regressed on both the group of independent factors and the group of mediators together. Baron and Kenny (1986) argued that partial mediation will exist if the degree of association between the independent ($A$) and dependent ($C$) factors is less in step three than in step two. Full mediation occurs when the relationship between the independent and dependent factors is no longer significant after the addition of the mediating factors.

The test of mediation was conducted separately by gender. In step one (path $A \rightarrow B$) for men, each mediating factor ($B =$ rewards, costs, comparison level, alternatives, investments and barriers) was individually regressed on the group of independent variables ($A =$ attributions, distressed partner thinking, empathic concern, empathic distress, optimism, and positive and negative behaviors). The independent variables were entered simultaneously into the equation as a group to control for multicolinearity. For men, the combination of ($A$) individual characteristics predicted a significant amount of
the variance on each of (B) the Investment Model components ($R^2 = .30$ to $.57$; see Table 8).

In step two (path A–C), relationship quality (C) was regressed on the group of individual characteristics (A). The combination of the individual characteristics explained 49% of the variance in men’s relationship quality (Table 10, top half, first column). Attributions and empathic concern emerged as significant predictors of quality ($\beta = -.23, p<.01$, and $\beta = .53, p<.01$, respectively), independent of the combined effects of the other individual characteristics. In step three (path A + B – C), relationship quality (C) was regressed on the individual characteristics (A) together with the mediating factors (B) (Table 10, bottom half, first column). Collectively the individual and mediating factors accounted for 60% of the variance in men’s marital quality.

Based on previous research, it might have been expected that the Investment Model components would have emerged as unique predictors of quality. Given, however, that these components were moderately correlated with each other (see Table 5), they likely shared some variance. Compared to the second regression, the beta values indicated that the relationship between attributions and quality was no longer significant. Further, the relationship between empathic concern and quality remained significant, but the beta value was reduced (from $\beta = .53, p<.01$ to $\beta = .34, p<.01$). Given that the degree of association between these independent factors (attributions, empathic concern) and the dependent factor (relationship quality) was lessened when the mediators (Investment Model components) were entered into the equation, these findings provided evidence for mediation. That one personal factor was still significantly related to quality suggests that
<table>
<thead>
<tr>
<th></th>
<th>Rewards</th>
<th>Costs</th>
<th>Comparison Level</th>
<th>Alternatives</th>
<th>Investments</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attributions</td>
<td>-.08</td>
<td>.42**</td>
<td>-.22*</td>
<td>.23*</td>
<td>.16</td>
<td>-.12</td>
</tr>
<tr>
<td>Partner Thinking</td>
<td>.06</td>
<td>.02</td>
<td>-.06</td>
<td>-.14</td>
<td>.04</td>
<td>.04</td>
</tr>
<tr>
<td>Empathic Concern</td>
<td>.32*</td>
<td>.08</td>
<td>.19</td>
<td>-.14</td>
<td>.25*</td>
<td>.52**</td>
</tr>
<tr>
<td>Empathic Distress</td>
<td>.03</td>
<td>.10</td>
<td>-.03</td>
<td>.18</td>
<td>-.02</td>
<td>-.05</td>
</tr>
<tr>
<td>Optimism</td>
<td>-.02</td>
<td>-.12</td>
<td>.12</td>
<td>.02</td>
<td>.27*</td>
<td>.01</td>
</tr>
<tr>
<td>Positive Behaviors</td>
<td>.33**</td>
<td>-.21*</td>
<td>.31**</td>
<td>-.39**</td>
<td>.28*</td>
<td>-.07</td>
</tr>
<tr>
<td>Negative Behaviors</td>
<td>-.11</td>
<td>-.03</td>
<td>-.21*</td>
<td>.16</td>
<td>-.05</td>
<td>.02</td>
</tr>
</tbody>
</table>

Rewards-R² = .30** for men
Costs-R² = .37** for men
Comparison Level-R² = .57** for men
Alternatives-R² = .46** for men
Investments-R² = .34** for men
Barriers-R² = .35** for men
* p<.05, **p<.01
<table>
<thead>
<tr>
<th></th>
<th>Rewards</th>
<th>Costs</th>
<th>Comparison Level</th>
<th>Alternatives</th>
<th>Investments</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attributions</td>
<td>-.41**</td>
<td>.24*</td>
<td>-.47**</td>
<td>.28*</td>
<td>-.03</td>
<td></td>
</tr>
<tr>
<td>Partner Thinking</td>
<td>-.23*</td>
<td>.28**</td>
<td>-.17</td>
<td>.24*</td>
<td>.04</td>
<td>.18</td>
</tr>
<tr>
<td>Empathic Concern</td>
<td>.12</td>
<td>-.19*</td>
<td>-.06</td>
<td>-.21*</td>
<td>.18</td>
<td></td>
</tr>
<tr>
<td>Empathic Distress</td>
<td>.14</td>
<td>-.08</td>
<td>.22*</td>
<td>.04</td>
<td>-.05</td>
<td></td>
</tr>
<tr>
<td>Optimism</td>
<td>.17</td>
<td>-.08</td>
<td>.30*</td>
<td>-.01</td>
<td>.19</td>
<td></td>
</tr>
<tr>
<td>Positive Behaviors</td>
<td>.17</td>
<td>-.05</td>
<td>.15</td>
<td>-.10</td>
<td>.26*</td>
<td></td>
</tr>
<tr>
<td>Negative Behaviors</td>
<td>-.28*</td>
<td>.26*</td>
<td>.04</td>
<td>-.03</td>
<td>.27*</td>
<td></td>
</tr>
</tbody>
</table>

Rewards: $R^2 = .39**$ for women  
Costs: $R^2 = .47**$ for women  
Comparison Level: $R^2 = .44**$ for women  
Alternatives: $R^2 = R^2 = .33**$ for women  
Investments: $R^2 = .18**$ for women

* $p<.05$, **$p<.01$
Table 10. Regression of Relationship Quality on Individual Characteristics and Investment Model Components

<table>
<thead>
<tr>
<th>Variable</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE.B</td>
</tr>
<tr>
<td><strong>Step 2- Quality on Individual Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attributions</td>
<td>-.12</td>
<td>.05</td>
</tr>
<tr>
<td>Partner Thinking</td>
<td>-.41</td>
<td>.25</td>
</tr>
<tr>
<td>Empathic Concern</td>
<td>1.05</td>
<td>.21</td>
</tr>
<tr>
<td>Empathic Distress</td>
<td>-.06</td>
<td>.19</td>
</tr>
<tr>
<td>Optimism</td>
<td>-.15</td>
<td>.17</td>
</tr>
<tr>
<td>Positive Behavior</td>
<td>-.03</td>
<td>.16</td>
</tr>
<tr>
<td>Negative Behavior</td>
<td>-.33</td>
<td>.18</td>
</tr>
<tr>
<td><strong>Step 3- Quality on Individual Characteristics and Investment Components</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attributions</td>
<td>-.06</td>
<td>.05</td>
</tr>
<tr>
<td>Partner Thinking</td>
<td>-.46</td>
<td>.24</td>
</tr>
<tr>
<td>Empathic Concern</td>
<td>.68</td>
<td>.22</td>
</tr>
<tr>
<td>Empathic Distress</td>
<td>.02</td>
<td>.18</td>
</tr>
<tr>
<td>Optimism</td>
<td>-.16</td>
<td>.17</td>
</tr>
<tr>
<td>Positive Behavior</td>
<td>-.30</td>
<td>.17</td>
</tr>
<tr>
<td>Negative Behavior</td>
<td>-.19</td>
<td>.18</td>
</tr>
<tr>
<td>Rewards</td>
<td>.47</td>
<td>.32</td>
</tr>
<tr>
<td>Costs</td>
<td>-.10</td>
<td>.21</td>
</tr>
<tr>
<td>Comparison Level</td>
<td>.43</td>
<td>.31</td>
</tr>
<tr>
<td>Alternatives</td>
<td>-.39</td>
<td>.30</td>
</tr>
<tr>
<td>Investments</td>
<td>-.24</td>
<td>.41</td>
</tr>
<tr>
<td>Barriers</td>
<td>.56</td>
<td>.27</td>
</tr>
</tbody>
</table>

Step 2- $R^2=.49**$ for men, $R^2=.24**$ for women, Step 3- $R^2=.60**$ for men, $R^2=.40**$ for women
direct effects existed as well. Thus, these results suggested partial mediation, and provided partial support for hypothesis 9.

For women, step one (path A–B) involved regressing each (B) Investment Model component (with the exception of barriers) individually on (A) the group of individual characteristics. Each Investment Model component was predicted by the combination of individual characteristics ($R^2 = .18$ to $.47$, see Table 9). Step two (path A–C), in which relationship quality (C) was regressed on the individual characteristics (A), accounted for 24% of the variance in relationship quality. This regression (Table 10, top half, second column) revealed that attributions was a significant predictor of relationship quality ($\beta = -.29, p<.01$) independent of the effects of other independent factors.

In step three (path A + B – C), relationship quality (C) was regressed on the combination of (A) individual characteristics and (B) Investment Model components (sans barriers). This combination accounted for 40% of the variance in quality. When the mediating variables (Investment Model Components) were added, the relationship between attributions and quality was no longer significant (Table 10, bottom half, second column). Because this association became nonsignificant when the investment variables were added to the equation, the individual-quality relationship was fully mediated. Hence, hypothesis 9 was fully supported for women.

Hypothesis 9 was tested a second time using the Investment Model factors (benefits, detriments, and hindrances) in place of the Investment Model components (rewards, costs, comparison level, alternatives, investments, and barriers). As can be seen in Table 11, step one (path A–B) indicated that men’s individual characteristics (A)
accounted for a significant proportion of variance in (B) benefits \( (R^2 = .53) \), hindrances \( (R^2 = .36) \), and detriments \( (R^2 = .50) \). Given step two (path A–C) was identical to step two in the first analysis (Table 13, top half, column one), those findings will not be repeated here. Step 3 (path A+B – C), however, included Investment Model Factors (Table 13, bottom half, first column) as the mediating factors in the regression, generating slightly different results. More specifically, the combination of (B) Investment Model factors and (A) individual characteristics accounted for 59% of the variance in (C) relationship quality, and benefits emerged as a significant predictor \( (\beta = .37, p < .01) \) even when variance from the other mediating factors was controlled. Comparing the beta values from step two and step three, the relationship between attributions and quality was no longer significant, and the relationship between empathic concern and quality was reduced (from \( \beta = .53, p < .01 \) to \( \beta = .37, p < .01 \)). The change in association suggested that attributions indirectly contributed to relationship quality, while the direct effects of empathic concern were retained. These findings, then, support partial mediation in the context of the Investment Model factors (Figure 3).

Repeating step 1 (path A–B) for women (see Table 12), the individual characteristics (A) accounted for unique variance in (B) benefits \( (R^2 = .48) \) and detriments \( (R^2 = .51) \). Again, the results of step two (path A–C) were identical to the analysis reported previously (Table 13, top half, second column). In step three (path A + B – C), the combination of independent (A) and mediating (B) factors accounted for 38% of the variance in (C) quality. Similar to the findings for men, benefits emerged as a significant predictor of quality in this final equation \( (\beta = .49, p < .01) \). Compared to step 2, the results
Table 11. Regression of Investment Model Factors on Individual Characteristics (β) for Men

<table>
<thead>
<tr>
<th></th>
<th>Factor 1 Benefits</th>
<th>Factor 2 Hindrances</th>
<th>Factor 3 Detriments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attributions</td>
<td>-.21*</td>
<td>.02</td>
<td>.38**</td>
</tr>
<tr>
<td>Partner Thinking</td>
<td>-.02</td>
<td>.05</td>
<td>-.03</td>
</tr>
<tr>
<td>Empathic Concern</td>
<td>.23*</td>
<td>.53**</td>
<td>-.02</td>
</tr>
<tr>
<td>Empathic Distress</td>
<td>.00</td>
<td>-.03</td>
<td>.12</td>
</tr>
<tr>
<td>Optimism</td>
<td>.09</td>
<td>.08</td>
<td>-.10</td>
</tr>
<tr>
<td>Positive Behaviors</td>
<td>.35**</td>
<td>.06</td>
<td>-.33**</td>
</tr>
<tr>
<td>Negative Behaviors</td>
<td>-.18*</td>
<td>.03</td>
<td>.03</td>
</tr>
</tbody>
</table>

Benefits- $R^2 = .53**$ for men
Hindrances- $R^2 = .36**$ for men
Detriments- $R^2 = .50**$ for men

* p<.05, **p<.01
Table 12. Regression of Investment Model Factors on Individual Characteristics (β) for Women

<table>
<thead>
<tr>
<th></th>
<th>Factor 1 Benefits</th>
<th>Factor 2 Hindrances</th>
<th>Factor 3 Detriments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attributions</td>
<td>-.49**</td>
<td>.13</td>
<td>.30**</td>
</tr>
<tr>
<td>Partner Thinking</td>
<td>-.20</td>
<td>.03</td>
<td>.30**</td>
</tr>
<tr>
<td>Empathic Concern</td>
<td>.00</td>
<td>.30**</td>
<td>-.22**</td>
</tr>
<tr>
<td>Empathic Distress</td>
<td>.22*</td>
<td>-.03</td>
<td>-.03</td>
</tr>
<tr>
<td>Optimism</td>
<td>.29**</td>
<td>.15</td>
<td>-.05</td>
</tr>
<tr>
<td>Positive Behaviors</td>
<td>.17*</td>
<td>.17</td>
<td>-.07</td>
</tr>
<tr>
<td>Negative Behaviors</td>
<td>.13</td>
<td>.32**</td>
<td>.15</td>
</tr>
</tbody>
</table>

Benefits- R²=.48** for women
Hindrances- R²=.16* for women
Detriments- R²=.51** for women

* p<.05, **p<.01
Table 13. Regression of Relationship Quality on Individual Characteristics and Investment Model Factors

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE B</td>
</tr>
<tr>
<td><strong>Step 2- Quality on Individual</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attributions</td>
<td>-.12</td>
<td>.05</td>
</tr>
<tr>
<td>Partner Thinking</td>
<td>-.41</td>
<td>.25</td>
</tr>
<tr>
<td>Empathic Concern</td>
<td>1.05</td>
<td>.21</td>
</tr>
<tr>
<td>Empathic Distress</td>
<td>-.06</td>
<td>.19</td>
</tr>
<tr>
<td>Optimism</td>
<td>-.15</td>
<td>.17</td>
</tr>
<tr>
<td>Positive Behavior</td>
<td>-.03</td>
<td>.16</td>
</tr>
<tr>
<td>Negative Behavior</td>
<td>-.33</td>
<td>.18</td>
</tr>
<tr>
<td><strong>Step 3- Quality on Individual</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Characteristics and Investment Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attributions</td>
<td>-.07</td>
<td>.05</td>
</tr>
<tr>
<td>Partner Thinking</td>
<td>-.39</td>
<td>.23</td>
</tr>
<tr>
<td>Empathic Concern</td>
<td>.73</td>
<td>.22</td>
</tr>
<tr>
<td>Empathic Distress</td>
<td>-.04</td>
<td>.18</td>
</tr>
<tr>
<td>Optimism</td>
<td>-.22</td>
<td>.17</td>
</tr>
<tr>
<td>Positive Behavior</td>
<td>-.33</td>
<td>.17</td>
</tr>
<tr>
<td>Negative Behavior</td>
<td>-.19</td>
<td>.17</td>
</tr>
<tr>
<td>Factor 1 (Benefits)</td>
<td>.60</td>
<td>.18</td>
</tr>
<tr>
<td>Factor 2 (Hindrances)</td>
<td>.29</td>
<td>.20</td>
</tr>
<tr>
<td>Factor 3 (Detriments)</td>
<td>-.11</td>
<td>.16</td>
</tr>
</tbody>
</table>

Step 2- $R^2=.49^{**}$ for men, $R^2=.24^{**}$ for women
Step 3- $R^2=.59^{**}$ for men, $R^2=.38^{**}$ for women
* p<.05, **p<.01
of step 3 (Table 13, bottom half, second column) indicated that the association between (C) relationship quality and (A) attributions was no longer significant, indicating that full mediation, and the premise of hypothesis 9 was supported (Figure 4).

Overall, several important findings emerged from this study. The individual characteristics were generally related to the Investment Model components in the expected directions. These findings supported Rusbyt and Arriaga’s (1997) argument that thought and affect create an interpersonal paradigm through which investment components are processed. Finally, it was found that the Investment Model factors partially mediated the relationship between the individual characteristics and relationship quality. The mediational model exhibited one exception, as direct effects remained between males’ empathic concern and quality. Thus, empathic concern may play a unique role in marital dynamics for men.
Figure 3. Results of Hypothesis 9 for Men

* Only significant betas are reported

** Values in Parentheses represent changed beta values in step three (A+B-C) of the regression
Figure 4. Results of Hypothesis 9 for Women

*Only significant betas are reported

** Values in parentheses represent changed beta values in step three (A + B - C) of the regression
CHAPTER V
DISCUSSION

This study extends the literature on marriage by examining the associations between personal characteristics and relationship quality in the context of a salient theoretical framework: the Investment Model. The study further adds to the field by integrating two lines of research (namely personality and Investment Model) that have been generally disparate to date. The mediating relationships identified in this study suggested that the interplay between these factors had a significant role in marital quality, and highlighted the value of such research.

Interpretation of Findings

Investment Factors

As previously noted, a three factor model of investment components was detected as a best fit for the data. Such a model had not been reported in previous research. The first factor (benefits) was a combination of rewards and comparison level items. The items from this comparison level scale appear to reflect some degree of benefit derived from the relationship (e.g., "My current relationship comes close to matching what I consider to be my ideal relationship"). This may explain the commonality of variance between these two variables. The results of the hypothesis testing using the factors reveals very similar patterns to the results from the rewards and comparison level components individually. For example, a negative relationship was found between
attributions and both rewards and comparison level. Benefits were related to attributions in the same fashion.

A similar pattern seems to have occurred with Factor 3 (detriments). The alternative items appeared to reflect an individual's negativity toward the relationship (e.g., "As an alternative to my current relationship, I would like to date someone else"). The willingness to date others implies that a relationship was unfulfilling or aversive in some ways, which is similar to the construct of costs. As with Factor 1, a pattern emerged in which costs and alternatives were related, in most instances, to the same characteristics (e.g., attributions, empathic distress, optimism) in the same direction. Detriments were related to individual characteristics in a consistent manner.

Factor 2 (hindrances) consists of barriers and alternatives. According to Rusbult (1983), investments increase the commitment to a relationship, because they represent a constraint to terminating the relationship. The investment measure is not a global measure of barriers, but it does represent a type of barrier (Rusbult & Buunk, 1993). It makes sense, then, that it shares variance with the more global measure of barriers. Similar to the constructs in Factor 1, it appears that barriers and investments were related to the personal characteristics in very similar ways. For example, both barriers and investments were related to empathic concern and empathic distress for men only. This pattern of relationships emerged as well when correlations were conducted with hindrances. The three factor model suggested that there is conceptual overlap between several of the Investment Model components, but benefits, hindrances and detriments represent three distinct factors. Although these factors are interrelated, they each
appeared to tap into unique domains of the investment processes. This paralleled the past findings on positive and negative behaviors. More specifically, Reis and Gable (2000) reported that positive and negative behaviors are functionally independent. Similarly, the three factor model indicated that benefits and detriments are somewhat independent, and represent more than extremes on a continuum.

Cognitive Factors

Given that the findings across the correlations and regressions were fairly similar, the interpretation will focus on the results of the final regression tables (Tables 7 and 8) to limit redundancy. This analysis indicated that attributions were positively associated with detriments for men and women. In addition, distressed partner thinking was negatively related to detriments for women only. Given that both types of cognitions are distress maintaining in nature (Cate et al., 1995; Fincham & Bradbury, 1992), they would likely contribute to the experience of marriage as more aversive or unpleasant. These findings are consistent with Cate et al.’s (1995) report that distressed thinking was associated with dater’s perceptions of relational interactions as negatively valenced.

Further, attributions were negatively related to benefits for women only. Women carry greater responsibilities and have fewer rewards in marriage than men (Thompson & Walker, 1991), so they might be more sensitized to the status of their relationship, and more affected by decreases in benefits. Thus, although men may perceive such decreases as benign, women may be likely to assign greater meaning to decreases in benefits because they perceive them as an indication that their husbands are less caring and
considerate of partner needs. This is consistent with Cate et al.'s (1995) finding that women tend to engage in more distressed partner thinking than men. Under these conditions, it is not surprising that women might focus more on husband accountability for aversive actions (i.e., attributions).

For both men and women, attributions were indirectly related to marital quality. Thus, it was through the association to the Investment Model factors that attributions contributed to quality. Distressed partner thinking did not contribute to quality in either regression. These findings contrast past research on attributions (Fincham & Bradbury, 1991) and distressed partner thinking (Cate et al., 1995) that found that these cognitions were directly related to relationship quality. These studies, however, did not examine cognition's association with Investment Model factors. Thus, they may have provided an incomplete understanding of the role of cognitions in the context of other relational factors.

Affective Factors

The affective factor of empathic concern was also related to the Investment factors. Empathic concern was positively related to hindrances for both men and women. Empathic distress was not significantly related to any of the investment factors. The results on empathic concern supported the hypothesized relationships. These findings are consistent with Davis & Oathout (1987), who reported that empathic concern was related to indices of negative relationship functioning (e.g., untrustworthiness, insensitivity behaviors). As the emotional effort involved with demonstrating empathic concern
towards a partner is irretrievable were the relationship to dissolve, empathic concern
would be related to hindrances. Thus, spouses who feel more affective concern and
caring for their partner might be more likely to feel invested and obligated to remain in
the relationship.

Empathic concern was negatively related to detriments for women only. Women
are traditionally socialized to be more concerned with maintenance, and to demonstrate
more responsiveness in relationships (Hendrick & Hendrick, 1992; Vangelisti & Daly,
1997). As such, it follows that women who consider the relationship to be more aversive
would feel less concern for their partner. Men might be less likely to be view a lack of
concern as a detriment, as concern may not be a key factor in evaluating relationship
components.

Similarly, women who are optimistic are likely to see more benefits to the
relationship. In the present study, the optimism measure was specific to the marriage,
suggesting that this reflects a positive relational experience rather than a global
disposition. It is not surprising that women who perceive their marriages to be rewarding
have prosocial affect. These findings support Murray and Holmes (1999) argument that
positive orientations are associated with more desireable relationship dynamics and
functioning.

Empathic concern was related both directly and indirectly to relationship quality
for men. For men, empathic concern was highly associated with quality, and this
relationship was only partially mediated by the Investment Model factors. Thus, care and
concern for wives contributed to husbands’ sense that they have made a substantial
investment in their relationships which, in turn, contributes to their perception of quality. At the same time, the experience of a satisfying relationship may in some ways be uniquely pleasant for men and enhance their interest in their spouses. It is also possible that men who are higher on empathic concern have a greater relationship oriented paradigm, which facilitates a wide range of affective experiences that contribute to relationship functioning. Men with such a paradigm may be particularly appreciated by women, and thus be in higher quality relationships (due to congruence of goals and desired outcomes with their spouses). Davis and Oathout (1987) also reported indirect relationships between empathic concern, relational behaviors, and relationship satisfaction. No research to date has, however, examined the relationship between empathic concern and relationship quality using the Investment Model factors as mediators. The current study indicated that such an analysis can be particularly fruitful.

Behavioral Factors

For men, the positive behaviors were associated with greater benefits and fewer detriments. Thus, when the marriage has a pleasant atmosphere, husbands were more likely to behave in prosocial ways. This is consistent with gender role arguments that men traditionally utilize behaviors to express such qualities as intimacy and closeness to their partners (Thompson & Walker, 1991).

For women, hindrances were positively related to negative behaviors, although benefits and detriments were unrelated to behavior. Benefits and detriments may be more central to women’s affect or thought, but hindrances may play a unique role in women’s
behaviors. That is, wives' perceptions that they are confined by marriage and would find it difficult to leave may promote more aversive actions. Weigel and Ballard-Reisch (1999) suggested that there is a societal tendency of women to be more relationship oriented, and to adjust to their partners' behaviors in the marriage. If such accommodation is presumed, then women's negative behaviors might be unexpected, and an effective way to indicate their experience of hindrances to their husbands. Behavior has been tested as a mediating factor before, but less often tested as an independent factor in the context of other mediating factors. No mediating relationships were detected in the present study, but such relationships are worthy of further investigation.

Benefits

The final regression equation indicated that benefits were positively related to relationship quality, after all other predictors were controlled. This supports previous Investment Model research that rewards and comparison level (the components of Factor 1) have been consistently found to be related to relationship quality (Duffy & Rusbult, 1986; Rusbult et al., 1986). The findings on comparison level are less clear, as it is not consistently included in investment research. Those studies that have investigated comparison level (Kurdek, 1995; Rusbult, 1983; Rusbult & Martz, 1995) have found mixed results, possibly because of disparate measurements of the construct. The one study that did assess comparison level using the same measure as was used in this research (Kurdek, 1995) found a positive relationship between comparison level and

126
commitment. The findings from this study lend support to the salience of benefits in predicting relationship quality. In sum, it was in their contributions to Investment Model components that most of the individual characteristics affected marital functioning. Attributions were fully mediated and empathic concern was partially mediated in its association with relationship quality. This is consistent with Cate et al.'s (1995) argument that there exists a distal context. This context is composed of a number of cognitive and affective structures (individual characteristics). Such characteristics influence the way we perceive and experience our relationships (proximal context), which in turn influence relationship quality. Hence, the mediational model tested in this study supports this conceptual model, and highlights the importance of such multidomain research.

**Strengths and Weaknesses**

**Strengths**

There were several strengths to this study. First, this study used a broader range of personal characteristics than had been previously examined in relation to the Investment Model, and examined personal characteristics from cognitive, affective and behavioral domains. Past research has commonly focused on only one category of intrapersonal characteristic variables (e.g., Bradbury & Fincham, 1991; Cate et al., 1995; Davis & Oathout, 1987; Huston & Vangelisti, 1991). By examining three types of intrapersonal factors simultaneously, we better understand their relative roles in interpersonal functioning. In addition, two variables from each of the categories were
examined, providing a more global understanding of how these domains were associated with marital dynamics.

Another strength of the current study is the sample. A great deal of research on relationship processes focuses on undergraduate respondents, a technique which limits generalizability. From a Family Development perspective, we understand that relationships undergo qualitative changes as they develop, and the processes that shape intimate relationships at one stage of development may not be the same processes that govern at a later stage (Hill & Rogers, 1964). Given that undergraduate students are typically experiencing relationships at an early stage of development, the knowledge gained from such research cannot be assumed to accurately reflect the process of marriage in middle adulthood. Thus, the present study collected data from members of the community and reflects the experiences of spouses at the middle stage of family life. This allows the investigation of relationship processes for an understudied sample, and broadens the field’s knowledge of marital dynamics.

A final strength of this study is the use of a salient theoretical model to guide research. The use of a framework to generate meaningful hypotheses does more to add to current knowledge than mere exploratory research. The scientific process involves both the testing of theory through the deductive process, and the refinement of theory through induction. The Investment Model has been tested repeatedly and found to be a relevant theoretical framework for studying relationships. Repeated studies have demonstrated the utility of the Investment Model in understanding the processes related to satisfaction and commitment (Lin & Rusbult, 1995; Lund, 1985; Rusbult, 1983). The current study
extended previous research by examining the integration of individual and investment processes in marital quality. This study has both strengthened a theoretical perspective through applying it to previously unexamined areas, and served to further refine the theoretical perspective. In this way, this research has advanced the scientific study of relationships.

Although the Investment Model has previously demonstrated utility in describing relationship processes, this research adds to our confidence in the model. Further, new direction for application of the model has been provided. The three factor model of Investment components has not been previously reported. The occurrence of this phenomenon in a single sample does not merit a shift in thinking with regard to the Investment Model, but it may suggest that further investigation of these factors is merited.

Weaknesses

Although this research does have multiple strengths, there are a number of limitations which should be noted. First, the respondents were recruited by undergraduate students, and did not represent a random sampling of community members. It is possible that recruiters selected individuals who appeared to be in stable, satisfied marriages, and such individuals would be more likely to participate. This may represent a self-selection bias, generating a restricted range of satisfaction and commitment scores for this sample. This restricted range would explain the high correlation between these two variables.
It is possible that satisfaction and commitment are more unique phenomena for spouses with disparate marital experiences (e.g., high satisfaction/low commitment or low satisfaction/high commitment). Further, there might be different patterns of association among the individual, Investment Model, and quality variables among maritally disparate respondents. For example, barriers might play a more central role in marital dynamics for low satisfaction/high commitment respondents. Similarly, positive behaviors be uniquely valued by high satisfaction/low commitment spouses. Such patterns could be assessed with a large, random sample.

There are also limitations to the method that was employed. This study used self-report measures, which are subject to certain weaknesses. The goal of this study was to expeditiously gather anonymous data from approximately three hundred individuals, so it was the most appropriate method. There are, however, some inherent risks of this method (e.g., misunderstanding instructions). To minimize such risks, the questionnaire and information sheet was piloted with a small group of individuals who demographically paralleled (e.g., married, middle aged) the final sample. These individuals provided the feedback about the study materials and minor changes were made prior to distribution to the sample. In addition, the study participants were given information about how to contact the researchers if they had any questions or comments. Only 0.5% of the respondents requested clarification.

Data collection was limited to a single point in time. Under this condition, variables may be found to covary, but conclusions cannot be drawn about the direction of effect. For example, it is possible that acting in prosocial ways promotes positive...
feelings about the relationship, and enhances the perception of quality. It is just as possible, however, that an individual is motivated to behave in prosocial ways because she/he is satisfied with the relationship. Although the Investment Model suggests causal pathways (Rusbult & Buunk, 1993), it cannot be proven using correlational data.

Finally, there are limitations pertaining to measurement. The measures of satisfaction and commitment shared too much variance, and were essentially indistinguishable in this sample. This suggested that these measures, although reliable, do not tap into separate constructs as their names would imply. Satisfaction and commitment are conceptually distinct (Thibaut & Kelly, 1959), and the measures are expected to be related, but should vary uniquely. In designing this study, other measures of satisfaction and commitment were considered and rejected (Hendrick, 1988; Duffy & Rusbult, 1986; 1983). These measures were multidimensional in nature, and may have tapped into many of the elements of satisfaction and commitment in relationships. The difficulty with these measures for this study, however, was that multidimensional measures employed some items which appeared very similar to the components of the Investment Model. To use such measures would be to evaluate the relationship between two variables with conceptual overlap. Hence, more unidimensional measures were employed.

The six scales that measured the components of the Investment Model appear to have similar measurement problems. The factor analysis and subsequent reliability test of the factors indicated that there was significant measurement overlap between the subscales for this sample, and a three factor solution (benefits, detriments and hindrances)
best fit the data. In addition, the barriers subscale had low internal consistency for
two women. The literature suggested that the six original components of were conceptually
distinct, but the distinctions may not be clear for married individuals. Kurdek's (1995)
measure of the Investment Model components is a general one. It is possible that in their
generality, the measures tapped into less of the variability in each of the constructs.
Given that most Investment Model studies fail to assess all six components
simultaneously (e.g., Rusbult et al., 1991), it is unknown whether these current findings
are idiosyncratic to this sample, or represent a more pervasive measurement issue.

**Directions for Future Research**

Future research may improve on the current study in a number of ways. First,
further investigation of the validity of the measures of satisfaction and commitment is
warranted. Based on the prevalence of the use of these measures, it seems appropriate
that we evaluate the way relationship quality is conceptualized and measured. For
example, Johnson, Caughlin, and Huston (1999) proposed the tripartite model of
commitment (personal, moral and structural). The personal component is most frequently
assessed, but they argued that the other components are equally important, and have a
central role in relationship stability over time. Such a multidimensional approach to the
measurement of relationship quality factors will enhance our understanding of marriage.

A similar difficulty existed with the measures of the Investment Model
components. As previously discussed, the current measurement of the components failed
to support the six-component model, so further refinement of the measure is indicated. It
is possible that the very general measures of these constructs do not tap into the complete range of variance that actually exists. For example, the general measure of rewards merely asks respondents the degree to which they feel their relationship is rewarding. It may be more effective to assess the specific nature and relative value of rewards in marital relationships. Other measures of Investment Model components exist (such as investments, costs, and rewards), and specifically measure some components (Lund, 1986; Rusbult et al., 1985; Sedikides, Oliver, & Campbell, 1994) but fail to measure all six components delineated by the model. Further testing and analysis of each component will enhance Investment Model research.

Another future direction for research would be the examination of investment processes in relation to individual factors that were not examined in this study. For example, gender roles may be a factor that influences these processes. Vangelisti and Daly (1997) argued that men and women can be viewed as socialized to two unique cultures of relationships, such that they experience relationships with contrasting expectations, roles, behaviors, and perceptions. It is then possible that there exist significant differences in ways that traditional males, traditional females, and androgynous spouses experience investment processes. For example, a traditional male may perceive high levels of affection to be costly in a relationship, whereas an androgynous male may view such affect as rewarding. An examination of gender identity would have broad implications for the study of personal relationships.

Sampling could be improved by the use of a random community sample with proportionate subgroups that reflect ethnic, age, sexual orientation, and SES diversity.
Comparative research would clarify similarities and differences in relational experiences. For example, Kurdek (2000) reported that attractions (a combination of rewards, costs, comparison level, and alternatives) and constraints (a combination of investments and barriers) were related to commitment over time in consistent ways for gay, lesbian, and heterosexual couples. Such research, however, is limited by global assessment of Investment Model components. It is possible that detailed assessment with diverse samples would delineate different patterns of association.

Although the correlational data in this study lends support to the theoretical perspective, it does not provide information about changes over time. Thus, this research would be improved by a longitudinal design. Such a design would explicate the relative contributions of factors to marital quality. It is possible, for example, that the deleterious nature of attributions is cumulative over the years, and has a stronger association with satisfaction in later marriage. Thus, longitudinal studies would enhance our understanding of the long-term consequences of personal characteristics and relational investments. Understanding these processes is necessary to the study of relationship development.

Another improvement would be the use of multi-method designs. Multiple assessment methods help to validate the constructs that are measured using self-report instruments (e.g., Carmines & Zeller, 1979). For example, observing the actual frequency of socioemotional behavior adds an outsider’s perspective that expands the understanding of marital dynamics. Such observation also provides detailed data that is often not captured in questionnaires. Similarly, if researchers were to study these relationship
characteristics using face-to-face interviews, they would have the opportunity to ask specific follow-up questions if respondents raise interesting issues (e.g., McCabe & Barnett, 2000). This additional data would provide a more complete picture of marital functioning.

This research studied only one individual from each married couple. The Investment Model is generally concerned with the individual and their own perception of satisfaction within the relationship (Rusbult & Buunk, 1993). It is true, however, that relationship development is a reciprocal process, and in order to more fully understand these processes, data from both spouses could be collected. It is possible, for example, that a husband’s investments are a significant contributor to a wife’s perception of relationship quality. Recent research examined spousal differences in commitment. For example, Drigotas, Rusbult and Verete (1999) assessed couple well-being in terms of their level of dependence (measured as the level of commitment that one spouse exhibited relative to the other). Couples with congruent levels of commitment were better adjusted than those with disparate commitment, suggesting a pattern of mutual influence among partners. Thus, it is likely that the integration of personal characteristics research and Investment Model research would be enhanced by studying both of the spouses in a couple relationship.

Finally, other theoretical models might be used to guide research. For example, a study of these factors from a family development theory perspective would enhance our understanding of how these dynamics change over time. Family development theory focuses on the changes that families must undergo as they move throughout the life
course (Hill & Rogers, 1964). As families experience new stages of family life, they must learn new developmental tasks. The addition of the skills to achieve these tasks alter family functioning from one stage to another, such that functioning may be qualitatively different at each stage. Thus, spouses with young children might experience different (in both type and degree) costs than spouses with adolescents, or childfree spouses. Similarly, newly married spouses may differ from older spouses in their experience of empathic concern. Also, it would be interesting to see how barriers change over time, and how these factors are related to relationship satisfaction and longevity from a family development perspective.

In sum, this research has broadened the study of personal relationships in several ways. In doing so, the literature on the Investment Model was expanded by introducing factors that had not been previously studied in its context. This research was an important step in testing an established theoretical perspective, which adds to the validity of the model and demonstrates its usefulness in explaining previously untested variables. In addition, the literature on several cognitive, affective and behavioral individual characteristics was enhanced by examining the relationships between these variables and relationship quality from a theoretical perspective. The mediating processes that were identified emphasize the importance of continued integrative research to more fully understand the complexity of marital relationships.
REFERENCES


143


APPENDIX A

INSTRUCTIONS FOR STUDENT RECRUITERS
Instructions for Student Recruiters

We are conducting a study about relationship dynamics in marriage. This study will help us to better understand the characteristics which affect personal relationships. In order for us to evaluate marital dynamics, it is necessary to contact members of the community who are currently married. We would like to ask your assistance in recruiting these individuals to participate in this study.

In order to do this, you need to identify married individuals whom you know and ask each person if she/he would be willing to fill out a questionnaire. Any individual is eligible to participate, as long as they are currently married.

You need to provide the following information to each person:

A) Information from the questionnaire will be kept anonymous, and no one will be able to identify them with their answers. We will not be able to return or delete the information they provide, nor will we be able to provide information about their answers to their spouses.

B) Their participation is voluntary. They may withdraw from the study at any time, and skip any questions that they feel are intrusive or personal.

C) This is not a relationship quiz, and there are no right or wrong answers, so they may be open and honest in their responses.

D) They should read the information sheet before completing the questionnaire.

E) They should complete the questionnaire independently (spouses should not consult one another on their answers) and seal it in the envelope provided.

F) The surveys should be sent directly to us through the mail. You will have no further contact with the questionnaires after you distribute them.

Thank you for your assistance with this matter. If you should have any questions on this matter, you may contact me, Duane Alan Dowd at (806) 866-0225 (duanedowd@yahoo.com) or my faculty supervisor, Dr. Jacki Fitzpatrick, HDFS Department at (806) 742-3000 x. 263.
APPENDIX B

INFORMATION SHEET
INFORMATION SHEET

We would like for you to participate in a study about romantic relationships and marriage. In order to participate, you must be 18 years of age or older, and are either currently or have previously been in a romantic relationship. You would not be eligible to participate if you are younger than 18 years of age, and/or have never been in a romantic relationship.

If you decide to participate, you will be asked to complete a questionnaire which includes questions about you and your relationship. Some questions ask for information about you as an individual, other questions ask about your relationship with a spouse or romantic partner, and some ask about your family. We ask that you complete this questionnaire by yourself and do not ask your partner for answers to questions. The survey should only take about 15-20 minutes of your time.

Your responses will be anonymous, so we ask that you DO NOT put your name on the questionnaire. The only individuals who will have access to the questionnaires will be Duane Alan Dowd, graduate student doctoral candidate, Dr. Jacki Fitzpatrick, faculty sponsor, and members of Dr. Fitzpatrick's research team. This is not a relationship or personality "quiz" - you will not be given a personal score or any feedback. Your questionnaire will be combined with the responses of all other participants so that we may identify general trends in relationship experiences. This may help us to better understand how close personal relationships work.

Your participation is voluntary, so you may withdraw from this study at any time without penalty. Once you have turned in your completed questionnaire, however, we cannot identify any individual participant, so we would be unable to return/delete the information that you have provided. We also cannot provide any information about your partners' responses.

Given that we are asking questions about naturally occurring characteristics of relationships, we anticipate that this study presents minimal, if any, risk to you. Should you have any questions about this study, you may contact Dr. Jacki Fitzpatrick, HDFS Department at (806) 742-3000 x. 263 or the Texas Tech University Institutional Review Board for the Protection of Human Subjects by writing to them in care of the Office of Research Services, Texas Tech University, Lubbock, TX 79409 or by calling (806) 742-3884. Further information about these matters may be obtained by contacting Dr. Robert M. Sweazy, Vice Provost for Research, (806) 742-3884, Room 203 Holden Hall, Texas Tech University, Lubbock, TX 79409-1035.
APPENDIX C

QUESTIONNAIRE
Did you read and agree to the letter of introduction? If No, do not answer any more questions. If yes, please fill out the rest of this form.

We would like for you to answer the following questions about yourself and your relationship. Your answers are completely anonymous, so no one will know how you personally responded. There are no right or wrong answers, so please be as honest and accurate as possible. If a question is confusing or you are not sure of your answer, please answer to the best of your ability. Thank you for your participation.

Please answer the questions on this page by filling in the blank or placing an X in the space next to your response.

How old are you? ____years

How old is your partner? ____years

Are you a man or a woman?

____man
____woman

Is your partner a man or a woman?

____man
____woman

What is your racial/ethnic background?
___White/ Euro-American
___Asian American
___Hispanic/ Latino American
___Black/ African American
___American Indian/ Native American
___Multiracial
___Other (please describe)_____________

What is your partner's racial/ethnic background?
___White/ Euro-American
___Asian American
___Hispanic/ Latino American
___Black/ African American
___American Indian/ Native American
___Multiracial
___Other (please describe)_____________

What level of education have you completed?____________________

What level of education has your partner completed?__________________
What is your CURRENT relationship status? (PICK ONLY ONE)

_____ Single, not exclusively dating
 How long have you been dating? ___ years ___ months

_____ Single, exclusively dating
 How long have you been dating? ___ years ___ months
 How long were you together before you were exclusively dating? ___ years ___ months

_____ Engaged
 How long have you been engaged? ___ years ___ months
 How long were you together before you became engaged? ___ years ___ months

_____ Married (for the first time)
 How long have you been married? ___ years ___ months
 How long were you together before you married? ___ years ___ months

_____ Divorced
 How long were you married? ___ years ___ months
 How long were you together before you married? ___ years ___ months

_____ Widowed
 How long were you married? ___ years ___ months
 How long were you together before you married? ___ years ___ months

_____ Remarried
 How long have you been remarried? ___ years ___ months
 How long were you together with your current spouse before you remarried? ___ years ___ months

_____ Living Together Unmarried
 How long have you been cohabitating? ___ years ___ months
 How long were you together before you became cohabiters? ___ years ___ months

Do you have children from any relationship?  Yes ____  No ____
 If YES, how many children do you have? ____
 What is each child's age?  ____  ____  ____  ____  ____  ____

If you ARE NOT currently in a relationship, please answer all further questions about your MOST RECENT relationship.
If you ARE currently in a relationship, please answer all further questions about this relationship.
Next, we would like to learn more about your relationship. These statements describe how people might perceive their relationships. Please circle the number that indicates the extent to which you agree with each statement, using the scale below.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. In uncertain times, I usually expect the best
2. I think about whether my partner feels the same about me as I do about him/her
3. Before criticizing my partner, I try to imagine how I would feel if I were in his/her place
4. When I see my partner being taken advantage of, I feel kind of protective of him/her
5. I think about the memories I have of our relationship
6. When I see that my partner badly needs help in an emergency, I go to pieces
7. If something can go wrong for me, it will
8. I wonder how well I get along with my partner's family
9. If I'm sure I'm right about something, I don't waste much time listening to my partner's arguments
10. When I see my partner being treated unfairly, I sometimes don't feel much pity for him/her
11. I wonder about how close my partner feels toward me
12. I sometimes feel helpless when I am in the middle of a very emotional situation
13. I always look on the bright side of things
14. I think about all the fun my partner and I have together
15. I sometimes try to understand my partner better by imagining how things look from her/his perspective
I often have tender, concerned feelings for people less fortunate than me.

I wonder about how well I my partner and my friends will get along.

In emergency situations, I feel apprehensive and ill-at-ease.

I am always optimistic about my future.

*I reflect on whether I am being treated fairly/ unfairly in our relationship.

I believe there are two sides to every question and try to look at them both.

I would describe myself as a pretty soft-hearted person.

I reflect on how much I love my partner.

I am usually pretty effective at dealing with emergencies.

I hardly ever expect things to go my way.

I wonder about how well I will get along with my partner's friends.

I sometimes find it difficult to see things from my partner's point of view.

Sometimes I don't feel sorry for my partner when he/she has problems.

I wonder about how my partner feels about our relationship.

Being in a tense, emotional situation scares me.

Things never work out the way I want them to.

*I think about all of the experiences that my partner and I have shared together.

I try to look at my partner's side of a disagreement before I make a decision.
<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>My partner's misfortunes do not usually disturb me a great deal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>When I get hurt, I tend to remain calm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>I believe that &quot;every cloud has a silver lining&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>I wonder about how well my partner and my family will get along</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>When I'm upset at my partner, I usually try to &quot;put myself in his/her shoes for a while&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>I am often quite touched by things that I see happen</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>I tend to lose control during emergencies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>I rarely count on good things happening to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I reflect on how much my partner loves me
Now we'd like to learn more about your relationship. Please circle the number that indicates how much you agree with each statement, using the scale below.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly</td>
<td>Agree</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

**Strongly Agree**

1. **One advantage to my relationship is having someone to count on**
2. I give up a lot to be in my relationship
3. My current relationship comes close to matching what I would consider to be my ideal relationship
4. As an alternative to my current relationship, I would like the freedom to do what I want whenever I want to do it
5. **I've put a lot of energy and effort into my relationship**
6. It would be difficult to leave my partner because of the emotional pain involved
7. **One advantage of my relationship is that it provides me with companionship**
8. I have to sacrifice a lot to be in my relationship
9. My current relationship provides me with an ideal amount of affection and companionship
10. **As an alternative to my current relationship, I would like to date someone else**
11. *A part of me is tied up in my relationship*
12. It would be difficult to leave my partner because I would still feel attached to them
13. One advantage to my relationship is being able to share affection
14. It takes a lot for me to be in my relationship
15. My current relationship provides me with an ideal amount of equality in the relationship

As an alternative to my current relationship, I would like to
find other ways to occupy my time

I have invested a part of myself in my relationship

I would find it difficult to leave my partner because I would feel obligated to keep the relationship together

Overall, I derive a lot of rewards and advantages from being in my relationship

Overall, there are a lot of personal costs involved in my relationship

Overall, there is not much difference between my current relationship and my ideal relationship

Overall, alternatives to being in my relationship are appealing

Overall, I'd say I have a lot invested in my relationship

Overall, there are many things that prevent me from ending my relationship
This section describes several things that your partner might do. Imagine your partner performing each behavior, and then read the statements that describes how you might perceive her/his behavior. Please circle the number that indicates how much you agree with each statement, using the scale below.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

**Your partner begins to spend less time with you:**

1. My partner's behavior was due to something about them (e.g. the type of person they are, the mood they are in)
2. The reason my partner spends less time with me is not likely to change
3. The reason my partner spends less time with me is something that affects other areas of our relationship
4. My partner spends less time with me on purpose rather than unintentionally
5. My partner's behavior was motivated by selfish rather than unselfish concerns
6. My partner deserves to be blamed for spending less time with me

**Your partner does not pay attention to what you are saying:**

1. My partner ignored me on purpose rather than unintentionally
2. My partner's behavior was motivated by selfish rather than unselfish concerns
3. My partner deserves to be blamed for ignoring me
4. My partner's behavior was due to something about them (e.g. the type of person they are, the mood they are in)
5. The reason my partner ignored me is not likely to change
6. The reason my partner ignored me is something that affects other areas of our relationship

**Your partner is cool and distant:**
My partner's behavior was motivated by selfish rather than unselfish concerns.

My partner deserves to be blamed for being cool and distant.

The reason my partner is cool and distant is something that affects other areas of our relationship.

My partner is cool and distant on purpose rather than unintentionally.

My partner's behavior was due to something about them (e.g. the type of person they are, the mood they are in).

The reason my partner is cool and distant is not likely to change.

Your partner criticizes something you say:

My partner criticized me on purpose rather than unintentionally.

The reason my partner criticized me is something that affects other areas of our relationship.

My partner's behavior was motivated by selfish rather than unselfish concerns.

My partner's behavior was due to something about them (e.g. the type of person they are, the mood they are in).

My partner deserves to be blamed for criticizing me.

The reason my partner criticized me is not likely to change.
This section describes several things that your partner might do. Please circle the number that indicates how frequently your partner engages in each behavior, using the scale below.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Frequently</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2 3 4 5 6 7</td>
<td>My partner approves of or compliments me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2 3 4 5 6 7</td>
<td>My partner seems bored or disinterested</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2 3 4 5 6 7</td>
<td>My partner makes me laugh</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2 3 4 5 6 7</td>
<td>My partner dominates the conversation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2 3 4 5 6 7</td>
<td>My partner says &quot;I Love you&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2 3 4 5 6 7</td>
<td>My partner shows anger or impatience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2 3 4 5 6 7</td>
<td>My partner says something nice to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2 3 4 5 6 7</td>
<td>My partner criticizes or complains</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2 3 4 5 6 7</td>
<td>My partner talks to me about the days events</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2 3 4 5 6 7</td>
<td>My partner fails to do something that I ask</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2 3 4 5 6 7</td>
<td>My partner does things that annoy me (e.g. habits)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This section describes several things that you might do with your partner. Please circle the number that indicates how frequently you engage in each behavior, using the scale below.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Frequently</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2 3 4 5 6 7</td>
<td>I approve of or compliment my partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2 3 4 5 6 7</td>
<td>I show boredom or disinterest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2 3 4 5 6 7</td>
<td>I make my partner laugh</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2 3 4 5 6 7</td>
<td>I dominate the conversation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2 3 4 5 6 7</td>
<td>I say &quot;I Love you&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>I show anger or impatience</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>I say something nice to my partner</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>I criticize or complain</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>I talk to my partner about the days events</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>I fail to do something that my partner asks</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>I do things that annoy my partner (e.g. habits)</td>
</tr>
</tbody>
</table>
Please answer the following questions about your relationship by circling the number that best indicates the extent to which you agree with each statement, using the scale below.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>1 2 3 4 5 6 7</td>
<td>I am committed to maintaining my relationship with my partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td></td>
<td>I am satisfied with my relationship</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5 6 7</td>
<td>Because of my commitment to my partner, I would not let other people come between us</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5 6 7</td>
<td>I have confidence in the stability of my relationship with my partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5 6 7</td>
<td>I am satisfied with my partner in his/her role as my partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5 6 7</td>
<td>I view my commitment to my partner as a solid one</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5 6 7</td>
<td>I cannot imagine ending my relationship with my partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5 6 7</td>
<td>I am satisfied with my relationship with my partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5 6 7</td>
<td>I plan to continue my relationship with my partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5 6 7</td>
<td>Even when my partner is hard to deal with, I remain committed to our relationship</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please answer the following question about your relationship by circling the number that best indicates the extent to which each statement is true, using the scale below.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Very Likely</td>
<td>1 2 3 4 5 6 7</td>
<td>How likely is it that you will still be in your relationship six months from now?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extremely Likely</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please answer the following questions about your relationship by circling the number that best indicates the extent to which you love and need your partner, using the scale below.

1 2 3 4 5 6 7
1 Very Little 2 Very Much

1 2 3 4 5 6 7 To what extent do you love your partner at this stage?
1 2 3 4 5 6 7 How much do you need your partner at this stage?

Below are a number of relationship characteristics. Please circle the number that best describes your relationship over the past two months.

1 2 3 4 5 6 7
1 Miserable 2 Enjoyable
1 Hopeful 2 Discouraging
1 Empty 2 Full
1 Interesting 2 Boring
1 Rewarding 2 Disappointing
1 Worthwhile 2 Useless
1 Doesn't Give me much Chance 2 Brings out the Best in Me

Using this scale, please indicate how satisfied or dissatisfied you have been with your relationship over the past 2 months.

1 2 3 4 5 6 7
1 Completely Dissatisfied 2 Completely Satisfied
These statements describe how people might perceive their relationships. Please circle the number that indicates how much you agree with each statement, using the scale below.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 2 3 4 5 6 7 Being married helps you feel good about yourself
1 2 3 4 5 6 7 Getting a divorce violates your religious beliefs
1 2 3 4 5 6 7 You would feel bad about getting a divorce because you promised your partner you would stay with him/her forever
1 2 3 4 5 6 7 Whenever you promise to do something, you should see it through
1 2 3 4 5 6 7 It's alright to get a divorce if things are not working out
1 2 3 4 5 6 7 You could never leave your partner because she/he needs you too much
1 2 3 4 5 6 7 It's important to stand by what you believe in
1 2 3 4 5 6 7 You really like being a husband/wife
1 2 3 4 5 6 7 If a couple works hard at making their marriage succeed and still cannot get along, divorce is the best thing that they can do
1 2 3 4 5 6 7 It would be difficult to tell your partner that you wanted a divorce
1 2 3 4 5 6 7 You feel that you should always finish what you start
1 2 3 4 5 6 7 When you agree to get married, you are morally bound to stay married
1 2 3 4 5 6 7 You could never leave your partner because you would feel guilty about letting him/her down
1 2 3 4 5 6 7 Even when things get hard, you should do the things you have promised to do

163
The following statements reflect how you might feel if you were to break up with your partner. Please circle the number that indicates how much you agree with each statement, using the scale below.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strongly Agree</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Strongly Disagree</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**If you were to break up with your partner:**

1 2 3 4 5 6 7 You would be disappointed in yourself because you had broken a sacred vow
1 2 3 4 5 6 7 You would miss important income, Insurance, or other property
1 2 3 4 5 6 7 You would be upset because you would lose your place or standing in the community
1 2 3 4 5 6 7 It would be hard to work out who would get what property
1 2 3 4 5 6 7 You would miss the sense of being a couple
1 2 3 4 5 6 7 You would miss just having somebody around
1 2 3 4 5 6 7 You would be upset because your family would be uncomfortable with your breaking up
1 2 3 4 5 6 7 It would be hard for you to find a new place to live
1 2 3 4 5 6 7 You would lose all the time you had put into the marriage
1 2 3 4 5 6 7 You would miss living in your house
1 2 3 4 5 6 7 You would be upset because your in-laws would be uncomfortable with your breaking up
1 2 3 4 5 6 7 Having to move your things would be a burden
1 2 3 4 5 6 7 You would feel like all the effort you had put into keeping the two of you together had been wasted
1 2 3 4 5 6 7 You would miss the help you get around the house from having a partner

164
1 2 3 4 5 6 7 You would be upset because you would lose some respect from friends
1 2 3 4 5 6 7 Dealing with the legal system would be difficult
1 2 3 4 5 6 7 You would lose money you had put into the marriage
1 2 3 4 5 6 7 You would miss being able to see your child/children regularly
1 2 3 4 5 6 7 It would be difficult to face your friends and family after you broke up
1 2 3 4 5 6 7 It would be hard to work out who would get the kid(s)
1 2 3 4 5 6 7 You would feel like you wasted the best years of your life
1 2 3 4 5 6 7 You would not have to work around the house so much
You would lose some of your child/children's love
It would be awfully difficult to do the things necessary to get a divorce

Next, we would like to learn more about your family. Please circle the number that indicates how much you agree with each statement, using the scale below.

<table>
<thead>
<tr>
<th>strongly agree</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>In life, family interests are the most important</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>Family celebrations are the most important events during one's life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>A family should have one joint budget</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>Children should not be an embarrassment to their parents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>The highest thing that a person can do in life is to dedicate himself/herself to her/his family</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>The most important decisions in a person's life should be made within the family circle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>Children should not create worry for their parents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 2 3 4 5 6 7</td>
<td>In life, the interests of one's family are the most important</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

165
Finally, we'd like to learn more about your relationship history. Please **PICK ONLY ONE** of the following questions.

If you are NOT MARRIED or NOT REMARRIED, are you currently living with your relationship partner? ___Yes ___No

If you are MARRIED or REMARRIED, did you and your partner live together before you were married? ___Yes ___No

If you answered NO, please stop here. If you answered YES, please circle the number that best indicates the reason that you FIRST BEGAN living together (please pick only one).

1. While we had no plans to marry, we felt that we could save money on rent, utilities, etc by sharing a single residence

2. While we did not plan to marry, we felt that we loved each other and wanted to spend more time together

3. We wanted to see whether we would be compatible for a relationship someday, and thought that living together would be a good way to test that

4. We had already decided to marry, and did not see the point in being apart in the meantime

5. We had no intention of ever marrying, and thought we would just live together as an alternative

THANK YOU FOR YOUR PARTICIPATION.

* Item was dropped from analyses to enhance reliability

**Item did not load significantly on any of the three Investment Model factors