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Previous research has demonstrated that the transition to parenthood is a time of change for couples during which marital satisfaction generally declines; however, not all couples experience declines in marital satisfaction during this time. Given that family-of-origin experiences are thought to lay the foundation for adults' experiences in their close interpersonal relationships, the purpose of the current study was to examine remembered parental rejection during childhood as a predictor of individual differences in trajectories of change in marital satisfaction across the transition to parenthood. Drawing upon the Vulnerability-Stress-Adaptation perspective, marital aggression was considered as a mediating mechanism to better understand the process by which remembered rejection influences change in marital satisfaction. Additionally, the extent to which infant negative emotionality moderates the association between remembered parental rejection and both aggressive strategies to resolve conflict and change in marital satisfaction was examined. In an effort to extend theory and build upon previous research, both self- and partner-remembered parental rejection and aggressive conflict strategies were considered as predictors of change in marital satisfaction.

Hypotheses were examined using data drawn from a study of family relationships across the transition to parenthood. Results demonstrated that there was significant variation around wives' but not husbands' trajectories of change in marital satisfaction across the transition to parenthood. Remembered parental rejection was not linked with change in wives' marital satisfaction across the transition to parenthood, independently or

in conjunction with infant negative emotionality. In contrast, husbands' remembered maternal rejection was negatively associated with husband's marital satisfaction at six months postpartum, but only among husbands' whose infants were high on negative emotionality. Wives' remembered paternal rejection was negatively associated with husbands' marital satisfaction at six months postpartum. Infant negative emotionality was a significant negative predictor of wives' change in marital satisfaction across the transition to parenthood. There was no evidence of marital aggression as a mediating mechanism.

MARITAL SATISFACTION ACROSS THE TRANSITION TO PARENTHOOD:  
A VULNERABILITY-STRESS-ADAPTATION PERSPECTIVE

by

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For Jeff. Thank you for your unwavering love and support.

APPROVAL PAGE

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# CHAPTER I

## INTRODUCTION

### Background and Significance

The transition to parenthood is a time of change for couples. With the arrival of the first child, couples experience change in their everyday activities (Claxton & Perry-Jenkins, 2008), patterns of interaction (Kluwer & Johnson, 2007), and personal well-being (Keeton, Perry-Jenkins, & Sayer, 2008). In the face of these changes, spouses' evaluations of marital satisfaction tend to decline in a linear fashion across the transition to parenthood (Lawrence, Rothman, Cobb, Rothman, & Bradbury, 2008). Although the average trajectory of change in marital satisfaction across the transition to parenthood paints a negative picture of the experiences of first-time parents, not all parents experience declines in marital satisfaction during this time (Belsky & Kelley, 1994; Lawrence et al., 2008). Some individuals experience no change and even increases in satisfaction across the transition to parenthood (Belsky & Rovine, 1990; Cowan & Cowan, 1995; Shapiro, Gottman, & Carrere, 2000). Across this body of literature, research has revealed that lower education, income, and social support are factors which predict declines in marital satisfaction during this time (Belsky & Rovine, 1990; Cowan & Cowan, 2000). However, it is possible that early family experiences, characteristics of the newborn infant, and marital aggression serve as additional sources of variance (Belsky & Isabella, 1985; Belsky & Rovine; Cox, Paley, Burchinal, & Payne, 1999).

Drawing from Karney and Bradbury's (1995) vulnerability-stress-adaptation framework, I examined the process by which remembered parental rejection during childhood predicts individual differences in trajectories of change in marital satisfaction across the transition to parenthood through aggressive strategies spouses' employ to resolve marital conflict. In addition, the extent to which infant negative emotionality moderates the association between remembered parental rejection and both aggressive strategies to resolve conflict and change in marital satisfaction was examined. Given that spouses are thought to bear a degree of influence on one another (Thibaut & Kelley, 1959), both self- and partner-remembered parental rejection and aggressive conflict strategies were considered as predictors of change in marital satisfaction.

The transition to parenthood is an important time in which to examine factors which predict change in marital satisfaction. Marital satisfaction is often regarded as a predictor of marital dissolution, such that couples who are more satisfied in their marriages are less likely to end their relationship in divorce (Bradbury, Fincham, & Beach, 2000; Karney & Bradbury, 1995). Given that couples are at greatest risk for divorce in the first five years of marriage, which also happens to be the time during which most couples undergo the transition to parenthood (Bramlett & Mosher, 2001), marital satisfaction across the transition to parenthood is particularly important for marital stability. Individuals who experience drastic declines in marital satisfaction may therefore be particularly vulnerable to divorce. In addition to implications for marital stability, marital satisfaction across the transition to parenthood has important implications for personal well-being (O'Hara & Swain, 1996), parental involvement

(Mehall, Spinrad, Eisenberg, & Gaertner, 2009), and infant attachment security (Isabella & Belsky, 1985). Thus, marital satisfaction across the transition to parenthood is important for individual spouses, the parent-child relationship, and the developing infant in addition to the marital relationship.

Given the wide range of consequences of marital dissatisfaction across the transition to parenthood, it is critically important to identify factors which distinguish among husbands' and wives' trajectories of change in marital satisfaction across this transition. By considering both self- and partner-experiences and characteristics as predictors of change in marital satisfaction, the current study has the potential to make an important contribution to marital and family literature, as well as to inform programs and interventions designed to help couples navigate the transition to parenthood.

#### *Explication of Constructs*

The explication of constructs is essential for conceptual clarity. In the current study, marital satisfaction is conceptualized as spouses' subjective evaluation of various aspects of their marriage (Bradbury et al., 2000). Indicators include satisfaction with decision making, marital communication, and shared values and beliefs. Importantly, in examining change in marital satisfaction across the transition to parenthood the dynamic and fluid nature of spouses' subjective evaluations of marriage is underscored (Bradbury et al.). Remembered parental rejection is conceptualized as spouses' memories of parental disapproval, emotional unavailability, and indifference (Rohner, 2004). Indicators include husbands' and wives' recollections of whether their own parents were emotionally cold to them, whether they felt as if their parents did not want them, and

whether their parents ignored them. The construct of aggressive conflict strategies is conceptualized as the degree to which spouses engage in aggressive strategies to resolve marital conflict. Indicators include the degree to which husbands and wives express verbal or physical aggression toward one another. Infant negative emotionality is the degree to which infants are emotionally reactive in frustrating and fearful contexts (Rothbart, 1981). Indicators include fussiness, crying, and expression of distress in confining and novel contexts.

#### *Limitations of Previous Research*

The current study builds upon previous research and has the potential to make a contribution to the marital and family literature in a number of important ways. First, although previous research has demonstrated that the experience of remembered parental rejection in childhood is linked with declines in marital satisfaction following the birth of a new baby among wives (Belsky & Isabella, 1985), it is not fully understood if remembered parental rejection influences marital satisfaction in this way among husbands. Attachment theory posits that early experiences with caregivers lay the foundation for evaluations of adult close relationships for both men and women, particularly over developmental and family transitions (Bowlby, 1969). Despite this, there is an emerging body of evidence that early family experiences have a stronger influence on marital experiences among women than among men (Feldman, Gowen, & Fisher, 1998; Holman & Birch, 2001). Although gender differences in the association between more broadly defined early family experiences and marital experiences have been examined, gender differences in the association between remembered parental

rejection and marital satisfaction specifically have not been formally tested. The current study addressed this contradiction between theory and research by considering links between remembered parental rejection and change in marital satisfaction while utilizing a sample of both wives and husbands.

Second, although there is evidence to support the hypothesis that remembered parental rejection is linked with declines in marital satisfaction across the transition to parenthood, it is still unclear if having a spouse who recalls more parental rejection in childhood is a risk factor for personal declines in marital satisfaction during this time. The current study builds upon previous research examining change in marital satisfaction across the transition to parenthood by utilizing a *dyadic approach*. Both self- and partner-remembered parental rejection were considered as predictors of change in marital satisfaction across the transition to parenthood.

Third, theory and previous research highlight the importance of the newborn infant for the experience of marital satisfaction across the transition to parenthood (Mehall et al., 2009), yet the role of the developing infant is largely ignored in studies which examine marital satisfaction during this time. Given that experiences with caregivers in childhood are thought to exert the greatest influence on current relationships during times of stress (Ainsworth, 1973; Ainsworth, Blehar, Waters, & Wall, 1978), it is possible that infant negative emotionality, a factor which is associated with heightened stress across the transition to parenthood (Mäntymaa, Puura, Luoma, Salmelin, & Tamminen, 2006), exacerbates the negative influence of remembered parental rejection on change in marital satisfaction during this transition.

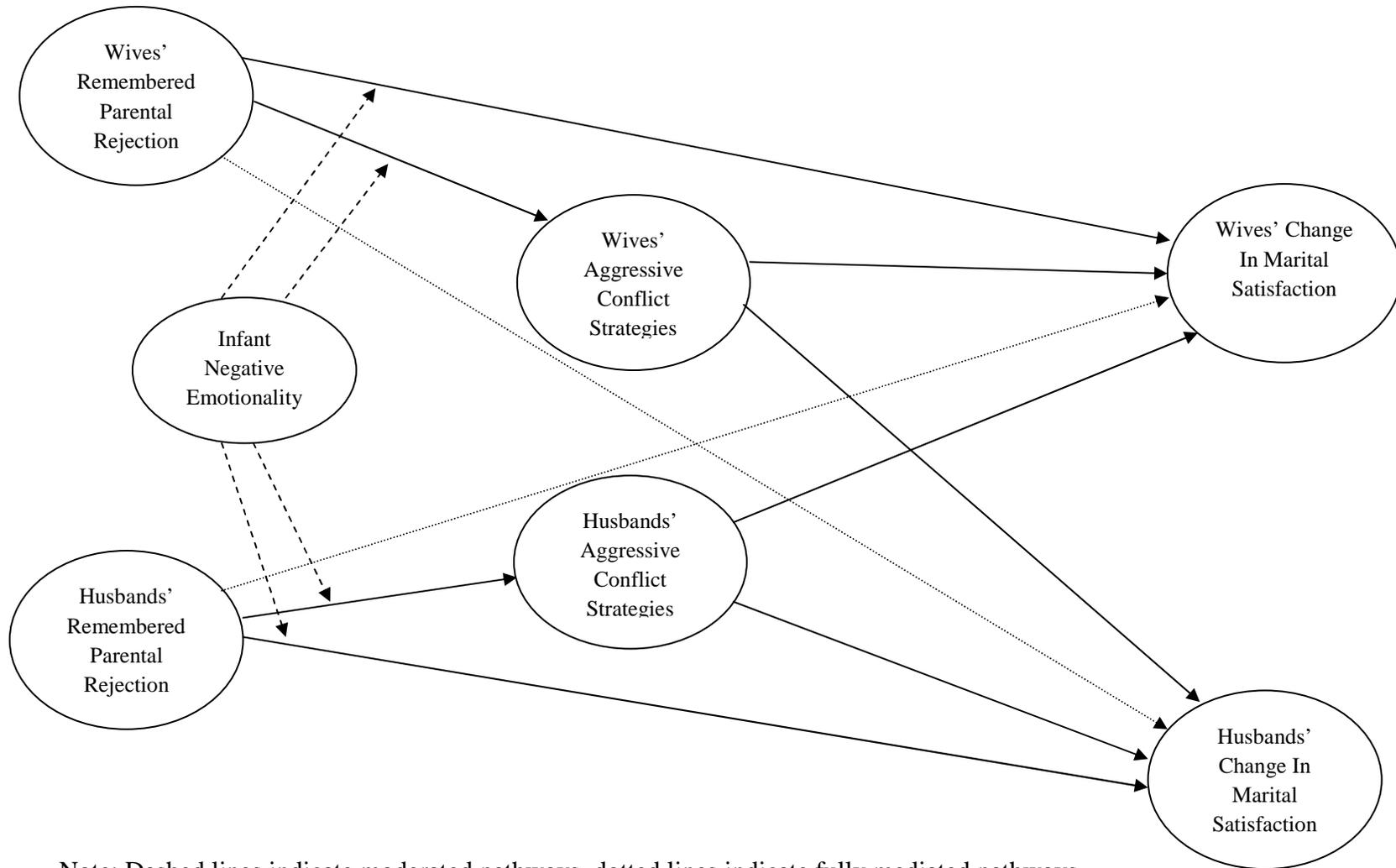
Fourth, the process by which remembered parental rejection influences change in marital satisfaction across the transition to parenthood is not fully understood. Previous research has demonstrated that parent-child relationship quality during childhood is inversely associated with strategies to resolve marital conflict (Roisman, Collins, Sroufe, & Egeland, 2005) and strategies to resolve marital conflict are linked with change in marital satisfaction over time (Cox et al., 1999). Therefore, it is possible that the association between parental rejection and change in marital satisfaction across the transition to parenthood is mediated by aggressive conflict strategies. Although evidence of this mediating mechanism is emerging in the marital literature (Marchand, 2004), this relationship has yet to be examined across the transition to parenthood. To build an additional layer of complexity, the current study also considers infant negative emotionality as a moderator of the mediated pathway. It was expected that infant negative emotionality will exacerbate the positive association between remembered parental rejection and aggressive conflict strategies.

In sum, the current study has the potential to make an important contribution to the marital and family literature by (a) examining predictors of marital satisfaction using a sample composed of both husbands and wives, (b) utilizing a longitudinal dyadic research design, (c) considering contextual factors which make the transition to parenthood more or less stressful (infant negative emotionality), and (d) evaluating the process by which family-of-origin experiences influence change in marital satisfaction over time. Results of the current study have important implications for programs and interventions designed to help first-time couples navigate the transition to parenthood.

## Conceptual Model

The goals of the current study are: (1) to examine self- and partner-remembered parental rejection as measured in the prenatal period as predictors of change in marital satisfaction across the transition to parenthood, (2) to consider infant negative emotionality as a moderator of the association between spouses' own remembered parental rejection and their own change in marital satisfaction, (3) to understand if spouses' own aggressive conflict strategies in the postnatal period partially mediate the association between spouses' own remembered parental rejection and their own change in marital satisfaction, (4) to explore if partner aggressive conflict strategies in the postnatal period fully mediate the association between partners' reports of remembered parental rejection and spouses' own reports of change in marital satisfaction, and (5) to consider infant negative emotionality as a moderator of the associations between remembered parental rejection and aggressive conflict strategies. The conceptual model is displayed in Figure 1.

Figure 1. Conceptual Model



Note: Dashed lines indicate moderated pathways, dotted lines indicate fully mediated pathways

Because the conceptual model considers the influence of both self- and partner-remembered parental rejection on change in marital satisfaction over time, it is important to distinguish between spillover and crossover effects in order to facilitate conceptual clarity. Spillover effects, also referred to as actor or self-effects, are intra-individual processes that occur when one aspect of the individual influences their own relationship functioning (Kenny, Kashy, & Cook, 2006; Neff & Karney, 2007). Spillover effects are essentially within person transmission of effects. In the current study, spouses' own reports of remembered parental rejection are expected to spillover to spouses' own reports of change in marital satisfaction. Spouses' own aggressive conflict strategies are expected to partially mediate the spillover effect of spouses' own remembered parental rejection on spouses' own reports of change in marital satisfaction. For example, a wife with a history of childhood rejection may be more likely to engage in aggressive conflict strategies which will contribute to a decline in her marital satisfaction over time.

In contrast, crossover effects, also referred to as partner effects, are inter-individual processes that occur when one aspect of an individual influences their partner's relationship functioning (Kenny et al., 2006; Neff & Karney). Crossover effects therefore refer to the transmission of experiences and emotions from one partner to the other. In the current study, partner remembered parental rejection is expected to crossover to spouses' own reports of change in marital satisfaction. Partner aggressive conflict strategies are expected to fully mediate the crossover effect of partner remembered parental rejection and spouses' own change in marital satisfaction. In this case, a wife with a history of childhood rejection may be more likely to engage in aggressive conflict

strategies which will contribute to a decline in her husband's marital satisfaction over time.

It is hypothesized that remembered parental rejection influences change in marital satisfaction as both a spillover and crossover effect. Spouses who recall more rejection from their parents experience greater declines in marital satisfaction across the transition to parenthood than spouses who recall less rejection from their parents. Spouses whose partners recall more rejection experience greater declines in marital satisfaction than spouses whose partners recall less rejection from their parents during childhood. Infant negative emotionality was expected to exacerbate the spillover effect of spouses' own reports of remembered parental rejection on their own change in marital satisfaction.

Remembered parental rejection is also expected to be positively associated with aggressive conflict strategies such that spouses who recall more parental rejection engage in more aggressive conflict strategies. Spouses' own aggressive conflict strategies are expected to mediate the spillover effect of spouses' own remembered parental rejection on spouses' own change in marital satisfaction, such that spouses who recall more parental rejection engage in more aggressive conflict strategies and experience greater declines in marital satisfaction than spouses who recall less parental rejection. The crossover effect was expected to be mediated by marital aggression as well. Partner aggressive conflict strategies are expected to mediate the effect of partner reports of remembered parental rejection on spouses' own change in marital satisfaction. Spouses whose partners recall more parental rejection have partners who engage in more aggressive conflict strategies and experience greater declines in their own marital

satisfaction than spouses whose partners recall less parental rejection. Finally, infant negative emotionality was expected to exacerbate the positive association between remembered parental rejection and aggressive conflict strategies, thus infant negative emotionality was expected to moderate the mediated spillover and crossover effects.

## CHAPTER II

### THEORETICAL FOUNDATIONS AND REVIEW OF THE LITERATURE

#### Theoretical Foundations

Three theoretical perspectives were used to inform the current study including the vulnerability-stress-adaptation-model (Karney & Bradbury, 1995), a systems perspective of the family (Cox & Payley, 1997; Minuchin, 1988), and attachment theory (Bowlby, 1969). The vulnerability-stress-adaptation model was used as an organizing framework to inform associations among remembered parental rejection, infant negative emotionality, aggressive conflict strategies, and marital satisfaction. To expand upon the vulnerability-stress-adaptation model, a systems perspective of the family was used to highlight the importance of both self- and partner-remembered parental rejection, as well as infant negative emotionality, for aggressive conflict strategies and marital satisfaction. Attachment theory was used to inform an understanding of the process by which remembered parental rejection influences aggressive conflict strategies and change in marital satisfaction.

#### *The Vulnerability-Stress-Adaptation-Model*

Karney and Bradbury's (1995) vulnerability-stress-adaptation-model serves as the organizing framework for the current study. This model was originally developed to consider factors which predict marital stability; however, given that marital satisfaction is

proposed to be the mechanism by which contextual factors influence stability, it has been applied to study change in marital satisfaction as well (Doss, Rhoades, Stanley, & Markman, 2009). The development of the vulnerability-stress-adaptation model was informed by four theoretical perspectives including social exchange theory, behavioral theory, crisis theory, and attachment theory.

This perspective highlights three factors which influence change in marital satisfaction over time: 1) enduring vulnerabilities; 2) stressful life events; and 3) adaptive processes. Enduring vulnerabilities are stable factors of the individual such as personality traits, demographic characteristics, and personal histories. These variables are possessed by the individual prior to their involvement in the marriage. As conceptualized by Karney and Bradbury (1995), each spouse brings their own set of enduring vulnerabilities to the marriage. Stressful life events include socioeconomic strain, health difficulties, and life transitions such as the transition to parenthood. These stressful life events are thought to be situations that the spouses encounter together. Across the transition to parenthood, factors such as infant negative emotionality may influence the degree to which the transition to parenthood is more or less stressful. Adaptive processes are the ways in which spouses interact and behave towards one another when they are faced with conflict or family transitions. Adaptive processes may be dyadic properties of the marriage, such as patterns of interaction between couples, or they may be individual properties of each spouse, such as personal strategies to resolve marital conflict. These processes are essentially the ways in which spouses' or couples adapt to the situation at hand. Therefore, adaptive process may be positive or constructive in nature, or they may be

negative or problematic in nature. For example, when faced with conflict spouses may engage in aggressive behaviors to resolve the issue at hand, which is a problematic strategy to adapt to the conflict they are facing.

Karney and Bradbury (1995) posit that enduring vulnerabilities and stressful life events influence marital satisfaction through their effects on adaptive processes. The ways in which couples behave towards one another, or the ways in which they resolve marital conflict, are thought to be influenced by both pre-existing factors each individual brings to the relationship (enduring vulnerabilities) as well as the context in which couples are currently situated (stressful life events). In the current study, the enduring vulnerability under consideration is remembered parental rejection. The adaptive process is aggressive strategies to resolve marital conflict. The stressful life event under consideration is the transition to parenthood. Therefore, in the current study I build upon Karney and Bradbury's model by conceptualizing the stressful life event as a constant in that all couples in the sample are experiencing the transition to parenthood. However, infant negative emotionality is conceptualized as a factor which influences the degree to which the transition to parenthood is more or less stressful for individual couples. Therefore, infant negative emotionality is a moderator.

Although the vulnerability-stress-adaptation model is a useful organizing tool for understanding the influence of enduring vulnerabilities and stressful life events on adaptive processes and subsequent marital satisfaction, this perspective does have a number of important limitations. First, because Karney and Bradbury focus on hypothesized associations between the variables they propose are important for marital

satisfaction and stability, it is necessary to draw upon other theoretical frameworks to inform a deeper understanding of the causal pathways that they propose. For example, Karney and Bradbury (1995) argue that each individual's family-of-origin serves as an enduring vulnerability which exerts an influence on marital behavior (adaptive processes), yet the model does not specify a theoretical rationale for why experiences within the family-of-origin influence marital behavior. Therefore, although the vulnerability-stress-adaptation model serves as an organizing template for the conceptual model developed for the current study, additional theoretical frameworks are necessary to support the hypothesized pathways.

Second, in their development of the vulnerability-stress-adaptation model, Karney and Bradbury (1995) acknowledge that a limitation of the model is the simplicity with which they conceptualize the association between stressful life events and enduring vulnerabilities. The authors acknowledge that these two variables may combine with one another in the prediction of adaptive processes, yet they intentionally did not specify the ways in which they together influence marital behavior. It is possible that enduring vulnerabilities and stressful life events interact with one another to have a unique effect on adaptive processes.

Finally, Karney and Bradbury (1995) acknowledge that a limitation of the model is that it does not take into account within couple differences in enduring vulnerabilities, stressful life events, and adaptive processes. It is quite possible that each individual within the marriage has differing experiences prior to the marriage, and each individual within the marriage experiences and adapts to stressful life events in different ways.

Therefore, the model is limited in that it does not consider crossover effects of enduring vulnerabilities, stressful life events, and adaptive processes from one spouse to the other. The question of how unique experiences influence each spouse is largely ignored in the vulnerability-stress-adaptation model, yet this was an intentional decision by the authors in an effort to preserve parsimony within the model.

In an effort to address these limitations and further inform the paths in the conceptual model, I draw upon a systems perspective of the family and attachment theory as additional theoretical frameworks. A systems perspective helps to inform an understanding of the process by which stressful life events influence aggressive conflict strategies and marital satisfaction, as well as to understand how partner enduring vulnerabilities influence spouses' own change in marital satisfaction. Attachment theory helps to further support the link between remembered parental rejection and aggressive conflict strategies and marital satisfaction, provides insight into how parental rejection and infant negative emotionality may interact to predict aggressive conflict strategies, and informs an understanding of the crossover effect of partner remembered parental rejection and spouses' own reports of change in marital satisfaction.

#### *A Systems Perspective*

A systems perspective of the family postulates that the family is a system, or an organizational structure, in which smaller subsystems are embedded (Minuchin, 1988). Subsystems within the family include the marital subsystem, the parent-child subsystem, the co-parental subsystem, and various sibling subsystems. Each of these subsystems is thought to be separated by boundaries, although the relative permeability of such

boundaries has implications for the degree to which aspects of one subsystem influence another. A systems perspective draws attention to the importance of examining transitions, such as the transition to parenthood, and the far reaching influence of transitions on all aspects of the family system.

From a systems perspective the family is a homeostatic organism which continually compensates for environmental change (Cox & Payley, 1997; Whitchurch & Constantine, 1993). Rather than accepting change, families are thought to resist change and attempt to maintain established norms and patterns of interaction. Thus change in one aspect of the family system is thought to precipitate change in other aspects of the system in an effort to return to the original state of affairs. However, under certain conditions, such as the experience of undergoing the transition to parenthood, families must adapt to the situation at hand and rather than maintain norms, families must negotiate and re-establish norms, rules, and patterns of interaction at the family level. For example, the birth of the first child, and the establishment of the parent-child and co-parental subsystems will necessitate change within the marital subsystem (Cox, Payley, Burchinal, & Payne, 1999). As marital partners become parents, they often experience substantial changes in their everyday activities (Claxton & Perry-Jenkins, 2008; Huston & Vangelisti, 1995) which may lead to increased conflict between spouses as they are faced with changing family norms. The strategies which spouses employ to deal with such conflict may result in changing marital evaluations. Therefore, from a systems perspective the examination of change in marital satisfaction across the transition to parenthood is relevant.

A systems perspective also argues that it is critical to view the family as a whole, rather than simply examining individual family members that are nested within the family system in isolation (Cox & Paley, 1997). Family members are thought to be interdependent and to have the capacity to influence each other (Minuchin, 1985). Thus, it is important to examine not only factors of each individual spouse which may predict change in marital satisfaction over the transition to parenthood (spillover effects) but factors of the individual's marital partner which predict change as well (crossover effects). This perspective is evident in not only a systems perspective of the family but in theories of the interdependence of marital partners, which argue that each spouse's experiences have the capacity to influence the other (Thibaut & Kelley, 1959). Rather than examining how each spouse in the marital dyad adapts to the experience of parenthood in isolation, it is important to examine the adaptation of husbands and wives jointly.

A systems perspective of the family also highlights the role of members of the family outside the marital subsystem for experiences within the marital subsystem. Children exert an influence on their parents' experiences in their marital relationships (Crouter & Booth, 2003). As couples undergo the transition to parenthood, the developing infant influences the marital relationship. Spouses who report that their infant has an "unpredictable" or "difficult" temperament experience greater declines in four aspects of their marriages (love, conflict, ambivalence, and maintenance) than spouses who report their infant is less "unpredictable" (Belsky & Rovine, 1990).

A systems perspective of the family highlights the importance of examining change in marital satisfaction across the transition to parenthood, and also emphasizes the importance of considering how characteristics of both spouses influence change and stability. Furthermore, a systems perspective draws attention to the developing infant's temperament as a source of additional stress across this transition. Attachment theory is an additional theoretical framework from which to understand how family-of-origin experiences influence marital satisfaction across the transition to parenthood because it provides a theoretical framework to inform an understanding of the process by which remembered parental rejection influences change in marital satisfaction through aggressive conflict strategies.

#### *Attachment Theory*

Bowlby's (1969) attachment theory considers the legacy of early relationships with primary caregivers for personal well-being and experiences in close relationships during adulthood. Attachment theory was considered one of four organizing frameworks in the development of Karney and Bradbury's (1995) Vulnerability-Stress-Adaptation model. This perspective argues that in the context of early interactions with primary caregivers children develop working models, or schemas, about the nature of close relationships including how others will respond to their requests and how they themselves should engage in relationships (Bowlby, 1977). These working models are thought to exert an influence on experiences in subsequent close relationships by operating as the lens through which individuals interpret others' behavior. Working models also guide partner selection as individuals are thought to select partners who confirm their working

models and beliefs about close relationships (Frazier, Byer, Fischer, Wright, & DeBord, 1996). Importantly, working models generally remain stable throughout life as early experiences drive expectations for future relationships (Waters, Merrick, Treboux, Crowell, & Albersheim, 2000). Thus, early relationships with caregivers in childhood, including the experience of parental rejection, are thought to be enduring vulnerabilities which spouses bring to the marriage.

*Direct effects on marital satisfaction.* Bowlby (1969) argued that infants whose caregivers are warm and responsive to their attempts to elicit physical protection, safety, and emotional support develop working models of others as dependable, trustworthy, and supportive and models of themselves as capable and competent individuals who have the capacity to succeed in close relationships. This type of working model is generally regarded as “secure.” Individuals with a secure working model are thought to have a more positive outlook on themselves and the world around them, as well as a more positive lens through which they interpret others’ actions. Individuals with this secure working model may therefore interpret the actions and verbal cues of close friends, marital partners, and acquaintances more positively than individuals with an insecure working model. This positive attribution bias is thought to result in more positive evaluations of relationships. Supporting this proposition, positive marital attributions have been consistently linked with marital satisfaction (Fincham, 2002).

In contrast, infants whose parents are cold and rejecting of their physical and emotional needs develop working models of others as undependable, untrustworthy, and unsupportive and develop models of themselves as incompetent individuals who are

likely to fail in their relationships. These types of working models are generally regarded as being “insecure.” Individuals with an insecure internal working model are thought to have a more negative outlook on themselves and the world around them, and a more pessimistic lens through which they interpret others’ actions. Individuals who are insecure may therefore interpret others’ actions more negatively. This negative attribution bias is thought to result in more negative evaluations of close relationships. Therefore, spouses whose parents were rejecting in childhood may evaluate their marriage more negatively, resulting in less marital satisfaction.

*Aggressive conflict strategies as a mediating variable.* Experiences with caregivers in childhood, and the working models which arise from these experiences, are also thought to influence evaluations of close relationships through behavioral mechanisms (Bowlby, 1969). Individuals with more insecure working models may behave in manners which elicit more negative responses from their marital partners than individuals with more secure internal working modes. For example, spouses who are insecure in their views of themselves and their relationships may act in more aggressive manners towards their partners because they hold the preconceived notion based upon their early family experiences that their partner will not respond to their physical and emotional needs (Bowlby). Therefore, when faced with marital conflict, spouses who recall heightened rejection from their parents during childhood may act aggressively toward their partner because they expect that their partner will not respond to their perspective if they share it in a more amicable manner. Spouses who recall more parental rejection may also act aggressively toward their partner because they subconsciously

project submerged anger towards to their childhood caregiver onto their spouse, whom in adulthood is the primary attachment figure (Bowlby, 1973; Rholes, Simpson, & Stevens, 1998). Thus, in the emotional context of marital conflict, the suppressed subconscious anger towards their childhood caregivers that spouses carry is directed toward their marital partner. In turn, their partner may respond aggressively, resulting in less positive evaluations of the marriage. Consequently, marital conflict is less likely to be resolved contributing to lower marital satisfaction. Therefore, spouses who experience more rejection from caregivers in childhood may engage in more aggressive conflict strategies when faced with marital conflict, and may therefore evaluate their marriages more negatively.

*Romantic attachment security.* Since its conception, Bowlby's attachment theory (1969) has been extended to consider romantic partners as attachment figures as well (Hazan & Shaver, 1987). In fact, a significant amount of research which has considered links between attachment security and marital satisfaction has examined the influence of attachment to romantic partners rather than attachment to childhood caregivers (Mikulincer & Shaver, 2007). Hazan and Shaver argued that adults develop attachment bonds to their romantic partners which are similar to the attachment bonds infants develop to their primary caregivers, and that these bonds influence working models of the self and of others.

Importantly, and relevant to the current study, romantic attachment security is linked with childhood relationships with caregivers. Individuals who are secure in their romantic relationships recall their relationships with their parents in childhood as more

accepting, warm, and affectionate than individuals who are insecure in their romantic relationships (Feeney & Noller, 1990; Heinonen, Raikkonen, Keltikangas-Jarvinen, & Strandberg, 2004; Hazan & Shaver, 1987). Furthermore, parental rejection is negatively associated with adult attachment security such that individuals who recall more parental rejection are less secure in their romantic relationships (Hinnen, Sanderman, & Sprangers, 2009). Thus, adult attachment theory and research which has stemmed from this perspective is useful in order to better understand the link between remembered parental rejection and change in marital satisfaction over time; however, romantic attachment security is not empirically examined in the current study.

Variation in adult working models are most often conceptualized as lying along continuums of attachment related anxiety and attachment related avoidance (Brennan, Clark, & Shaver, 1998). Individuals who are high on attachment related anxiety worry about the availability and responsiveness of their romantic partner. They often expect their partner to reject their needs for emotional support. In contrast, individuals who are low on attachment related anxiety are comfortable with their partners' responsiveness and trust that their partner will be emotionally available. Individuals who are high on attachment related avoidance are uncomfortable relying on their romantic partner for support and often avoid intimacy while individuals who are low on attachment related avoidance are comfortable relying on their partner for support. Brennan and colleagues (1998) argued that individuals who are low on both attachment related avoidance and anxiety are generally more secure in their romantic relationships.

Romantic attachment security has important implications for marital behavior, indirectly supporting the hypothesis that remembered parental rejection is positively associated with aggressive conflict strategies. Individuals who are secure in their romantic relationships are more trusting of their romantic partners, are generally more satisfied in their relationships, and report greater commitment to their relationships than individuals who are insecure in their romantic relationships (Simpson, 1990). When faced with a difficult task, or faced with conflict with their romantic partner, secure individuals are more supportive of their partner, are more willing to compromise, and have more positive conflict management skills than individuals who are insecure in their romantic relationships (Creasey & Ladd, 2005; Kobak & Hazan, 1991; Pistole, 1989). More specifically, and relevant to the current study, individuals who are secure in their attachment representation are less likely to deal with conflict in an aggressive or hostile manner (Rholes et al., 1998).

*Crossover effects of parental rejection.* Experiences with caregivers in childhood may exert a crossover effect on partner marital satisfaction as well; however, it is conceptualized that this occurs through behavioral mechanisms. Spouses who recall more rejection from their caregivers during childhood may engage in more aggressive conflict strategies and their spouses may subsequently experience lower marital satisfaction. In the romantic attachment literature, it is generally regarded that the influence of attachment style on romantic relationship quality can only be understood at a dyadic level (Feeney, 2003) and romantic relationship quality is generally regarded as being influenced by both partners (Hazan & Shaver, 1987). Thus, the examination of the

crossover effect of parental rejection on change in marital satisfaction is critical to inform an understanding of how family-of-origin experiences influence marriages over the transition to parenthood.

### *Integration of the Three Perspectives*

Family systems and attachment theories are useful frameworks to inform the vulnerability-stress-adaptation model, specifically by deepening an understanding of the mechanisms underlying the associations proposed by Karney and Bradbury (1995). However, family systems and attachment theories have implications for the complexity of associations between the factors proposed by Karney and Bradbury as well. Therefore, drawing upon these two perspectives, I expected that stressful life events and enduring vulnerabilities interact with one another to predict aggressive conflict strategies and change in marital satisfaction across the transition to parenthood.

Drawing from attachment theory, it is believed that early family relationships are particularly salient during times of stress and when individuals are faced with developmental and family transitions (Ainsworth, 1973; Ainsworth et al., 1978; Bowlby, 1973). Supporting this notion, research has demonstrated that the attachment system is activated during stressful experiences, albeit at a preconscious level (Mikulincer, Birnbaum, Woddis, & Nachmias, 2000; Mikulincer, Gillath, & Shaver, 2002). Given that the transition to parenthood is considered to be a stressful event, it is theorized that memories of childhood relationships with caregivers are most likely to influence personal well-being and experiences in close relationships as expectant parents prepare for the birth of their own child (Bowlby, 1988; Cowan, Cowan, Heming, & Miller, 1991). Thus,

childhood relationships are expected to be particularly influential for current relationship functioning across the transition to parenthood as compared to other times during the course of a romantic relationship (Bowlby, 1988).

Although the transition to parenthood is associated with some degree of stress for all new parents (Feeney, Hohaus, Noller, & Alexander, 2001), the degree to which the transition to parenthood is stressful varies across couples. One factor which may influence the degree of stress associated with the transition to parenthood is infant negative emotionality. In fact, higher infant negative emotionality and fussiness have been consistently linked with greater parenting stress than lower infant negative emotionality and fussiness (Feeney et al., 2001; Mäntymaa et al., 2006; Mulsow, Caldera, Pursley, Reifman, & Huston, 2002; Wilkie & Ames, 1986). Infants who are high on negative emotionality may increase stress associated with the transition to parenthood because they require more care than infants low on negative emotionality (Mehall et al., 2009). Therefore, couples who are faced with a persistently fussy infant may experience greater changes in family routines and shared couple time than couples who are faced with a less reactive infant, contributing to greater stress and heightened conflict between partners as they attempt to maintain homeostasis in the face of these changes (Papousek & von Hofacker, 1998). Furthermore, infant negative emotionality may also increase stress associated with the transition to parenthood because crying is generally regarded as being aversive and because it undermines parents' positive beliefs about themselves and their ability to effectively care for their infant (Leerkes & Burney, 2007; Leerkes & Crockenberg, 2002; Teti & Gelfand, 1991). When spouses become less confident in their

parenting abilities, their attachment related views of themselves which stem from childhood experiences may become more salient to their current experiences as they rely on their conceptualizations of themselves in domains outside of parenting as a coping strategy. Similarly, heightened conflict in the marital relationship stemming from an infant high in negative emotionality may magnify the extent to which ones attachment-related sense of others in general affects current evaluations of the marital relationship.

Increased stress associated with caring for an infant high on negative emotionality is therefore expected to activate the attachment system more strongly, and to strengthen associations between attachment-related experiences and personal change in marital satisfaction across the transition to parenthood as well as personal aggressive conflict strategies, than lower stress associated with caring for an infant low on negative emotionality. Subsequently, spillover of remembered parental rejection on change in marital satisfaction across the transition to parenthood is expected to be stronger among individuals whose infants are high on negative emotionality than individuals whose infants are low on negative emotionality. Furthermore, associations between remembered parental rejection and aggressive conflict strategies are expected to be stronger among those individuals with an infant who is high on negative emotionality than an infant low on negative emotionality.

## Review of the Literature

### *Trajectories of Marital Satisfaction*

Given that marital satisfaction tends to wax and wane over time (Bradbury et al., 2000; Karney & Bradbury, 1995), it is important to understand the typical course of

marital satisfaction across the course of a marriage. Marital researchers originally argued that marital satisfaction typically changed in a U-shaped fashion across the lifetime of a marriage (Burr, 1970; Rollins & Feldman, 1970). This group of scholars argued that couples tended to experience higher satisfaction in the early years of marriage, sharp declines during the childrearing years, and eventual increases back to higher satisfaction in the late years of marriage. Although this body of research made an important contribution to the marital literature, it was characterized by one fatal flaw. The longitudinal course of marital satisfaction was evaluated through a cross-sectional design. Rather than following couples longitudinally, these studies evaluated many groups of couples at differing time points to come to the conclusion that marriages change in this way. As longitudinal datasets became available for researchers to re-evaluate this finding, it became apparent that marital satisfaction in fact tends to decline in a linear fashion over time (Lindahl, Clements, & Markman, 1998; Vaillant & Vaillant, 1993), although in the later years of marriage marital satisfaction begins to rise again yet only to a moderate level (Bradbury et al., 2000).

This pattern of decline in marital satisfaction over time is particularly apparent in the transition to parenthood literature. Research has demonstrated that on average, marital satisfaction and happiness decline in a linear fashion across the transition to parenthood (Belsky, Lange, & Rovine, 1985; Lawrence et al., 2008). Additionally, new parents tend to experience greater declines in marital satisfaction than non-parents (Lawrence et al.; Shapiro et al., 2000). Although this body of research paints a negative picture of the experience of first-time parents in their marriages, not all couples experience this type of

decline in marital satisfaction. There is significant variation across couples in their experience of change of marital satisfaction across the transition to parenthood (Belsky & Kelley, 1994; Lawrence et al.). In fact, many couples experience no change in marital satisfaction and others experience change in a positive direction over this transition (Cox et al., 1999; Huston & Vangelisti, 1995; Tucker & Aron, 1993; White & Booth, 1985). Across this body of literature it appears that approximately 18 percent of spouses experience increases in marital satisfaction across the transition to parenthood (Cowan & Cowan, 1995) while 45 to 67 percent of spouses experience declines in marital satisfaction during this time (Cowan & Cowan; Shapiro et al., 2000). Therefore, the effects of parenthood can differ across couples, leading to the question of why it is that some marriages fare better than others during this time.

*Links Between Remembered Parental Rejection and Marital Satisfaction: Spillover Effects*

Given that early experiences with caregivers are thought to lay the foundation for evaluations of adult close relationships through working models of the self and others (Bowlby, 1969), a growing body of literature provides evidence of the spillover effect of spouses' own reports of remembered parental rejection and spouses' own reports of change in marital satisfaction across the transition to parenthood. This literature may be organized into three components: (1) prospective longitudinal studies which follow individuals from childhood to adulthood, (2) studies which utilize adult children's retrospective reports of parenting behavior, and (3) studies which consider adult attachment security, theoretically stemming from childhood experiences with parents.

*Prospective longitudinal studies.* Prospective longitudinal studies which have followed individuals from childhood to adulthood provide evidence of the legacy of early family relationships for spouses' marital satisfaction, although these studies are limited. First, parental warmth at age five has been linked with social accomplishment in adulthood. Social accomplishment was composed of a variety of interpersonal achievements including marital happiness and stability (Franz, McClelland, & Weinberger, 1991). More recently, infant attachment security, theoretically associated with parental rejection, has been demonstrated to be positively associated with romantic relationship satisfaction during young adulthood (Sroufe, Egeland, Carlson, & Collins, 2005), providing additional evidence of the hypothesized spillover effect. Prospective studies which follow individuals from adolescence to adulthood provide additional evidence for the link between remembered parental rejection and marital satisfaction. Nurturant-involved parenting during adolescence, conceptually opposed to parental rejection, was positively associated with romantic relationship quality, conceptualized as a composite of satisfaction and stability, during young adulthood (Conger, Cui, Bryant, & Elder, 2000). In general, effect sizes represented by correlation coefficients for prospective associations between constructs associated with parental rejection in childhood and marital satisfaction range from .23 to .32. This range is indicative of a small to medium effect size in terms of magnitude (Cohen, 1988). Although these prospective longitudinal studies provide some insight into spillover effects of self-reported remembered parental rejection on self-reported change in marital satisfaction, longitudinal studies which have followed individuals from childhood into adulthood and

over the transition to parenthood are scant. Therefore, it is necessary to draw upon research considering retrospective reports of parenting behavior to better understand if these associations are replicated in the context of a major life transition. It is important to acknowledge however that retrospective reports of parenting behavior may be biased as scholars often argue that these reports are colored by current emotional dispositions and states of mind regarding childhood experiences (Brewin, Andrews, & Gotlib, 1993).

*Retrospective reports of parenting behavior.* Retrospective reports of parenting behavior provide evidence of the link between remembered parental rejection and change in marital satisfaction. Research reveals that individuals who recall more warmth from their parents during childhood experience greater satisfaction in their adult romantic relationships (Burns & Dunlop, 1998; Truant, Herscovitch, & Lohrenz, 1987). Most relevant to the current study, research has revealed that women who recall more rejection from their parents during childhood experience greater declines in marital satisfaction following the birth of a new baby than women who recall less rejection from their parents during childhood (Belsky & Isabella, 1985); however, this association was not significant among men. Effect sizes represented by correlation coefficients for the association between remembered parental rejection and marital satisfaction generally range from .22 to .32. These effect sizes are small to medium in their magnitude (Cohen, 1988). It is important to acknowledge, however, that in Belsky and Isabella's study the authors captured change in marital satisfaction using a regression-based change score in which they controlled for prenatal marital satisfaction while predicting marital satisfaction at nine months postpartum. This method for analyzing change has less power to detect

significant effects than growth curve modeling which analyzes change over multiple timepoints (Stull, 2008). Furthermore, the sample utilized by Belsky and Isabella was composed of some couples undergoing the transition to parenthood and others who already had a child. Thus, it is quite possible that remembered parental rejection is a significant predictor of both wives' and husbands' trajectories of change in marital satisfaction over multiple time points across the transition to parenthood specifically. Therefore, it is important to re-examine the spillover effect of spouses' own remembered parental rejection on spouses' own change in marital satisfaction among both wives and husbands using growth curve modeling.

*Adult attachment security.* Given that adult attachment security is associated with recollections of early experiences with caregivers (Heinonen et al., 2004), research examining links between adult attachment security and marital satisfaction provides additional evidence of the association between remembered parental rejection and change in marital satisfaction. It has been consistently demonstrated that adults who are secure in their attachment representations are more satisfied in their marriages (Mikulincer, Florian, Cowan, & Cowan, 2002). Moreover, it has been demonstrated that women who are insecure in their attachment representations experience declines in marital satisfaction over the transition to parenthood (Simpson & Rholes, 2002). Effect sizes represented by correlation coefficients for the spillover effect of adult attachment security and marital satisfaction generally range from .37 to .62, which are medium to large in their magnitude (Cohen, 1988).

*Links Between Parental Rejection and Marital Satisfaction: Crossover Effects*

Although research has previously demonstrated spillover effects of one's own remembered parental rejection on change in marital satisfaction across the transition to parenthood, crossover effects of remembered parental rejection from one romantic partner to the other have yet to be demonstrated. Evidence of a possible crossover effect may be taken from the adult attachment literature. Research reveals that individuals whose partners are secure in their attachment representations are generally more satisfied in the romantic relationships than individuals whose partners are insecure in their attachment representations (Collins & Read, 1990; Hirschberger, Srivastava, Marsh, Cowan, & Cowan, 2009; Scharfe & Bartholomew, 1995; Shaver & Brennan, 1992). Furthermore, husbands whose wives are insecure in their attachment representations are more likely to experience declines in their marital satisfaction across the transition to parenthood than husbands whose wives are secure in their attachment representations (Simpson & Rholes, 2002). Effect sizes represented by correlation coefficients for the crossover effect of adult attachment security and marital satisfaction generally range from .28 to .47 and are generally medium in their magnitude (Cohen, 1988). Further investigating the crossover effect of partner remembered parental rejection on spouses' own reports of change in marital satisfaction among both husbands and wives will provide more insight into the interdependence of couples across the transition to parenthood.

*Aggressive Conflict Strategies as a Mediating Variable: Spillover Effects*

Because enduring vulnerabilities are thought to exert an influence on marital satisfaction through marital behavior (Karney & Bradbury, 1995), and because experiences with caregivers in childhood are thought to influence the manner in which individuals respond to stress, spouses' own aggressive conflict strategies are expected to mediate the association between spouses' own remembered parental rejection and change in their marital satisfaction across the transition to parenthood. As there are links between parent-child relationship quality and aggressive conflict strategies (Roisman et al., 2005), as well as links between aggressive conflict strategies and change in marital satisfaction over time (Cox et al., 1999), it is possible that the link between remembered parental rejection and marital satisfaction is mediated by aggressive conflict strategies. Indeed, it has been demonstrated that the association between wives' rejection anxiety and marital satisfaction at a single time point, theoretically stemming from experiences of rejection from caregivers during childhood, was partially mediated by wives' conflict resolution styles (Marchand, 2004). Women who reported more rejection anxiety engaged in more attacking behaviors with their romantic partners in an effort to resolve conflict and subsequently reported less marital satisfaction than women who reported less rejection anxiety. Furthermore, the positive association between nurturant-involved parenting and satisfaction and stability in romantic relationships has been demonstrated to be mediated by supportiveness and hostility during romantic interactions (Conger et al., 2000). Investigating associations between remembered parental rejection and aggressive conflict strategies as well as associations between aggressive conflict strategies and marital

satisfaction separately provides additional evidence of this possible mediating mechanism.

Research reveals that infant attachment security, stemming from experiences of warmth and acceptance from primary caregivers, is positively associated with adaptive behavior in romantic interactions (Roisman et al., 2005). Individuals who were identified as secure in the Strange Situation in infancy engaged in high quality observed interactions with their romantic partners between the ages of 20 and 21. Aspects of the internal working model have also been linked with spouses' marital conflict resolution strategies (Marchand-Reilly & Reese-Weber, 2005). Comfort with closeness and depending on others was demonstrated to be positively associated with positive conflict resolution strategies while anxiety over rejection was negatively associated with positive conflict resolution strategies. Most relevant to the current study, spouses' recollections of the quality of the relationship that they had with their mothers in childhood was negatively associated with hostile marital conflict (Topham, Larson, & Holman, 2005). This finding was similar for both husbands and wives.

In the transition to parenthood literature, research demonstrates that adults' representations of their childhood relationships are associated with marital behavior across the transition to parenthood. Individuals who are preoccupied with their childhood relationships experience the greatest declines in marital maintenance over this transition (Curran, Hazen, Jacobvitz, & Feldman, 2005). It has also been demonstrated that husbands with secure representations of childhood relationships exhibit more positive behaviors and less conflict in their marriages when their children are three and half years

old than husbands with insecure representations of childhood relationships (Cohn, Silver, Cowan, Cowan, & Pearson, 1992). With regard to associations between remembered parental rejection and marital aggression across the transition to parenthood, parental rejection in the prenatal period is positively associated with self-reported marital aggression in the postpartum period, however this association has only been demonstrated among wives (Crockenberg & Leerkes, 2003a). Generally, effect sizes represented by correlation coefficients for the link between early family experiences and marital aggression range from .10 to .39. The magnitude of these effects are small to medium in size (Cohen, 1988).

Consistent with the view that aggressive conflict resolution styles contribute to the development of negative feelings and eventually negative evaluations of the romantic relationship (Markman, 1991), research has demonstrated that the ways in which couples resolve conflict has important implications for marital satisfaction (Bradbury & Karney, 1993). Furthermore, self- and partner-reports of conflict resolution styles have been linked with change in marital satisfaction over time, such that attacking behaviors characterized by aggression during conflict, predict declines in marital satisfaction over time (Kurdek, 1994). This body of research extends to the influence of problem-solving strategies on change in marital satisfaction across the transition to parenthood.

Individuals who demonstrated better observed problem-solving skills in their relationship with their romantic partner prenatally experienced less decline in marital satisfaction across the transition to parenthood as compared to individuals who experienced poor prenatal problem-solving skills (Cox et al., 1999). Most relevant to current study,

attacking behaviors indicative of aggression in response to conflict, measured through self-report, have been demonstrated to be negatively associated with marital satisfaction in the postnatal period (Crohan, 1996). This pattern of findings is similar among both husbands and wives. Effect sizes represented by correlation coefficients for the spillover effect of marital aggression on marital satisfaction range from .25 to .69, which are medium to large in magnitude (Cohen, 1988). Taken together, there is much research to support the hypothesis that aggressive conflict strategies partially mediate the spillover effect of spouses' own remembered parental rejection and their own change in marital satisfaction.

*Aggressive Conflict Strategies as a Mediating Variable: Crossover Effects*

It has long been recognized that crossover effects influence marital satisfaction through behavioral interactions (Thibaut & Kelley, 1959), therefore crossover effects of one's partner's remembered parental rejection on one's own marital satisfaction across the transition to parenthood are especially likely to be mediated by aggressive conflict strategies. For example, if husbands recall their parents as rejecting in childhood they may be more likely act aggressively towards their spouses during marital conflict which subsequently influences their wives' marital satisfaction. Partner remembered parental rejection is therefore thought to influence partner aggressive conflict strategies which subsequently crosses over to spouses' own marital satisfaction. Research has revealed that behaviors engaged in during romantic interactions do crossover from one partner to the other to influence marital satisfaction (Henry, Smith, Berg, & Florsheim, 2007; Yelsma & Marrow, 2003). Most relevant to the current study, crossover effects of

conflict engagement, characterized by “exploding” and “loss of control,” have been demonstrated in the marital literature (Hanzal & Segrin, 2009). Among both husbands and wives, having a partner who is high on self-reported conflict engagement, a construct similar to aggression, is associated with lower marital satisfaction. Effect sizes represented by correlation coefficients for the crossover effect of marital aggression on marital satisfaction range from .03 to .64, representing small to large effects in magnitude (Cohen, 1988). Therefore, the crossover effect of remembered parental rejection on change in marital satisfaction over time is expected to be fully mediated by partner aggressive conflict strategies. This is in contrast to the spillover effect of remembered parental rejection on change in marital satisfaction which is expected to be partially mediated by aggressive conflict strategies. It is possible that the influence of one’s own remembered parental rejection on change in marital satisfaction over time occurs through a number of alternative mechanisms in addition to aggressive conflict strategies, including expectations for relationships and psychological well-being.

#### *Stressful Life Events: Infant Negative Emotionality as an Exacerbating Effect*

Given that the attachment system is thought to be activated during times of stress (Ainsworth, 1973), infant negative emotionality may exacerbate the spillover effect of spouses’ own parental rejection and their own change in marital satisfaction. The effect of parental rejection on aggressive conflict strategies may be exacerbated by infant negative emotionality as well. Indeed, Crockenberg and Leerkes (2003b) posit that infant negative emotionality will have interactive effects with family characteristics in the prediction of marital outcomes. Currently, no direct evidence to support this moderating

effect is available as it has not been tested in the prior literature. That infant temperament has been associated with marital satisfaction as a main effect supports the view that child characteristics play a role in marital quality. Specifically, infant negative emotionality and dysregulation have been linked with poorer marital quality (Leve, Scaramella, & Fagot, 2001; McHale, Kazali, Rotman, Talbot, Carleton, & Lieberman, 2004; Porter, Wouden-Miller, Silva, & Porter, 2003). Of most relevance to the current investigation, in the transition to parenthood literature, women who identify their infants as more temperamentally difficult, characterized by unpredictability and fussiness, experience greater declines in marital love and greater increases in ambivalence and conflict across the first three years of parenthood than women who identify their infant as less temperamentally difficult (Belsky & Rovine, 1990). Further supporting the moderating hypothesis, parents of infants classified as “extreme criers” were more likely to experience marital distress than parents of infants who experienced more normative levels of crying (Papousek & von Hofaker, 1998). Parents of “extreme criers” also reported more distressing childhood experiences providing indirect support for the view that infant negative emotionality may activate the attachment system and intensify associations between parental rejection and marital outcomes.

Although the moderating effect of infant negative emotionality on the association between remembered parental rejection and marital satisfaction has yet to be empirically demonstrated, the argument that infant negative emotionality magnifies the effect of parent-child relationship quality on subsequent outcomes has been supported in two previous studies. First, Crockenberg and Leerkes (2003a) demonstrated a significant

interaction between women's recollections of paternal acceptance and infant negative emotionality in relation to maternal postpartum depressive symptoms. These authors conceptualized family-of-origin experiences as the moderator variable rather than infant negative emotionality. However, careful inspection of the moderating effect provides evidence for the current conceptualization. That is, there was only a negative association between paternal acceptance and postpartum depressive symptoms among mothers of infants who were rated as high on negative emotionality. Thus, the influence of paternal acceptance on depressive symptoms was only significant in the context of a highly reactive infant, supporting the notion that the attachment system is activated and has a stronger effect on other outcomes when faced with the stressor of caring for an infant high on negative emotionality.

Research which has examined the interaction of stress experienced during childhood and stress experienced during adulthood provides additional evidence of the hypothesized moderating effect of infant negative emotionality on the association between remembered parental rejection and change in marital satisfaction over time. Research reveals that spouses tend to experience declines in positive marital experiences when they experienced higher stress in both childhood and adulthood as compared to when they experienced stress during only one of those times (Umberson, Williams, Powers, Liu, & Needham, 2006). Given that the experience of parental rejection in childhood and the experience of infant negative emotionality are both stressful, it was expected that the moderating effect observed by Umberson and colleagues (2006) will be replicated in the current study. Despite evidence from these two previous studies, it is still

unclear if remembered parental rejection and infant negative emotionality interact to predict marital satisfaction, and specifically change in marital satisfaction over time.

### *The Role of Gender*

It is important to acknowledge that wives and husbands experience differential trajectories of marital satisfaction across the transition to parenthood. There is a growing body of evidence which suggests that wives experience sharper and more sudden declines in marital satisfaction following childbirth than do husbands (Doss, Rhoades, Stanley, & Markman, 2009). This may be due to the reality that the division of household labor and childcare is typically divided along gender lines with wives undertaking the majority of these tasks (Cowan & Cowan, 1988; MacDermid, Huston, & McHale, 1990).

With regard to the influence of remembered parental rejection on change in marital satisfaction over time, gender differences are also apparent. Research reveals that family-of-origin experiences may be more salient to marital satisfaction among women than among men (Feldman, Gowen, & Fisher, 1998; Holman & Birch, 2001). Furthermore, it has been demonstrated that remembered parental rejection predicts change in marital satisfaction following the birth of a baby among women but not among men (Belsky & Isabella, 1985). The crossover effect of partner remembered parental rejection on spouses' own change in marital satisfaction may also be characterized by gender differences. There is a growing body of evidence in the adult attachment literature that women's attachment styles are more predictive of men's marital satisfaction than are men's attachment styles predictive of women's marital satisfaction (Mikulincer et al., 2002). Furthermore, wives' recollections of the quality of their relationships with their

parents during childhood predict husbands' marital satisfaction whereas husbands' recollections of parent-child relationship quality do not predict wives' marital satisfaction (Holman & Birch). These findings are consistent with the popular view that women are more "relationship oriented" than men and that women are the primary architects of the marital relationship (Wamboldt & Reiss, 1989); however, they are inconsistent with the attachment perspective that early experiences have universal influences on adult experiences in close relationships.

The crossover effect of aggressive conflict strategies on marital satisfaction may also differ between husbands and wives. Research reveals that links between husbands' marital behavior and wives' satisfaction are stronger than links between wives' marital behavior and husband's satisfaction (Acitelli & Antonucci, 1994). Therefore, it is possible that the crossover effect of aggressive conflict strategies from one spouse to the other may be stronger when husband's behavior is a predictor of wives' satisfaction than when wives' aggressive conflict strategies are predictors of husbands' satisfaction.

### *Covariates*

There are a number of important covariates to consider in the examination of change in marital satisfaction across the transition to parenthood. First, infant gender should be considered as a covariate as the birth of a daughter, rather than son, is a risk factor for declines in marital satisfaction across the transition to parenthood (Cox et al., 1999; Doss et al., 2009; Raley & Bianchi, 2006).

There is a good deal of evidence to support the examination of socioeconomic status as a possible covariate as well. Couples who experience declines in marital quality

across the transition to parenthood tend to be less educated and earn less income than couples who experience no change or improvements in marital quality during this time (Belsky, Lang, & Rovine, 1985). Higher income has been found to buffer against increases in marital conflict over the transition to parenthood (Belsky & Rovine, 1990).

Age may serve as important covariate as well. Spouses who are younger tend to experience greater declines in marital satisfaction than their older counterparts (Belsky et al., 1985).

Finally, as depression is associated with both remembered parental rejection and marital satisfaction as spouses undergo the transition to parenthood (Crockenberg & Leerkes, 2003a; O'Hara & Swain, 1996), it is important to consider depressive symptoms as a possible covariate as well. Spouses who experienced more depressive symptoms in the prenatal period experienced sharper declines in marital satisfaction across the transition to parenthood than spouses who experienced fewer depressive symptoms (Cox et al., 1999). Thus, prenatal depressive symptoms was considered as a covariate.

### The Present Study

Drawing from theory and previous research it was hypothesized that:

1. There will be a spillover effect of remembered parental rejection on change in marital satisfaction across the transition to parenthood. Spouses who recall more rejection from their parents during childhood will experience greater declines in marital satisfaction than spouses who recall less rejection from their parents during childhood. This effect will be stronger among wives than among husbands.

2. There will be a crossover effect of remembered parental rejection on change in marital satisfaction across the transition to parenthood. Spouses whose partners recall more rejection from their parents during childhood will experience greater declines in marital satisfaction than spouses whose partners recall less rejection from their parents during childhood. This effect will be stronger in the prediction of husband's marital satisfaction than in the prediction of wives' marital satisfaction.
3. Infant negative emotionality will exacerbate the spillover effect of spouses' own remembered parental rejection and their own change in marital satisfaction across the transition to parenthood. Spouses who recall more rejection from their parents during childhood and whose infants are high on negative emotionality will experience greater declines in marital satisfaction than spouses who recall more rejection from their parents during childhood and whose infants are low on negative emotionality. No gender differences are expected for this exacerbating effect.
4. Spouses' own aggressive conflict strategies will partially mediate the spillover effect of spouses' own parental rejection on their own change in marital satisfaction. Individuals who recall more parental rejection will engage in more aggressive conflict strategies with their romantic partners and will subsequently experience greater declines in marital satisfaction than individuals who recall less parental rejection. No gender differences are expected for this mediating effect.

5. Partner aggressive conflict strategies will fully mediate the crossover effect of partner remembered parental rejection on spouses' own change in marital satisfaction. Individuals who recall more parental rejection will engage in more aggressive conflict strategies and their partners will subsequently experience greater declines in marital satisfaction than individuals who recall less parental rejection. This mediating effect is expected to be stronger in the prediction of wives' marital satisfaction than in the prediction of husbands' marital satisfaction.
6. Infant negative emotionality will exacerbate the negative association between remembered parental rejection and aggressive conflict strategies. Therefore, the indirect effects of self- and partner-remembered parental rejection on change in marital satisfaction through aggressive conflict strategies will be moderated by infant negative emotionality, essentially resulting in moderated mediation. No gender differences are expected for this moderated mediation effect.

## CHAPTER III

### METHOD

#### *Sample*

Data were drawn from a larger study of the antecedents of maternal sensitivity. One hundred and thirty four primiparous women and 95 of their romantic partners participated. Of those, 8 partners had children from a previous relationship and 8 couples were cohabiting or dating, thus the final sample was composed of 80 married couples in which both partners were currently undergoing the transition to parenthood. Wives ranged in age from 22 to 40 (M=29.61); were predominantly white (88%) or African American (9%); and the majority had at least a Bachelor's degree (81%). Husbands ranged in age from 22 to 43 (M=30.79); were predominantly white (88%) or African American (9%); and the majority also had at least a Bachelor's degree (71%). Family income ranged from \$20,000-\$190,000 (Median = \$75,000). Sixty-two percent of infants were male.

Examination of census data drawn from the county from which data were collected revealed that residents were predominantly white (64%) or African American (29%) and the median family income was \$52,638. Twenty-nine percent of women and 32 percent of men in the surrounding county had a least a Bachelor's degree. Thus, the

current sample of couples was more highly educated, had higher family incomes, and were more likely to be white than were all adults in the surrounding county.

### *Procedure*

First-time expectant couples were recruited from childbirth education classes in a large county in the southeastern United States. Research assistants visited the childbirth classes, gave a short presentation about the study, and collected contact information from interested parties. Wives were screened over the telephone to determine if they met the inclusion criteria of primiparity. Eligible couples were mailed two questionnaire packets, to be completed separately by each spouse, which included a demographic questionnaire and questionnaires to assess remembered parental rejection, satisfaction in the current romantic relationship, and depressive symptoms. Wives returned their own and their partner's sealed questionnaire packet when they visited the family observation laboratory for an interview related to the larger study.

At six months postpartum, participants were mailed a second set of questionnaire packets which included measures of infant temperament, marital conflict strategies, and marital satisfaction. Wives returned these packets when they visited the family observation laboratory with their infant for an assessment of infant temperament. At sixteen months postpartum participants were mailed a third set of questionnaire packets which included a measure of marital satisfaction. Wives returned these packets when they visited the family observation laboratory for an interview and observation related to the larger study. Importantly, at each time point couples were asked to fill out all questionnaires separately without the help of their partner.

### *Measurement*

*Independent variable: Remembered parental rejection.* The Parental Bonding Inventory-Care Subscale (Parker, Tupling, & Brown, 1979) was completed by both partners in the prenatal period to assess recollections of rejection from mothers and fathers in childhood. Participants are asked to think back to the first 16 years of their lives and to indicate how well 12-items (e.g. “made me feel as if I wasn’t wanted” and “seemed emotionally cold to me”) describe their mother figure and father figure on a 4-point scale from “very unlike” to “very like.” Adult children’s reports on the care subscale have been previously demonstrated to correlate with parents’ reports of their own behavior (Parker, 1981). Items on the mother and father scales were averaged after reverse scoring appropriate items to compute scores for remembered maternal rejection ( $\alpha = .94$  for wives,  $.90$  for husbands) and remembered paternal rejection ( $\alpha = .95$  for wives,  $.94$  for husbands). Given the perspective that relationships with both mothers’ and fathers’ in childhood creates a socialization context for offspring development (Jessor, 1998), scores for remembered maternal rejection and remembered paternal rejection were averaged to compute scores for each partner for remembered rejection from parents during childhood. Correlations between remembered maternal and paternal rejection were significant ( $r = .36, p < .01$  for wives;  $r = .62, p < .01$  for husbands).

*Mediator: Aggressive conflict strategies.* The Conflict and Problem-Solving Scales (CPS; Kerig, 1996) were completed by both partners at 6 months postpartum to assess the frequency with which they perceive themselves and their partners engaging in a variety of conflict resolution strategies. Participants were asked to indicate how often

they and their partner used 44 different strategies (e.g. “raise voice, yell, shout”) to deal with conflict on a four-point scale from “never” to “often.” Convergent validity of the CPS has been previously demonstrated with the Conflict Tactics scale. Three subscales may be derived from the CPS including aggressive, avoidant, and adaptive strategies. The aggressive subscale was used in the current study. The aggressive strategies subscale was originally composed of 20 items, however some items such as “beat up partner” had no variance. Thus, nineteen items compose the aggression subscale for wives reporting on self ( $\alpha = .90$ ) and reporting on partner ( $\alpha = .88$ ). Seventeen items compose the aggression subscale for husbands reporting on self ( $\alpha = .85$ ) and 20 items compose the aggression subscale for husbands reporting on partner ( $\alpha = .92$ ). More specifically, the item “beat up partner” was dropped for wives reporting on self, wives reporting on partner, and husbands reporting on self because none of those respondents indicated using that strategy. The items “slap partner” and “strike, kick, or bite partner” were dropped for husbands reporting on self because no husbands indicated using those strategies. No spouses in the current sample indicated using these strategies to In order to create a multi-informant measure, wives’ self-reports and husbands’ reports of wives’ behavior was averaged to compute scores for wives’ aggressive conflict strategies ( $\alpha = .92$ ) and husbands’ self-reports and wives’ reports of husband’s behavior was averaged to compute scores for husband’s aggressive conflict strategies ( $\alpha = .89$ ).

*Control: Depressive symptoms.* The Center for Epidemiologic Studies-Depression Scale (CES-D; Radloff, 1977) was completed by both partners in the prenatal period to assess depressive symptoms. Participants are asked to indicate how often they

experienced 20 moods and feelings (e.g. “I felt depressed”) during the past week on a 4-point scale from “never” to “always.” Scores on the CES-D have been previously demonstrated to converge with the Beck Depression Inventory (Spitzer, Endicott, & Robins, 1978). Items on this scale were summed, after reverse scoring appropriate items to compute scores for prenatal depressive symptoms ( $\alpha = .85$  for wives,  $.82$  for husbands).

*Control: Demographic characteristics.* Participants completed a demographic questionnaire in the prenatal period to assess age and education level. Husbands’ and wives’ self-reports of age and education level were considered as covariates.

*Moderator: Infant negative emotionality.* The Infant Behavior Questionnaire-Revised (IBQ-R; Gartstein & Rothbart, 2003) was completed by both partners at 6 months postpartum to assess perceptions of infant reactivity in frustrating and fearful contexts. Participants were asked to rate the frequency of 191 infant behaviors (e.g. “cried” and “soothed within 2 minutes”) on a 7-point scale from never to always. Interrater reliability between mother and father reports on the IBQ-R and convergent validity with observed indices of temperament have been previously demonstrated (Gartstein & Rothbart; Parade & Leerkes, 2008). Items from the distress to limitations (16 items) and fear (16 items) subscales was averaged to compute scores for wives’ ( $\alpha = .85$ ) and for husbands’ ( $\alpha = .83$ ) perceptions of infant negative emotionality. These scales were selected because they tap infant negative emotionality in fearful and frustrating contexts which is consistent with the conceptual definition used in the current study.

*Observation of infant temperament.* At six months postpartum wives and their infants visited the family observation laboratory and engaged in an observation of infant temperament adapted from Goldsmith and Rothbart (1996). Upon entering the laboratory mothers were instructed to play with their infant as they normally would for 5 minutes in order to acclimate themselves and their infant to the laboratory environment. Following the free play session, wives were instructed to place their infant into a car seat and then to sit in a chair where they were close enough for the infant to see them and for them to interact with their infant if they chose to do so. Research assistants then engaged in two emotion eliciting tasks with infants, one task designed to elicit anger (limitation task) and another to elicit fear (novelty task). Each task lasted four minutes and between each task there was a five-minute break. Wives were instructed to remain uninvolved for the first minute of each task and then were signaled they could interact with their infants as they please with the exception of removing their infant from the car seat during either of the tasks.

*Limitation task.* During the limitation task, the research assistant kneeled in front of the infant and gently held down the infant's forearms. The research assistant kept her head down for the duration of the task and did not interact with the infant.

*Novelty task.* During the novelty task, the research assistant placed a remote-control truck on a wooden table in front of the infant. The research assistant controlled the truck from beneath the table so she was not visible to the infant. The truck approached the infant, made a series of loud sounds (beeping noises, phrases such as "start your engine!") while its headlights flashed, and then backed away from the infant.

The truck repeated the sequence of movements three times and then turned off within arm's reach of the infant for the last minute.

*Temperament coding.* Observed infant negative emotionality was continuously rated by trained coders during the two six month temperament tasks. For each task, coders rated emotionality on a 7-point scale from high positive affect to high negative affect based upon the infant's facial expressions, vocalizations, and body tension. This scale was adapted from Braungart-Rieker and Stifter (1996). Inter-rater reliability based upon 33 double-coded observations was acceptable ( $Kappa = .73$ ). Average observed reactivity across the fear and anger tasks was computed.

In an effort to reduce the number of predictor variables, a principle components analysis was run including each measure of infant negative emotionality including mother report, father report, and observed reactivity. The principle components analysis demonstrated that these three items form a single factor with an eigenvalue of 1.4 and all factor loadings  $> .65$ . Thus, wives' and husbands' reports of infant negative emotionality and observed infant negative emotionality were standardized and then averaged to form a composite.

*Dependent Variable: Marital Satisfaction.* The Aspects of Married Life Questionnaire (Huston, McHale, & Crouter, 1986) was completed by each partner in the prenatal period and at 6 and 16 months postpartum to assess satisfaction with various aspects of marriage. Participants are asked to indicate their level of satisfaction in 8-domains of their relationship (e.g. "How satisfied are you with the way decisions in your marriage get made and the level of influence you have in those decisions?" and "How

satisfied are you with how understanding your spouse is about your work situation either inside or outside the home?) on a 7-point scale from “extremely dissatisfied” to “extremely satisfied.” Items on these scales were averaged to compute scores for marital satisfaction in the prenatal period ( $\alpha = .83$  for wives,  $.72$  for husbands) and at six ( $\alpha = .86$  for wives,  $.90$  for husbands) and sixteen months ( $\alpha = .88$  for wives,  $.86$  for husbands) postpartum.

#### *Data Analysis Plan*

Descriptive statistics were calculated for the variables of interest. Correlations were conducted between the variables of interest and age, education, and prenatal depressive symptomology to identify possible covariates. Independent group t-tests were conducted to explore if variables of interest differ based upon infant gender.

Data were inspected for patterns of missingness. At six months postpartum, six wives and 11 husbands of the original 80 no longer participated in the study. By sixteen months postpartum, 21 wives and 35 husbands of the original 80 no longer participated. During this time four of the families moved outside of the state in which data were collected. The rest of the families either declined to participate or could not be located. Given that attrition was higher among husbands than wives, steps were taken to understand if husbands' attrition was associated with their marital satisfaction. First, the correlation between men and women's marital satisfaction at each time point was estimated. If men and women's marital satisfaction was highly correlated, an independent group t-test was conducted to examine if there are significant differences in women's marital satisfaction based upon whether or not their partner participated at that time point.

If women whose partners did not participate in the study at that time point were less satisfied than women whose partners did participate in the study at that time point, it was concluded that men's attrition was attributable to marital satisfaction. In this case, results of the current study were conservative because the variance component associated with the linear estimate for men's marital satisfaction will be smaller than it would have been if attrition was not associated with men's satisfaction.

Hypotheses were tested using structural equation modeling and the AMOS 16 program. Structural equation modeling is an appropriate method to use for the current study because it allows for adjustment of dependencies that are associated with dyadic data. Furthermore, AMOS uses full information maximum likelihood (FIML) procedures to account for missing data which is a superior approach to listwise deletion and regression (Acock, 2005). Model fit was evaluated using a variety of fit indices including chi-square, root mean square error of approximation (RMSEA), the comparative fit index (CFI), and the normed fit index (NFI). A non-significant chi-square indicates that the model fits the data well; however, the chi-square statistic is dependent upon sample size. RMSEA values less than .05 indicate an excellent fitting model, RMSEA values less than .08 indicate an acceptable fitting model. CFI and NFI values which approach 1 are indicative of an acceptable fitting model. The significance level for all models was set at  $p < .05$ .

To adjust for dependencies between each partner's marital satisfaction, covariances between the error terms for women's and men's marital satisfaction were estimated. Consistent with a multilevel modeling perspective, these covariances between

the error terms for husbands' and wives' marital satisfaction were set to be equal across the three time points (Kashy & Donnellan, 2008). To adjust for dependencies that are associated with repeated measures, variances for each of the error terms associated with marital satisfaction at each time point were also set to be equal across each time point and across husbands and wives (Kashy & Donnellan). A second error term for each variable was manually set to equal the proportion of unreliable variability (variance \* (1 - alpha)).

To evaluate change in marital satisfaction across the transition to parenthood, marital satisfaction at each time point was represented as a manifest indicator of two latent factors, one factor which represents the intercept and one factor which represents linear change in marital satisfaction over time. Time was centered at six months postpartum and was coded as -7 to represent the prenatal period, 0 to represent six months postpartum, and 10 to represent 16 months postpartum. Therefore, the intercept for wives' and husbands' marital satisfaction was interpreted as marital satisfaction at six months postpartum. Setting the intercept at six months postpartum allowed for logical interpretation of postnatal variables as predictors of the intercept. Had the intercept been set to equal the prenatal assessment of marital satisfaction, it would not have made conceptual sense to examine marital aggression and infant negative emotionality, which were both measured at six months postpartum, as predictors of the intercept representing the prenatal period. Setting marital satisfaction at six months as the intercept allowed for the examination of hypothesized predictors of marital satisfaction at this time. Setting the intercept at six months postpartum was also superior to setting the intercept at 16 months postpartum because there was a larger proportion of missing data at 16 months than there

was at six months postpartum. Once the final unconditional growth curve model was specified, both husbands' and wives' remembered parental rejection was added as a manifest predictor of change. Following this, interaction terms between remembered parental rejection and infant negative emotionality, as well as the main effect of infant negative emotionality were added to the conditional growth curve model to test the moderating effect of infant negative emotionality on the association between remembered parental rejection and change in marital satisfaction over time. Consistent with procedures outlined by Aiken and West (1991) and Whisman & McClelland (2005), significant interaction effects were probed by examining conditional growth curve models at high ( $> 1$  SD) versus low ( $< 1$  SD) levels of infant negative emotionality.

If remembered parental rejection was a significant predictor, the mediating pathways were tested next. To evaluate mediating pathways, associations between the predictor and mediator as well as between the mediator and outcome were examined. If these pathways were statistically significant, the influence of the mediating variable on dependent variable was constrained to zero. Following this, the mediating variable was allowed to influence the outcome. If significant pathways dropped to non-significant when the mediating variable is allowed to influence the outcome, the significance of the indirect pathway was evaluated using bootstrapping procedures. Similarly, if remembered parental rejection was not a significant predictor, indirect pathways from parental rejection to marital aggression and from marital aggression to marital satisfaction were examined and evaluated using bootstrapping procedures.

To evaluate moderated mediation effects, interaction terms between remembered parental rejection and infant negative emotionality, as well as the main effect of infant negative emotionality were added as predictors of marital aggression. Significant interaction effects were probed by examining conditional growth curve models at high versus low levels of infant negative emotionality consistent with procedures outlined above.

## CHAPTER IV

### RESULTS

Results are organized in four sections. First, results of the preliminary analyses are presented including descriptive statistics, correlations between the variables of interest, and the examination of possible control variables. Second, results of the unconditional dyadic growth curve model examining change in wives' and husbands' marital satisfaction are presented. Third, results of the hypothesized conditional growth curve models with predictors of change in marital satisfaction are presented. Finally, results of post-hoc conditional growth curve models with re-specified predictors of change in marital satisfaction are presented.

#### *Preliminary Analyses*

Descriptive statistics and correlations between the variables of interest are displayed in Table 1. Wives' remembered parental rejection was not associated with wives' marital satisfaction at any of the three time points. In contrast, wives' remembered parental rejection was negatively associated with husbands' satisfaction in the prenatal period and at sixteen months postpartum. Husbands' remembered parental rejection was not associated with husbands' or wives' marital satisfaction at any time point. Wives' remembered parental rejection was positively associated with wives' marital aggression at six months postpartum but was not associated with husbands' marital aggression

Husband' remembered parental rejection was not associated with husbands' or wives' marital aggression.

Wives' marital aggression at six months postpartum was negatively associated with wives' marital satisfaction at six months postpartum but not in the prenatal period or at sixteen months postpartum. Wives' marital aggression at six months postpartum was negatively associated with husbands' marital satisfaction at all three time points.

Husbands' marital aggression at six months postpartum was negatively associated with husbands' marital satisfaction at all three time points. Husbands' marital aggression at six months postpartum was also negatively associated with wives' marital satisfaction in the prenatal period and at six months postpartum but not at sixteen months postpartum. Infant negative emotionality was not associated with remembered parental rejection, marital aggression, or marital satisfaction.

Correlations between the variables of interest and wives' and husbands' age and education revealed that wives' education was positively associated with wives' marital aggression but was not associated with marital satisfaction at any time point. Therefore, wives' education was not included as a control variable in subsequent analyses.

Husbands' education was negatively associated with husbands' marital satisfaction at six months postpartum but was not associated with remembered parental rejection or marital aggression, therefore husbands' education was not included as a control variable. Age was not associated with any of the variables of interest and was also therefore not included as a control. In contrast, wives' depressive symptoms were positively associated with wives' remembered parental rejection and both wives' and husbands' marital

aggression. Furthermore, wives' depressive symptoms were negatively associated with wives' marital satisfaction in the prenatal period and at six months postpartum.

Similarly, husbands' depressive symptoms were positively associated with wives' remembered parental rejection and husbands' marital aggression. Husbands' depressive symptoms were negatively associated with husbands' marital satisfaction at all three time points and with wives' marital satisfaction in the prenatal period. Therefore, both wives' and husbands' depressive symptoms were considered as covariates in the substantive analyses.

Independent group t-tests demonstrated no differences in any of the variables of interest based upon infant gender. Furthermore, there was no difference in wives' marital satisfaction based upon husbands' attrition, therefore it was concluded that husbands' attrition was not linked with husbands' marital satisfaction.

Table 1. *Descriptive Statistics and Correlations between the Variables*

Variables	1	2	3	4	5	6	7	8
1. Wives' Prenatal Remembered Rejection	--							
2. Husbands' Prenatal Remembered Rejection	-.03	--						
3. Wives' 6 Month Aggression	.23*	-.10	--					
4. Husbands' 6 Month Aggression	.19	-.13	.73**	--				
5. Infant 6 Month Negative Emotionality	.09	.13	.05	.11	--			
6. Wives' Prenatal Satisfaction	-.16	-.16	-.19	-.30**	-.04	--		
7. Wives' 6 Month Satisfaction	-.21	-.03	-.40**	-.35**	-.15	.58**	--	
8. Wives' 16 Month Satisfaction	-.11	.08	-.05	-.11	-.21	.50**	.59**	--
9. Husbands' Prenatal Satisfaction	-.25*	-.10	-.40**	-.41**	-.09	.55**	.46**	.10
10. Husbands' 6 Month Satisfaction	-.22	-.08	-.31**	-.25*	-.07	-.34**	.47**	.23
11. Husbands' 16 Month Satisfaction	-.38*	-.02	-.33*	-.41**	-.12	.40**	.49**	.39**

Table 1. *Continued*

Variables	1	2	3	4	5	6	7	8
12. Wives' Prenatal Depressive Symptoms	.28*	.17	.28*	.28*	.05	-.38**	-.33**	-.18
13. Husbands' Prenatal Depressive Symptoms	.26*	-.07	.12	.28*	.02	-.30**	-.22	-.06
14. Wives' Prenatal Age	.01	-.17	.06	.08	.04	.09	-.10	-.06
15. Husbands' Prenatal Age	.07	-.13	.07	.09	.14	-.05	-.01	.04
16. Wives' Prenatal Education	.01	.02	.25*	.20	.03	.00	-.13	.10
17. Husbands' Prenatal Education	-.07	-.13	.18	.20	.12	.02	-.19	.14
<i>M</i>	.00	.00	.62	.65	.00	5.64	5.48	5.16
<i>SD</i>	.54	.53	.32	.31	.71	.73	.82	.97
<i>Min</i>	-.64	-.62	.10	.11	-1.63	3.50	3.00	2.25
<i>Max</i>	1.63	1.58	1.85	1.71	1.76	7.00	6.88	7.00

Table 1. *Continued*

Variables	9	10	11	12	13	14	15	16	17
9. Husbands' Prenatal Satisfaction	--								
10. Husbands' 6 Month Satisfaction	.67**	--							
11. Husbands' 16 Month Satisfaction	.54**	.66**	--						
12. Wives' Prenatal Depressive Symptoms	-.24*	-.18	-.23	--					
13. Husbands' Prenatal Depressive Symptoms	-.34**	-.29*	-.41**	.24*	--				
14. Wives' Age	.02	-.17	.03	.09	-.07	--			
15. Husbands' Age	-.12	-.21	-.05	.10	.04	.62**	--		
16. Wives' Education	-.06	-.17	-.15	.16	-.20	.34**	.12	--	
17. Husbands' Education	-.14	-.29*	-.06	-.01	-.05	.34**	.10	.66**	--
<i>M</i>	5.58	5.50	5.11	29.98	28.39	29.61	30.79	4.90	4.64
<i>SD</i>	.67	.82	.86	6.82	6.55	3.57	4.71	1.00	1.26
<i>Min</i>	4.25	2.88	2.25	20.00	20.00	22.00	22.00	1.00	1.00
<i>Max</i>	7.00	7.00	6.88	50.00	49.00	40.00	43.00	6.00	6.00

Note: \*  $p < .05$ . \*\*  $p < .01$ . *N*s for correlations range from 44 to 80 due to missing data.

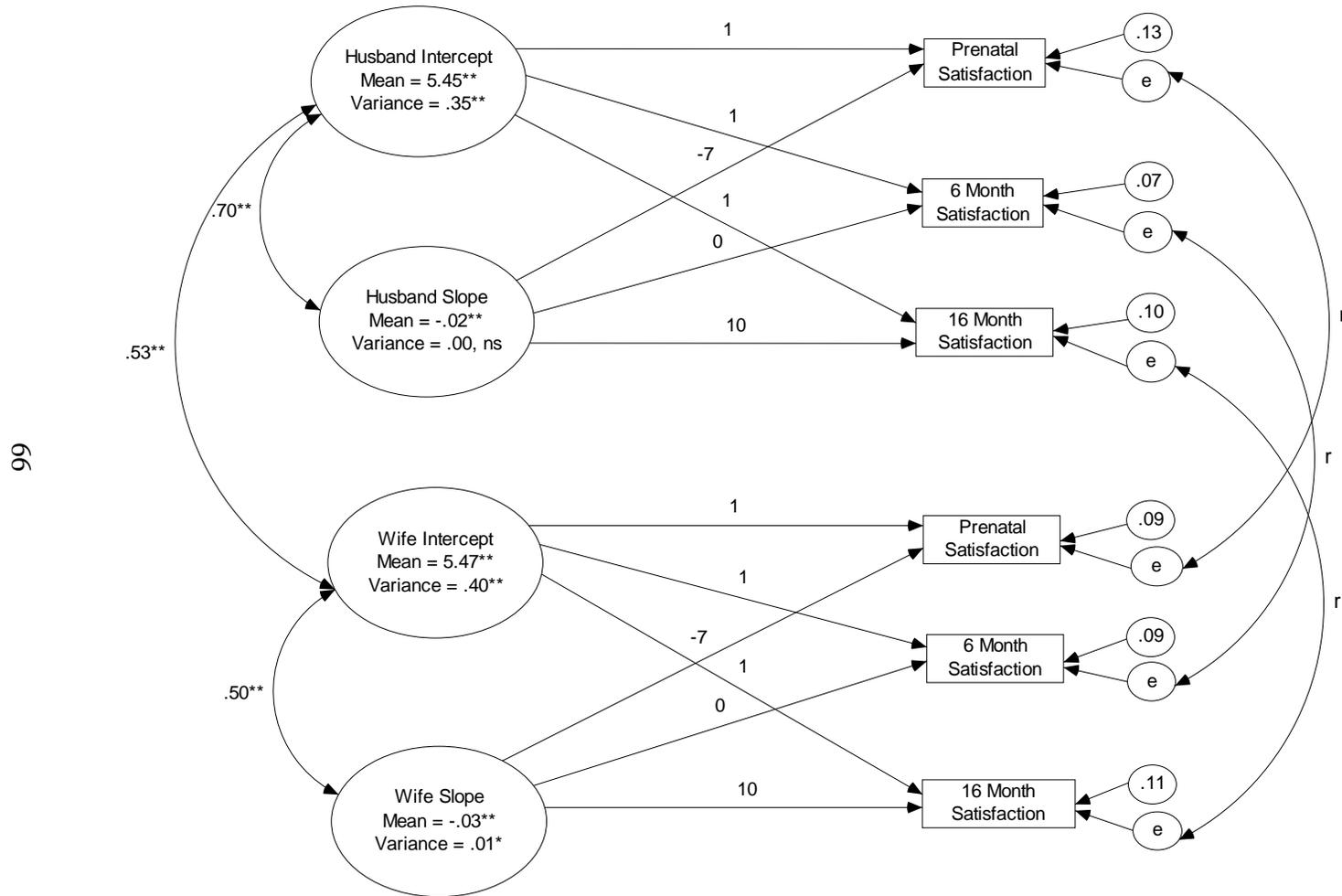
### *Unconditional Dyadic Growth Curve Model*

Prior to hypothesis testing, an unconditional growth curve model which simultaneously examined both wives' and husbands' change in marital satisfaction across the transition to parenthood was estimated. This was necessary to examine if there was significant variation around wives' and husbands' slopes for change in marital satisfaction to warrant the examination of hypothesized predictors of change. First, an unconditional growth curve model with all covariances between the latent intercepts and slopes for husbands and wives was specified. This unconditional growth curve model essentially allowed for the intercepts and slopes for wives' and husbands' marital satisfaction to be correlated with each other within and between husbands and wives. However, this unconditional growth curve model resulted in an inadmissible solution. Inadmissible solutions occur when illogical parameter estimates are generated, for example if the AMOS program fits a model with correlations that are greater than 1.0 or negative variance estimates (Kline, 2005). In the current study, the inadmissible solution was due to the estimation of the covariance matrix for the latent intercepts and slopes, which in this case was not positive definite. A covariance matrix which is not positive definite occurs under a number of conditions including model misspecification, small sample sizes, and a large proportion of missing data (Kline). Because it is inappropriate to interpret the results of an inadmissible solution, a number of steps were taken to explore the cause of this error message.

First, covariances between the latent intercepts and slopes were individually examined. Examination of the individual covariances between the latent intercepts and

slopes revealed that the covariance between the intercept for husbands and the slope for wives ( $cov = -.01 (.00)$ , *ns*), the covariance between the intercept for wives and the slope for husbands ( $cov = .00 (.00)$ , *ns*), and the covariance between the slope for husbands and the slope for wives ( $cov = .01 (.00)$ , *ns*) were all not significant. Therefore, it was possible that the inadmissible solution resulted from model misspecification. These covariances, which also happened to be the most complex associations across the latent intercepts for husbands and wives, were removed from the unconditional growth curve model. At this point the unconditional model successfully identified and there were no errors messages indicating an inadmissible solution. Importantly, these covariances were individually removed and also individually added to the growth curve model using both a top-down and bottom-up approach and resulted in the same model. This final unconditional dyadic growth curve model, which demonstrated an acceptable fit to the data, is displayed in Figure 2.

Figure 2. *Final Unconditional Dyadic Growth Curve Model (N 80)*



Note:  $\chi^2 (14) = 23.52, ns$ ; CFI = .94; NFI = .86; RMSEA = .09 ; \*  $p < .05$ . \*\* $p < .01$ .; Coefficients are standardized.

As illustrated in Figure 2, the intercept for both wives and husbands was significantly different from zero and there was significant variation around the intercepts demonstrating that there was variation in wives' and husbands' reports of marital satisfaction at six months postpartum. In the estimation of change in marital satisfaction over time, results demonstrated that there was significant decline in marital satisfaction across the transition to parenthood for both wives and husbands. Comparing an unconditional model in which wives' and husbands' slopes for marital satisfaction were fixed to be equal versus the model in which they were free to vary, there was a statistically significant change in chi-square ( $\Delta\chi^2(2) = 71.08, p < .01$ ). Therefore it was concluded that wives experienced sharper declines in marital satisfaction than husbands.

The intercept for husbands was positively associated with the slope for husbands. Likewise, the intercept for wives was positively associated with the slope for wives. Husbands and wives who experience lower marital satisfaction at six months postpartum tended to experience declines in marital satisfaction across the transition to parenthood. The intercept for husbands and the intercept for wives were also positively associated with each other. Husbands who experienced lower marital satisfaction at six months postpartum tended to have wives who experienced lower marital satisfaction at six months postpartum as well.

In addition to mean change in marital satisfaction over time, there was significant variability around the slope for wives, indicating that that wives' experienced differential trajectories of change in marital satisfaction. There was no variability around the slope for husbands. Given that there was not variability in husbands' trajectories of change in

marital satisfaction, it was inappropriate to estimate predictors of change (Karney & Bradbury, 1995b). Therefore, hypothesized predictors of change in marital satisfaction over time were only examined as predictors of wives' change in marital satisfaction.

*Hypothesized Conditional Dyadic Growth Curve Models*

The first conditional dyadic growth curve model tested the first two hypotheses and examined spillover and crossover effects of wives' and husbands' remembered parental rejection on the intercept for marital satisfaction for both husbands and wives as well as the slope for wives' change in marital satisfaction over time. This model demonstrated a good fit to the data, but as illustrated in Table 2, neither wives' nor husbands' remembered parental rejection were significant predictors of the intercept for marital satisfaction for wives or husbands, or change in marital satisfaction over time for wives.

Table 2. *Unstandardized, Standardized, and Significance Levels for Direct Effects*

*Model; Standard Errors in Parentheses (N = 80)*

Parameter Estimate	Unstandardized	Standardized	<i>p</i>
Wives' Rejection → Wives' Satis Intercept	-.04 (.14)	-.03	.76
Wives' Rejection → Husbands' Satis Intercept	-.19 (.13)	-.17	.16
Wives' Rejection → Wives' Satis Slope	.01 (.01)	.14	.51
Husbands' Rejection → Wives' Satis Intercept	-.02 (.14)	-.02	.87
Husbands' Rejection → Husbands' Satis Intercept	-.14 (.13)	-.13	.28
Husbands' Rejection → Wives' Satis Slope	.02 (.01)	.27	.17

*Note:*  $\chi^2(30) = 40.52, ns$ ; CFI = .94; NFI = .82; RMSEA = .07

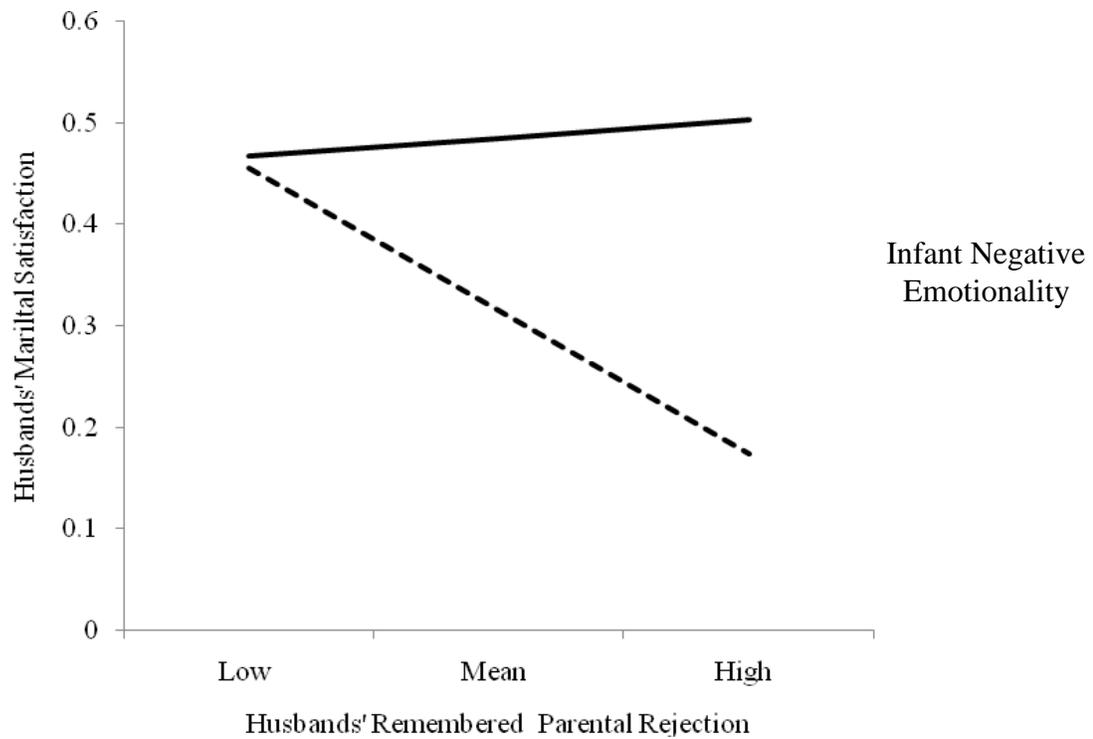
The second conditional dyadic growth curve model tested the third hypothesis and examined the moderating effect of infant negative emotionality on the association between wives' and husbands' remembered parental rejection and both spouses' marital satisfaction intercepts and slope for change in wives' marital satisfaction over time. As illustrated in Table 3, the interaction between husbands' recollections of parental rejection and infant negative emotionality approached significance ( $p = .06$ ) as a predictor of the intercept for husbands' marital satisfaction. Given difficulty detecting interacting effects in non-experimental research designs (McClelland & Judd, 1993), the interaction effect was interpreted. Consistent with prediction and as illustrated in Figure 2, there was a negative association between husbands' recollections of parental rejection and their marital satisfaction if their infants were high on negative emotionality ( $B = -.34$ ,  $SE = .13$ ,  $p < .01$ ). If their infants were low on negative emotionality there was no association between husbands' recollections of parental rejection and their marital satisfaction ( $B = .10$ ,  $SE = .13$ ,  $ns$ ). The interaction between wives' remembered parental rejection and infant negative emotionality was not a significant predictor of the intercept for wives or the slope for wives' change in marital satisfaction over time.

Table 3. *Unstandardized, Standardized, and Significance Levels for Moderated Direct Effects Model; Standard Errors in Parentheses (N = 80)*

Parameter Estimate	Unstandardized	Standardized	<i>p</i>
Wives' Rejection → Wives' Satis Int	-.03 (.14)	-.02	.85
Wives' Rejection → Husbands' Satis Int	-.18 (.13)	-.17	.17
Wives' Rejection → Wives' Satis Slope	.01 (.01)	.15	.44
Husbands' Rejection → Wives' Satis Int	.00 (.14)	.00	.99
Husbands' Rejection → Husbands' Satis Int	-.13 (.13)	-.11	.33
Husbands' Rejection → Wives' Satis Slope	.02 (.01)	.33	.09
Infant Neg Emot → Wives' Satis Int	-.09 (.10)	-.11	.37
Infant Neg Emot → Husbands' Satis Int	-.09 (.10)	-.12	.33
Infant Neg Emot → Wives' Satis Slope	-.01 (.01)	-.31	.10
Wife Rej X Neg Emot → Wives' Satis Int	.10 (.20)	.05	.62
Wife Rej X Neg Emot → Wives' Satis Slope	-.00 (.02)	-.03	.86
Hus Rej X Neg Emot → Husbands' Satis Int	-.33 (.17)	-.20	.06

*Note:*  $\chi^2 (57) = 82.06, p < .05$ ; CFI = .86; NFI = .70; RMSEA = .07

Figure 3. *Infant Negative Emotionality as a Moderator of the Association Between Husbands' Remembered Parental Rejection and Husbands' Marital Satisfaction*



Because there was no direct effect of remembered parental rejection on the intercept for marital satisfaction or the slope for change in wives' marital satisfaction over time, it was inappropriate to test the final two hypotheses examining the mediating effect of marital aggression. However, it was possible that there was a significant indirect effect. Although the correlation between husbands' remembered rejection and their marital aggression was not significant, the spillover effect was still tested for husbands because it was possible that there was a significant effect when depressive symptoms were controlled for and when the effect was tested in the presence of the other variables of interest. Therefore, the third conditional dyadic growth curve model examined the indirect effect of wives' and husbands' remembered parental rejection on the intercept and slope for marital satisfaction over time through both wives' and husbands' marital aggression. As illustrated in Table 4, results demonstrated that wives' remembered parental rejection was not associated with wives' marital aggression at six months postpartum, and husbands' remembered parental rejection was not associated with husbands' marital aggression at six months postpartum. Therefore, it was concluded that there was no indirect effect of remembered parental rejection on the intercept or slope for change in marital satisfaction over time through marital aggression at six months. Wives' marital aggression was negatively associated with the intercept for husbands' marital satisfaction. Husbands whose wives who used more aggressive strategies to resolve marital conflict experienced lower marital satisfaction at six months postpartum than husbands whose wives used fewer aggressive strategies to resolve marital conflict.

Table 4. *Unstandardized, Standardized, and Significance Levels for Indirect Effects*

*Model; Standard Errors in Parentheses (N = 80)*

Parameter Estimate	Unstandardized	Standardized	<i>p</i>
Wives' Rejection → Wives' Aggression	.10 (.07)	.17	.14
Husbands' Rejection → Husbands' Aggression	-.06 (.07)	-.10	.35
Wives' Aggression → Wives' Satis Int	-.11 (.24)	-.06	.65
Wives' Aggression → Husbands' Satis Int	-.61 (.22)	-.34	.01
Wives' Aggression → Wives' Satis Slope	.00 (.02)	.10	.97
Husbands' Aggression → Wives' Satis Int	-.39 (.25)	-.20	.12
Husbands' Aggression → Husbands' Satis Int	-.07 (.23)	-.04	.77
Husbands' Aggression → Wives' Satis Slope	.02 (.02)	.16	.46

*Note:*  $\chi^2 (47) = 109.90, p < .01$ ; CFI = .74; NFI = .65; RMSEA = .13

Although remembered parental rejection was not linked with marital aggression among wives or husbands, it was possible that infant negative emotionality moderated the association between remembered parental rejection and marital aggression. Therefore, the fourth conditional dyadic growth curve model tested the moderating effect of infant negative emotionality on the association between remembered parental rejection and marital aggression. As illustrated in Table 5, the interaction between wives' remembered parental rejection and infant negative emotionality was not a significant predictor of wives' marital aggression. Similarly, the interaction between husbands' remembered parental rejection and infant negative emotionality was not a significant predictor of husbands' marital aggression. Since remembered parental rejection was not associated with marital aggression independently or in conjunction with infant negative emotionality, remembered rejection did not influence marital satisfaction at six months for husbands or wives or wives' change in marital satisfaction over time. Therefore, there was no evidence that infant negative emotionality moderated the mediated link between remembered rejection and change in marital satisfaction across the transition to parenthood.

In sum, results of the hypothesized conditional growth curve models demonstrated that there was no spillover effect of wives' remembered parental rejection on the intercept for wives' marital satisfaction or change in wives' marital satisfaction over time. In contrast, there was a negative association between husbands' recollections of parental rejection and their marital satisfaction at six months postpartum only if their infants were high on negative emotionality. There was no significant crossover effects in

the prediction of husbands' or wives' marital satisfaction. Furthermore, there was no evidence of marital aggression as a mediating mechanism.

Table 5. *Unstandardized, Standardized, and Significance Levels for Moderated Indirect Effects Model; Standard Errors in Parentheses (N = 80)*

Parameter Estimate	Unstandardized	Standardized	<i>p</i>
Wives' Rejection → Wives' Aggression	.13 (.07)	.22	.06
Husbands' Rejection → Husbands' Aggression	-.07 (.07)	-.12	.30
Infant Neg Emot → Wives' Aggression	.02 (.05)	.05	.68
Infant Neg Emot → Husbands' Aggression	.05 (.05)	.12	.28
Wives' Rej X Inf Neg Emot → Wives' Agg	.07 (.11)	.07	.52
Husbs' Rej X Inf Neg Emot → Husbands' Agg	.04 (.10)	.04	.70
Wives' Aggression → Wives' Satis Intercept	-.08 (.23)	-.04	.72
Wives' Aggression → Husbands' Satis Intercept	-.63 (.21)	-.35	.00
Wives' Aggression → Wives' Satis Slope	.00 (.02)	.00	.98
Husbands' Aggression → Wives' Satis Intercept	-.41 (.25)	-.21	.11
Husbands' Aggression → Husbands' Satis Intercept	-.06 (.23)	-.03	.81
Husbands' Aggression → Wives' Satis Slope	.02 (.02)	.16	.46

*Note:*  $\chi^2(47) = 164.95, p < .01$ ; CFI = .67; NFI = .55; RMSEA = .11

### *Post-hoc Conditional Dyadic Growth Curve Models*

Because none of the hypothesized variables were significant predictors of the intercept for wives' and husbands' marital satisfaction or change in wives' marital satisfaction over time, a set of post-hoc analyses were conducted. Previous research has revealed that mothers and fathers have differential effects on children's adjustment (Stolz, Barber, & Olsen, 2005). Indeed, mother-child relationship quality, but not father-child relationship quality, exerts a spillover effect on both husbands' and wives' marital hostility (Topham et al., 2005). Therefore, in the post-hoc conditional dyadic growth curve models remembered parental rejection from mothers and fathers were tested separately. That is, the composite for remembered parental rejection was pulled apart and four individual variables were tested as predictors of marital satisfaction: wives' remembered rejection from mothers in childhood ( $M = .00$ ,  $SD = .58$ ,  $Range -.52 - 1.88$ ), wives' remembered rejection from fathers in childhood ( $M = .00$ ,  $SD = .69$ ,  $Range -.73 - 2.13$ ), husbands' remembered rejection from mothers in childhood ( $M = .00$ ,  $SD = .65$ ,  $Range -.72 - 2.28$ ), and husbands' remembered rejection from fathers in childhood ( $M = .00$ ,  $SD = .48$ ,  $Range -.48 - 1.72$ ).

In the first post-hoc conditional dyadic growth curve model, the direct effects of wives' and husbands' remembered maternal and paternal rejection were considered. As illustrated in Table 6, there was a statistically significant crossover effect of wives' remembered rejection from fathers during childhood on the intercept for husbands' marital satisfaction. Husbands whose wives recalled more rejection from their fathers in childhood experienced lower marital satisfaction at six months postpartum than

husbands' whose wives remembered less rejection from their fathers in childhood.

Therefore, there was evidence of a crossover effect of wives' remembered paternal rejection on the intercept for husbands' marital satisfaction.

Table 6. *Unstandardized, Standardized, and Significance Levels for Post-Hoc Direct Effects Model; Standard Errors in Parentheses (N = 80)*

Parameter Estimate	Unstandardized	Standardized	<i>p</i>
Wives' Mat Rej → Wives' Satisfaction Int	.03 (.13)	.03	.81
Wives' Mat Rej → Husbands' Satisfaction Int	.05 (.11)	.05	.69
Wives' Mat Rejn → Wives' Satisfaction Slope	.00 (.01)	.08	.69
Wives' Pat Rej → Wives' Satisfaction Int	-.12 (.12)	-.13	.32
Wives' Pat Rej → Husbands' Satisfaction Int	-.30 (.10)	-.36	.00
Wives' Pat Rej → Wives' Satisfaction Slope	.01 (.01)	.11	.62
Husbands' Mat Rej → Wives' Satisfaction Int	-.13 (.15)	-.10	.39
Husbands' Mat Rej → Husbands' Satisfaction Int	-.24 (.14)	-.20	.09
Husbands' Mat Rej → Wives' Satisfaction Slope	.02 (.01)	.24	.24
Husbands' Pat Rej → Wives' Satisfaction Int	.08 (.12)	.09	.48
Husbands' Pat Rej → Husbands' Satisfaction Int	.05 (.11)	.06	.63
Husbands' Pat Rej → Wives' Satisfaction Slope	.00 (.01)	.08	.72

*Note:*  $\chi^2(43) = 91.95, p < .01$ ; CFI = .77; NFI = .69; RMSEA = .12

In the second post-hoc conditional dyadic growth curve model, the moderating effect of infant negative emotionality on the spillover effect of remembered parental rejection on marital satisfaction was examined. Consistent with the interaction effect which approached significance in the main analyses testing the interaction effect of remembered parental rejection and infant negative emotionality, the interaction between husbands' recollections of maternal rejection and infant negative emotionality was a significant predictor of the intercept for husbands' marital satisfaction. As illustrated in Figure 3, there was a negative association between husbands' recollection of maternal rejection and their marital satisfaction if their infants were high on negative emotionality ( $B = -.40, SE = .14, p < .01$ ). There was no association between husbands' recollections of maternal rejection and their marital satisfaction if their infants were low on negative emotionality ( $B = .07, SE = .14, ns$ ). Therefore, there was evidence of a moderated spillover effect of remembered maternal rejection among husbands. In contrast to the results of the hypothesized conditional growth curve models, infant negative emotionality was negatively associated with the slope for wives' change in marital satisfaction across the transition to parenthood ( $B = -.02, SE = .01, p < .05$ ). Wives whose infants who were higher on negative emotionality experienced greater declines in marital satisfaction across the transition to parenthood than wives whose infants were lower on negative emotionality. However, infant negative emotionality did not moderate the association between wives' remembered parental rejection and wives' change in marital satisfaction.

Table 7. *Unstandardized, Standardized, and Significance Levels for Post-Hoc Moderated Direct Effects Model; Standard Errors in Parentheses (N = 80)*

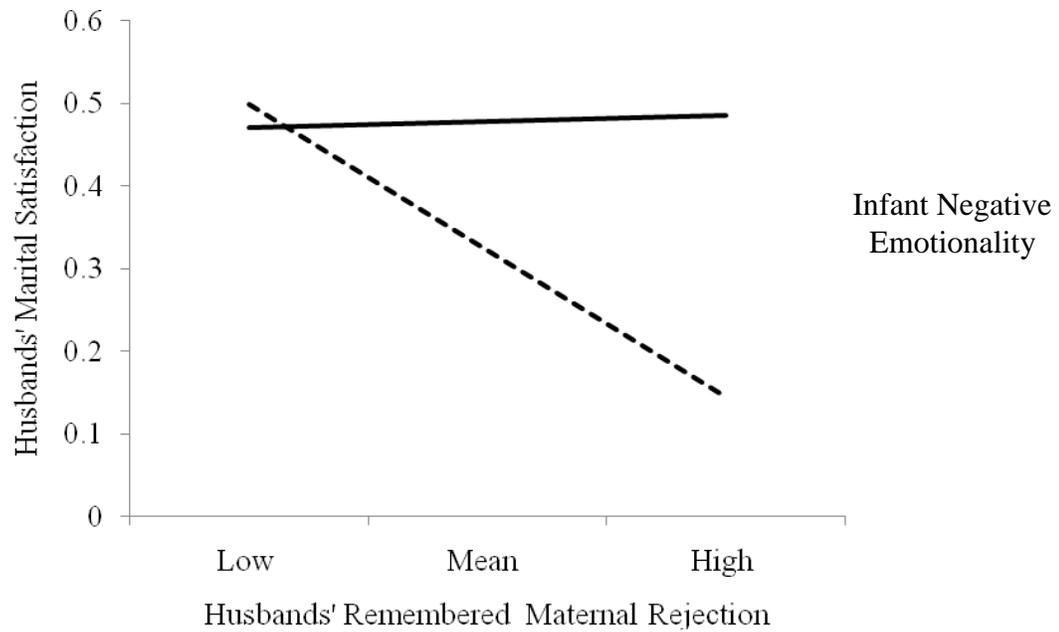
Parameter Estimate	Unstandardized	Standardized	<i>p</i>
Wives' Mat Rej → Wives' Satisfaction Int	.06 (.12)	.06	.61
Wives' Mat Rej → Husbands' Satisfaction Int	.04 (.11)	.04	.71
Wives' Mat Rej → Wives' Satisfaction Slope	.01 (.01)	.12	.53
Wives' Pat Rej → Wives' Satisfaction Int	-.11 (.11)	-.12	.32
Wives' Pat Rej → Husbands' Satisfaction Int	-.30 (.10)	-.35	.00
Wives' Pat Rej → Wives' Satisfaction Slope	.01 (.01)	.11	.60
Husbands' Mat Rej → Wives' Satisfaction Int	-.14 (.15)	-.10	.37
Husbands' Mat Rej → Husbands' Satisfaction Int	-.16 (.14)	-.13	.26
Husbands' Mat Rej → Wives' Satisfaction Slope	.02 (.01)	.24	.21
Husbands' Pat Rej → Wives' Satisfaction Int	.10 (.12)	.10	.41
Husbands' Pat Rej → Husbands' Satisfaction Int	.02 (.10)	.02	.87
Husbands' Pat Rej → Wives' Satisfaction Slope	.01 (.01)	.11	.56
Infant Neg Emot → Wives' Satisfaction Int	-.14 (.10)	-.15	.19
Infant Neg Emot → Husbands' Satisfaction Int	-.09 (.09)	-.11	.34
Infant Neg Emot → Wives' Satisfaction Slope	-.02 (.01)	-.37	.04

Table 7. *Continued*

Parameter Estimate	Unstandardized	Standardized	<i>p</i>
Wives' Mat Rej X Neg Emot → Wives' Sat Int	-.22 (.19)	-.12	.26
Wives Mat Rej X Neg Emot → Wives' Sat Slope	-.02 (.02)	-.21	.25
Wives Pat Rej X Neg Emot → Wives' Sat Int	.19 (.14)	.15	.16
Wives Pat Rej X Neg Emot → Wives Sat Slope	.01 (.01)	.12	.54
Husbands' Mat Rej X Neg Emot → Hus' Sat Int	-.36 (.18)	-.20	.05
Husbands' Pat Rej X Neg Emot → Hus' Sat Int	-.00 (.14)	-.00	.99

*Note:*  $\chi^2$  (104) = 249.10,  $p < .01$ ; CFI = .53; NFI = .46; RMSEA = .13

Figure 4. *Infant Negative Emotionality as a Moderator of the Association Between Husbands' Remembered Maternal Rejection and Husbands' Marital Satisfaction*



The third post-hoc conditional growth curve model tested the indirect effects of remembered maternal and paternal rejection on the intercepts and slopes for change in marital satisfaction over time through marital aggression. As illustrated in Table 8, wives' remembered maternal and paternal rejection were not associated with wives' marital aggression. Likewise, husbands' remembered maternal and paternal rejection were not associated with husbands' marital aggression. Therefore, there was no evidence of a mediating or indirect effect of marital aggression on the association between parental rejection and marital satisfaction. Consistent with the primary analyses, wives' marital aggression was negatively associated with the intercept for husbands' marital satisfaction.

Table 8. *Unstandardized, Standardized, and Significance Levels for Post-Hoc Indirect Effects Model; Standard Errors in Parentheses (N = 80)*

Parameter Estimate	Unstandardized	Standardized	<i>p</i>
Wives' Mother Rejection → Wives' Agg	.03 (.06)	.06	.59
Wives' Father Rejection → Wives' Agg	.10 (.06)	.22	.07
Husbands' Mother Rejection → Husbands' Agg	-.02 (.07)	-.03	.79
Husbands' Father Rejection → Husbands' Agg	-.03 (.06)	-.06	.59
Wives' Father Rejection → Husbands' Int	-.19 (.10)	-.22	.05
Wives' Aggression → Wives' Satis Int	-.12 (.24)	-.06	.63
Wives' Aggression → Husbands' Satis Int	-.51 (.22)	-.29	.02
Wives' Aggression → Wives' Satis Slope	.00 (.02)	.01	.96
Husbands' Aggression → Wives' Satis Int	-.39 (.25)	-.20	.13
Husbands' Aggression → Husbands' Satis Int	-.07 (.23)	-.04	.76
Husbands' Aggression → Wives' Satis Slope	.02 (.02)	.16	.47

*Note:*  $\chi^2(67) = 165.78, p < .01$ ; CFI = .65; NFI = .57; RMSEA = .14

The final post-hoc conditional growth curve model tested the moderating effect of infant negative emotionality on the association between remembered maternal and paternal rejection and marital aggression at six months postpartum. As illustrated in Table 9, none of the interactions between remembered maternal and paternal rejection and infant negative emotionality for both wives' and husbands' were significant predictors of marital aggression at six months postpartum. Therefore, there was no evidence of moderated mediation in the post-hoc analyses.

In sum, consistent with the hypothesized conditional growth curve models there was no spillover effect of wives' remembered maternal or paternal rejection on the intercept for wives' marital satisfaction or change in wives' marital satisfaction over time. There was a negative association between husbands' remembered maternal rejection and their marital satisfaction at six months postpartum only if their infants were high on negative emotionality. In contrast to the hypothesized conditional growth models, there was a significant crossover effect of wives' remembered rejection from fathers during childhood on husbands' marital satisfaction at six months postpartum. Husbands' whose wives recalled more rejection from their fathers in childhood were less satisfied in the marriage at six months postpartum. Infant negative emotionality was negatively associated with declines in wives' marital satisfaction across the transition to parenthood. There were no significant crossover effects in the prediction of wives' marital satisfaction. There was no evidence of marital aggression as a mediating mechanism.

Table 9. *Unstandardized, Standardized, and Significance Levels for Post-Hoc Moderated Indirect Effects Model; Standard Errors in Parentheses (N = 80)*

Parameter Estimate	Unstandardized	Standardized	<i>p</i>
Wives' Mat Rej → Wives' Aggression	.04 (.06)	.07	.53
Wives' Pat Rej → Wives' Aggression	.10 (.06)	.21	.08
Husbands' Mat Rej → Husbands' Aggression	-.07 (.07)	-.10	.36
Husbands' Pat Rej → Husbands' Aggression	-.01 (.06)	-.02	.83
Infant Neg Emot → Wives' Aggression	.01 (.05)	.02	.88
Infant Neg Emot → Husbands' Aggression	.05 (.05)	.11	.31
Wives' Mat Rej X Inf Neg Emot → Wives' Agg	-.02 (.10)	-.02	.86
Wives' Pat Rej X Inf Neg Emot → Wives' Agg	.07 (.07)	.10	.36
Husbs' Mat Rej X Inf Neg Emot → Husbs' Agg	.15 (.10)	.16	.14
Husbs' Pat Rej X Inf Neg Emot → Husbs' Agg	-.09 (.08)	-.12	.29
Wives' Pat Rej → Husbands' Satis Intercept	-.18 (.10)	-.23	.05
Wives' Aggression → Wives' Satis Intercept	-.11 (.24)	-.06	.66
Wives' Aggression → Husbands' Satis Int	-.52 (.22)	-.30	.02
Wives' Aggression → Wives' Satis Slope	.00 (.02)	.01	.96
Husbands' Aggression → Wives' Satis Int	-.39 (.25)	-.20	.12
Husbands' Aggression → Husbands' Satis Int	-.06 (.22)	-.03	.79
Husbands' Aggression → Wives' Satis Slope	.02 (.02)	.16	.46

Note:  $\chi^2$  (142) = 343.61,  $p < .01$ ; CFI = .46; NFI = .39; RMSEA = .14

## CHAPTER V

### DISCUSSION

Previous research has revealed that spouses tend to experience significant declines in marital satisfaction across the transition to parenthood (Lawrence et al., 2008); however, there is substantial variability in spouses' trajectories of change in marital satisfaction during this time (Belsky & Kelley, 1994; Doss et al., 2009; Lawrence et al.). A variety of demographic characteristics have been linked with spouses' declines in marital satisfaction (Belsky & Rovine, 1990; Cowan & Cowan, 2000), but it is also possible that characteristics of each partners' relationship with their parents in childhood as well as characteristics of their relationship with each other play an important role as well (Belsky & Isabella, 1985; Belsky & Rovine; Cox et al., 1999). Therefore, there were five goals of the present study. First, self- and partner-remembered parental rejection were considered as predictors of change in marital satisfaction across the transition to parenthood. Second, infant negative emotionality was considered as a moderator of the association between spouses' own remembered parental rejection and their own change in marital satisfaction. Third, spouses' own aggressive strategies to resolve marital conflict at six months postpartum were examined as mediators of the association between spouses' own remembered parental rejection and their own change in marital satisfaction. Fourth, partner aggressive strategies at six months postpartum were examined as

mediators of the association between partners' reports of remembered parental rejection and spouses' own reports of change in marital satisfaction. Finally, infant negative emotionality was examined as a moderator of the associations between remembered parental rejection and marital aggression.

Overall, there was limited support for the hypotheses. Contrary to expectation, there was not significant variation around husbands' change in marital satisfaction across the transition to parenthood, therefore the hypothesized variables were not examined as predictors of change in satisfaction for husbands. Consistent with expectation, there was significant variation around wives' change in marital satisfaction across the transition to parenthood; however, none of the hypothesized variables were significant predictors of change. As expected, there was a significant spillover effect of husbands' remembered parental rejection in childhood on the intercept for their own marital satisfaction, however this occurred only among husbands whose infants were high on negative emotionality. Husbands whose infants were highly reactive and who recalled more rejection from their mothers in childhood were less satisfied in their marriages at six months postpartum. There was also a significant crossover effect of wives' remembered rejection from fathers during childhood on the intercept for husbands' marital satisfaction. Husbands whose wives recalled more rejection from their fathers in childhood were less satisfied in their marriages at six months postpartum, however contrary to prediction this was effect was not mediated by wives' marital aggression. In fact, there was no evidence of marital aggression as a mediating mechanism in the

prediction of change in marital satisfaction over time or marital satisfaction at six months postpartum.

#### Change in Marital Satisfaction over Time

Results of the unconditional dyadic growth curve model indicated that on average, both wives and husbands experienced declines in marital satisfaction across the transition to parenthood. This finding is consistent with previous research demonstrating that declines in marital satisfaction are characteristic of the transition to parenthood (Belsky et al., 1985; Doss et al., 2009; Lawrence et al., 2008). Furthermore, this finding is consistent with the larger marital literature which has demonstrated that marital satisfaction generally declines over the entire lifetime of a marriage (Lindahl et al., 1998; Vaillant & Vaillant, 1993). It appears that on average, changes in the everyday activities of husbands and wives which accompany the birth of a new baby lead to declines in marital satisfaction during this time. As expected, wives in the current study experienced sharper declines in marital satisfaction than husbands. Perhaps wives experience greater declines because they undertake the majority of childcare and household labor following childbirth as has been demonstrated previously in this sample (Leerkes & Burney, 2007), and in others (Cowan & Cowan, 1988; MacDermid, Huston, & McHale, 1990).

Although on average both husbands and wives experienced linear declines in marital satisfaction across the transition to parenthood, results of the unconditional dyadic growth curve model also demonstrated that there was significant variability in wives' experiences of change in marital satisfaction across this transition. This finding is consistent with previous research documenting that some wives experience no change,

and even increases, in marital satisfaction across the transition to parenthood (Cox et al., 1999; Huston & Vangelisit, 1995; Tucker & Aron, 1993). Some wives appear to be better equipped to deal with changes in the family system which accompany childbirth than others. Therefore, the significant degree of variability in individual wives' trajectories of change in marital satisfaction permitted subsequent examination of hypothesized predictors of change.

Contrary to expectation, there was not significant variability across husbands in their trajectories of change in marital satisfaction over the transition to parenthood. The pattern of linear decline in marital satisfaction appeared to characterize almost all husbands in the current sample. This finding is consistent with the perspective that the transition to parenthood is a time of crisis and substantial change for husbands during which marital satisfaction almost always suffers (Pancer, Pratt, Hunsberger, & Gallant, 2000). Perhaps because husbands' parenting identity is not as strong as wives' following childbirth (Cowan, Cowan, Heming, Garrett, Coysh, Curtis-Boles et al., 1985), husbands feel as if they are competing with the newborn infant for their wives' attention and therefore become less satisfied in their marriages across the board (Cowan & Cowan, 2000). This may subsequently result in diminished marital satisfaction among husbands. This consistent pattern of marital decline is in stark contrast to a substantial body of previous research demonstrating that there is significant variability in husbands' trajectories of change in marital satisfaction across the transition to parenthood (Belsky & Kelley, 1994; Doss et al., 2009; Lawrence et al., 2008). Therefore, replication of this finding is needed to better understand the experiences of husbands across this transition.

That the intercepts for husbands' and wives' marital satisfaction at six months postpartum were positively associated with one another is consistent with previous research demonstrating that husbands and wives generally experience similar sentiments regarding their marriage at any one point in time (Feeney, Hohaus, Noller, & Alexander, 2001). In contrast, the slopes for husbands' and wives' change in marital satisfaction over time were not associated. This was not surprising given that there was substantial variability in wives', but not husbands', change in marital satisfaction over time. Therefore it is possible that while some wives experienced no change and even increases in marital satisfaction across the transition to parenthood, their husbands continued to experience declines in marital satisfaction during this time. As wives' sense of self as a marital partner declines, while their sense of self as a mother subsequently increases (Cowan et al., 1985), it is possible that their positive sentiments regarding their parenting experiences spillover to influence their marital evaluations. However because fathers tend to experience less change in their personal identities, they may compare their postnatal marital experiences to their prenatal marital experiences. In particular, husband's marital satisfaction may decline because they feel neglect and rejection from their wives following childbirth because they view their wives as being too "baby focused" (Belsky & Kelly, 1994; Cowan & Cowan, 2000).

#### Direct Effects of Remembered Parental Rejection

##### *Main Effects*

Contrary to expectation, wives' remembered parental rejection did not significantly predict wives' marital satisfaction at six months postpartum or wives'

change in marital satisfaction across the transition to parenthood. Therefore, there was no spillover effect of wives' remembered parental rejection on wives' own marital satisfaction across the transition to parenthood.

This finding is inconsistent with previous research which has demonstrated that remembered parental rejection is linked with declines in marital satisfaction following the birth of a baby (Belsky & Isabella, 1985). The current study was the first however to examine these links utilizing a sample in which all participants were undergoing the transition to parenthood. Furthermore, the current study was the first to examine these links using a dyadic longitudinal design and to examine parental rejection as a predictor of change in marital satisfaction over multiple time points, rather than simply controlling for prenatal satisfaction when estimating postnatal satisfaction in an effort to capture change. Finally, in previous research examining links between remembered parental rejection and change in marital satisfaction across the transition to parenthood, depressive symptoms were not controlled. Thus, it is possible that the significant association between remembered parental rejection and change in wives' marital satisfaction as detected by Belsky and Isabella was the result of a general negative attribution bias, rather than remembered rejection. Therefore, the current study was a more stringent test of the association between remembered parental rejection and change in marital satisfaction across the transition to parenthood.

Remembered parental rejection may not have been linked with change in wives' marital satisfaction across the transition to parenthood because remembered rejection may have an influence on change in marital satisfaction only when wives are faced with

additional risk factors. Among husbands in the current sample, remembered parental rejection was linked with marital satisfaction at six months postpartum only when husbands were faced with an infant high on negative emotionality. Perhaps in the presence of other risk factors which were not considered as moderators in the current study, remembered parental rejection has a spillover effect on wives' marital satisfaction. Socio-economic status may serve as such a risk factor for wives as lower maternal education and family income levels have both been linked with declines in marital satisfaction across the transition to parenthood (Belsky et al., 1985). Supporting this possibility, wives in the current sample were more educated and had higher family incomes than were wives in the sample employed by Belsky and Isabella (1985). Therefore, remembered rejection may be linked with declines in wives' marital satisfaction only when wives are less educated and are financially stressed.

Remembered parental rejection may also not have been linked with change in wives' marital satisfaction over time because some wives in the current study who recall more parental rejection may have come to accept and move forward from their negative childhood experiences. Since highly educated individuals are more likely to utilize mental health services (Steele, Dewa, Lin, & Lee, 2007), it is possible that more individuals in the current sample had come to terms with early childhood adversity than in Belsky and Isabella's sample. Although early experiences are thought to drive expectations for future relationships (Waters et al., 2000), there is a large body of literature documenting adult children who are thought to be "earned secure" despite experiencing higher levels of rejection from their parents in childhood (Main &

Goldwyn, 1993; Pearson, Cohn, Cowan, & Cowan, 1994). Individuals who are earned secure experienced more rejection from their parents in childhood but in adulthood are just as successful in their interpersonal relationships as individuals whose experienced less rejection from their parents in childhood (Paley, Cox, Burchinal, & Payne, 1999; Roisman, Padron, Sroufe, & Egeland, 2002). Indeed, individuals who are earned secure appear to be no different than their “continuously secure” counterparts on various indicators of romantic relationship quality including affect regulation and observed relationship quality (Paley et al., 1999; Roisman et al., 2002). Thus, individuals who are earned secure are thought to be resilient in the face of childhood adversity. These resilient individuals may have positive experiences in their adult close relationships because they have experienced supportive intervening relationships since childhood, either in their subsequent relationships with friends, mentors, romantic partners, or therapists and mental health workers. It will be important for future research to build upon the current study by either controlling for such intervening relationships or modeling these intervening relationships to explore if they have a moderating effect. Collapsing spouses who have come to terms with childhood adversity into a group with spouses who have not come to terms with childhood adversity could obscure important family-of-origin influences on adult personal and relational well-being (Jacobvitz, Curran, & Moller, 2002).

There was a significant crossover effect in the prediction of husbands’ marital satisfaction at six months postpartum. Husbands whose wives recalled more paternal rejection were less satisfied in their marriages at six months postpartum than husbands

whose wives recalled less paternal rejection. Although wives' recollections of their childhood relationships appeared to have no effect on their own marital satisfaction, their recollections influenced their partners' satisfaction. Intervening experiences since childhood, specifically the process of becoming earned secure may have buffered some wives from the negative influence of remembered parental rejection in childhood on their own marital satisfaction. These intervening experiences, however, may not buffer the effect of wives' remembered paternal rejection on their husbands' marital satisfaction for a variety of reasons. Previous research has demonstrated that although spouses who are earned secure report more positive feelings about their marriages than spouses who are insecure, spouses who are earned secure are no different on measures of commitment and the degree to which they threaten to abandon their partner than are spouses who are continuously insecure (Crowell, Treboux, & Waters, 2002). Perhaps wives who are earned secure behave in ways that are particularly detrimental for husbands' marital satisfaction, possibly by expressing fears of abandonment or by threatening to abandon their spouses, which irritates and frustrates husbands resulting in lower marital satisfaction among those husbands. Wives in the current study who have come to terms with experiences of childhood rejection may interact with their partners similarly as wives in the current study who have not come to terms with childhood rejection, contributing to the significant crossover effect of wives' remembered paternal rejection on husbands' marital satisfaction at six months postpartum.

Wives who recalled more rejection from their fathers in childhood may have engaged in more negative interactions with their husbands and their husbands may have

become less satisfied in their marriages. Although marital aggression did not mediate the association between wives' remembered rejection and husbands' marital satisfaction as discussed below, it is probable that other behaviors engaged in by wives mediate that association given that crossover effects are thought to influence marital satisfaction through behavioral interactions (Thibaut & Kelley, 1959). Positive marital conflict resolution strategies may play an important role in the link between remembered rejection and change in satisfaction over time. Previous research has revealed that couples who engage in more positive observed marital communication strategies experience less declines in marital satisfaction across the transition to parenthood than couples who do not engage in as many of these strategies (Cox et al., 1999). Expressions of warmth during marital interactions are also positively associated with marital satisfaction throughout the lifespan (Gottman, 1979; Margolin & Wampold, 1981). Therefore, wives who recall more rejection from their parents in childhood may engage in fewer adaptive marital behaviors and display less warmth toward their husbands which in turn may undermine their husbands' marital satisfaction.

Observational assessments of marital aggression may provide additional insight into the process by which remembered rejection influences change in marital satisfaction over time. Given that self- and observational-ratings of aggression tend to correlate between .21 and .39 (Capaldi & Crosby, 1997), there is variation in observational versus participant reported marital behavior. Therefore, it is possible that observational assessments of marital aggression are more accurate indicators of marital behavior. Indeed, it is generally regarded that there is a social desirability bias in participants'

reports of marital aggression (Scott & Straus, 2007). It will be important for future work to utilize observational assessments of marital conflict to understand if observed conflict resolution strategies mediate associations between partner-remembered parental rejection and personal marital satisfaction in the prenatal period as well as change in personal marital satisfaction over time.

That there was a crossover effect of remembered paternal rejection from wives to husbands, but not from husbands to wives is consistent with previous research demonstrating that wives' recollections of their childhood family relationships predict husbands' marital satisfaction while husbands' recollections of childhood family relationships do not predict wives' marital satisfaction (Holman & Birch, 2001). This finding is consistent with the popular notion that women are more "relationship oriented" than are men. Indeed Holman and Birch argue that this effect occurs because women are the primary architects of the marital relationship (Wamboldt & Reiss, 1989). It appears that women construct not only their own experiences within the marriage, but also their husbands'.

That there was a significant crossover effect for the influence of wives' remembered rejection from fathers, but not mothers, in childhood was surprising. The difference between recollections of maternal versus paternal rejection was unexpected; however, this finding is consistent with evidence that fathers play a unique role in children's development (Lamb, 2003). Perhaps wives who recall more paternal rejection engage in more negative interactions with their husbands because they subconsciously project submerged anger towards to their fathers onto their spouses who are also male

(Bowlby, 1973; Rholes, Simpson, & Stevens, 1998). Alternatively, because fathers spend less time engaged in childcare than do women (Poortman & van der Lippe, 2009), wives' recollections of their childhood experiences with their fathers may be more salient in their memories than are common everyday interactions with mothers. Therefore, in their interactions with their marital partners, wives may unconsciously draw upon these salient memories childhood memories. As discussed below, husbands' remembered maternal rejection in conjunction with infant negative emotionality predicted husbands' own marital satisfaction at six months postpartum. Therefore, a cross-gender effect seemed to characterize links between remembered parental rejection and husbands' marital satisfaction, such that wives' remembered paternal rejection and husbands' remembered maternal rejection were significant predictors. It will be important for future research to examine the mechanisms accounting for these cross-gender effects to better understand the experiences of first-time parents.

#### *Moderation Effects*

There was a significant spillover effect of remembered parental rejection on marital satisfaction among husbands; however, this effect occurred in conjunction with infant negative emotionality. Among infants high on negative emotionality, there was a spillover effect of husbands' remembered parental rejection on husbands' marital satisfaction at six months postpartum. The post-hoc analyses revealed that this effect was primarily accounted for by husbands' remembered maternal rejection. Husbands whose infants were high on negative emotionality, and who recalled more rejection from their mothers in childhood experienced lower marital satisfaction. This finding is consistent

with the perspective that the attachment system is activated under times of stress (Mikulincer et al., 2000; Mikulincer et al., 2002), in this case when fathers are faced with a persistently fussy infant (Feeney et al., 2001; Mantymaa et al., 2006; Mulsow et al., 2002). Contrary to expectation, there was no moderated spillover effect in the prediction of wives' change in marital satisfaction over time. Women may have been more likely to come to terms with negative experiences in their family-of-origin than were men. Supporting this possibility, women are more likely to be classified as earned secure than are men while using retrospective methods to assess earned security (Roisman et al., 2002). Despite this, the significant moderated spillover effect in the prediction of the intercept for husbands demonstrates the importance of considering child characteristics and perhaps other contextual factors in the association between enduring vulnerabilities and marital satisfaction.

That there was a significant spillover effect of remembered rejection, in conjunction with infant negative emotionality, for husbands but not wives is inconsistent with previous research which has revealed that that early family experiences have a stronger influence on marital experiences among women than among men (Feldman, Gowen, & Fisher, 1998; Holman & Birch, 2001). These previous studies however were conducted with couples who were not undergoing the transition to parenthood. The unique stressors of the transition to parenthood, specifically when dealing with an infant high on negative emotionality, may have a greater effect on the activation of the attachment system among men than women. Because women undertake the majority of childcare tasks (Cowan & Cowan, 1988; Leerkes & Burney, 2007; MacDermid, Huston,

& McHale, 1990), and because infants high on negative emotionality may require more care and attention from their caregivers, husbands with a persistently fussy infant may feel particularly ignored and neglected by their wives (Belsky & Kelly, 1994; Cowan & Cowan, 2000). Husbands who recall more rejection from their mothers in childhood may be particularly likely to perceive their wives' focus on the infant as an expression of rejection towards them. Given the inconsistency with previous findings, more research is necessary to tease apart possible gender differences in the influence of remembered rejection on marital satisfaction throughout the lifespan.

Although remembered parental rejection did not predict change in wives' marital satisfaction in conjunction with infant negative emotionality, it is possible that other stressors besides infant negative emotionality will have an exacerbating effect. For example, stressors associated with maternal employment and returning to work following childbirth may activate the attachment system and in turn influence the degree to which remembered parental rejection is linked with change in marital satisfaction over time. Furthermore, it is possible that when spouses are faced with greater numbers of stressors they will experience greater activation of the attachment system and therefore will be subsequently influenced by remembered rejection. Indeed, cumulative risk scores are more predictive of relationship satisfaction than are individual risk factors, and cumulative risk has also been demonstrated to exacerbate associations between individual risk factors and relationship satisfaction (Rauer, Karney, Garvan, & Hou, 2008). Furthermore, experiencing multiple risk factors may make it less likely that an individual who recalls higher rejection from parents in childhood will become earned secure given

their limited availability to work with therapists and counselors. Finally, in the current study the perspective was taken that higher infant negative emotionality is linked with greater parenting stress, which would subsequently activate the attachment system (Feeney et al., 2001; Mäntymaa et al., 2006; Mulsow, Caldera, Pursley, Reifman, & Huston, 2002; Wilkie & Ames, 1986). However, different parents may find infant fussiness and irritability to be more or less stressful depending on their feelings of efficacy with regard to the parenting role and available sources of support (Crockenberg, 1986; Crockenberg & Leerkes, 2003b). Therefore, the direct assessment of parenting stress may serve as an important factor in the association between remembered parental rejection and change in marital satisfaction over time.

Although infant negative emotionality did not exacerbate the association between remembered rejection and change in wives' marital satisfaction over time, negative emotionality was negatively associated with wives' change in marital satisfaction as a direct effect in the post-hoc conditional growth curve models. That is, wives whose infants were highly reactive experienced sharper declines in marital satisfaction across the transition to parenthood than wives whose infants were less reactive. This finding is consistent with previous research demonstrating that infant negative emotionality is a risk factor for declines in marital love across the transition to parenthood (Belsky & Rovine, 1990). However, the current study builds upon the work of Belsky and Rovine by utilizing a multi-informant measure of infant negative emotionality composed of mother, father, and independent observer ratings of infant difficulty and fussiness rather than mother reports alone. Thus, the role of infant negative emotionality should not be

discounted based upon the fact that it did not exacerbate the association between remembered rejection and change in marital satisfaction in the current study. The developing infant clearly plays an important role in the marital relationship across the transition to parenthood.

Although infant negative emotionality was linked with change in marital satisfaction across the transition to parenthood as a main effect among wives, among husbands infant negative emotionality influenced marital satisfaction only in conjunction with remembered rejection from mothers in childhood. Perhaps a main effect of infant negative emotionality occurred among wives only because wives spend more time in childcare tasks than do husbands (Cowan & Cowan, 1988; Leerkes & Burney, 2007; MacDermid et al., 1990). Infant negative emotionality appeared to influence marital satisfaction among husbands only in the context of an additional risk factor, remembered parental rejection.

#### Indirect Effects of Remembered Parental Rejection

Because there were no spillover or crossover effects of remembered parental rejection on wives' change in marital satisfaction, it would have been inappropriate to examine marital aggression as a mediating mechanism. However, the indirect effect of remembered parental rejection on change in marital satisfaction through marital aggression was examined. Contrary to expectation, remembered parental rejection was not linked with marital aggression among husbands or wives independently or in conjunction with infant negative emotionality, therefore there was no indirect pathway. This finding is in contrast to previous research which has linked parental rejection in the

prenatal period to marital aggression in the postpartum among wives (Crockenberg & Leerkes, 2003a). Perhaps remembered rejection has an influence on marital aggression only in the context of additional risk factors which were not examined as moderators in the current study, such as lower education and family incomes levels, as previously discussed. Given that wives' aggression was negatively associated with husbands' marital satisfaction at six months postpartum, the assessment of these additional risk factors may reveal an important indirect crossover effect.

That wives' marital aggression was negatively associated with husbands' marital satisfaction at six months postpartum is consistent with previous research demonstrating that romantic behavior does crossover from one partner to the other to influence marital satisfaction (Henry, Berg, Smith, & Florsheim, 2007; Yelsma & Marrow, 2003). Husbands' marital aggression did not predict wives' satisfaction at six months postpartum or changes in wives' satisfaction over time. This pattern of results is in contrast to previous research demonstrating that associations between husbands' marital behavior and wives' satisfaction are stronger than associations between wives' marital behavior and husband's satisfaction; however, this previous research focused on spousal support rather than conflict resolution strategies (Acitelli & Antonucci, 1994). In the current study, husbands' appeared to be influenced more by their wives' behavior than were wives' influenced by their husbands. Perhaps because wives tend to have more positive expectations for the transition to parenthood than do husbands (Lawrence, Nylen, & Cobb, 2007), they made more positive attributions of their husbands' behavior

during postpartum marital conflict which subsequently buffered against declines in marital satisfaction.

### Conclusion

The present study examined the process by which remembered parental rejection influences change in marital satisfaction across the transition to parenthood. There was little support for the hypotheses that remembered parental rejection was linked with change in marital satisfaction over time as a spillover and crossover effect, in conjunction with infant negative emotionality, and through marital aggression. However, there was support for notion that remembered rejection was linked with husbands' marital satisfaction in the postpartum period independently and in conjunction with infant negative emotionality. Furthermore, infant negative emotionality was linked with declines in wives' marital satisfaction over time. Although the study was characterized by a variety of strengths including a longitudinal, dyadic research design, there were a number of important limitations which limit the generalizability of the findings and highlight the importance for future research in this area.

First, the sample size of married couples was small, limiting statistical power to detect associations between the variables of interest. Furthermore, there was a large amount of missing data, particularly for husbands. These limitations may have influenced the results of the study in a number of important ways. That there was not significant variability around husbands' change in marital satisfaction may have been the result of the large amount of missing data. Had all husbands in the current sample participated in all three waves of data collection, a significant variance statistic for husbands' slope may

have emerged. Furthermore, the small sample size may have been a contributing factor to the large number of null findings. It will be important for future research to re-examine the study hypotheses with a larger and more complete sample of marital partners.

Second, the current sample of marital partners was predominantly white and highly educated limiting the generalizability of the findings to more diverse populations. Given that educational attainment is positively associated with the use of mental health services (Steele et al., 2007), it is possible that the predominance of null findings in the current study is associated with the highly educated sample. Participants in the current study who experienced higher levels of parental rejection may have received therapy or sought mental health services and therefore links between remembered rejection and marital aggression and marital satisfaction were not as strong in the current sample as they may be in less educated samples. It will be important to re-examine the current hypotheses with a more diverse sample to ascertain if these null findings are replicated in a less educated sample which is less likely to utilize mental health services. Furthermore, the current sample of romantic partners were all married. It would be interesting to consider if family-of-origin experiences influence romantic partners similarly or differently based upon relationship status (married, cohabiting, or dating).

Third, the use of adult children's retrospective reports of parenting behavior is a considerable limitation. Although there is evidence for the validity of the measure used in the current study (Parker, 1981), retrospective reports of parenting behavior are often regarded as being biased by adult children's current emotional dispositions and states of mind regarding their childhood experiences (Brewin, Andrews, & Gotlib, 1993).

Controlling for depressive symptoms in the current study helped to address this limitation, but prospective longitudinal studies which follow individuals from childhood into adulthood and over the transition to parenthood would help to better tease apart linkages between family-of-origin experiences and change in marital satisfaction as individuals become parents.

Fourth, that marital aggression was assessed using self- and partner-reports of spouses' behavior rather than observational assessments is a concern. Although the use of self- and partner-reports of behavior is superior to the use of self-reports alone, it is possible that these assessments are influenced by social desirability (Scott & Straus, 2007). Therefore, observing marital behavior during a romantic interaction may be a more valid assessment of the use of aggressive strategies to resolve marital conflict.

Finally, that marital satisfaction was only measured at three time points limits the ability to examine variability in curvilinear patterns of change in marital satisfaction across the transition to parenthood. Previous research has revealed that there is a "honeymoon period" immediately following childbirth during which the excitement of the new baby overshadows stressors and strains in the marriage (Belsky, Spanier, & Rovine, 1983; Miller & Sollie, 1980). An additional assessment of marital satisfaction in the immediate weeks following childbirth would allow for the examination of this possibility.

Although there are a number of important limitations of the current study, the current study was characterized by many strengths as well. First, hypotheses were tested in a more stringent manner than much of the previous work in this area. For example, in

the examination change in marital satisfaction over time, and the examination of links between remembered rejection and marital satisfaction, a negative affective bias commonly associated with these variables is often not accounted for (e.g. Belsky & Isabella, 1985). The current study makes an important contribution to the marriage and transition to parenthood literature by attempting to account for this bias by controlling for prenatal depressive symptoms.

Second, the use of a longitudinal dataset is a strength. This allowed for not only the examination of change in marital satisfaction over time, but also for the examination of the hypothesized predictors in an appropriate time sequenced order. For example, prenatal rejection was examined as a predictor of marital aggression at six months which was subsequently examined as predictor of change in marital satisfaction over time. This is advantageous to examining associations between remembered rejection and marital aggression concurrently.

Third, the current study draws upon multiple informants to capture two of the variables of interest, namely marital aggression and infant negative emotionality. Tapping into marital aggression using both self- and partner-reports is a first step in dealing with a social desirability bias. Furthermore, that the composite of infant negative emotionality included an observational assessment of infant reactivity is a particular strength. In previous research examining infant negative emotionality as a predictor of change in marital satisfaction over time, only maternal reports of infant reactivity were utilized (e.g. Belsky & Rovine, 1990). That this composite of infant negative emotionality was a significant predictor of change in wives' marital satisfaction over time, and also

influenced husbands' marital satisfaction in conjunction with husbands' reports of remembered rejection, provides compelling evidence that infant characteristics influence spouses' experiences within the marriage, above and beyond their perceptions of child characteristics.

Finally the use of structural equation modeling is advantageous in the current study. This allowed for the examination of both husbands' and wives' change in marital satisfaction simultaneously while accounting for dependencies which were due to the nested nature of the data. Structural equation modeling also accounted for dependencies which were associated with the repeated measures. Finally, this analytic method accounted for measurement error which was due to unreliability of measurement.

Results of the current study fail to provide strong support for the notion that family-of-origin experiences have a lasting and relevant influence on experiences in adult close relationships (Bowlby, 1969). It is possible however that under a variety of conditions not examined in the current study, such as higher parenting stress and when couples are faced with a greater number stressors, remembered parental rejection will influence change in marital satisfaction. Therefore, it will be important for future research to examine the potential influence of parenting stress and cumulative stressors in the association between remembered rejection and change in personal and partner marital satisfaction across the transition to parenthood. Furthermore, remembered parental rejection may have a distal influence on change in marital satisfaction during this time. Although self- and partner-reports of marital aggression were not mediating mechanisms,

it is possible that observational assessments of marital behavior, and assessments of positive marital interaction, will tell a different story.

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