Expectant Fathers’ Attachment Orientation and Preparation for Parenthood

A Thesis

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Abstract

To further understand the mechanisms that influence fathers’ adjustment to parenthood, this study investigated connections between expectant fathers’ attachment orientation and variables tapping their preparation for parenthood. Specifically, new fathers’ attachment Avoidance and Anxiety were examined in relation to 1) their perceived investment in the parent role, 2) their parental self-efficacy, 3) their intuitive parenting behavior, 4) their feelings about the pregnancy news, and 5) their perceptions of pregnancy plannedness. Data were collected on 119 expectant fathers during the third trimester of pregnancy. Preliminary analyses revealed few significant correlations between expectant fathers’ attachment orientations and their preparation for parenthood. Two exceptions were that expectant fathers high in attachment Avoidance demonstrated significantly less enthusiasm for the pregnancy news, and expectant fathers high in attachment Anxiety felt significantly less confidence in their ability to relate to their infants during the third trimester of pregnancy. Further analyses used hierarchical regression equations to examine the observed contributions of fathers’ attachment orientation while controlling for the potential influence of couple relationship satisfaction and Neuroticism. After controlling for these confounds, expectant fathers’ attachment Avoidance and Anxiety explained no additional variance in any of the five indices of preparation for parenthood. These findings suggest that expectant fathers’ attachment orientation has no direct influence on their preparation for parenthood over and above their degree of relationship satisfaction and Neuroticism.
Dedication

I dedicate this thesis to Grandma Joan, whom has always been there to inspired confidence in fulfilling my dreams and ambitions. The strength and love she demonstrates for my family is immeasurable. Without her support, graduate school and this thesis would not have been possible.
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Expectant Fathers’ Attachment Orientation and Preparation for Parenthood

Despite the importance of father-child relationships (Pleck & Masciadrelli, 2004), the transition to fatherhood remains understudied (Salmela-Aro, Nurmi, Saisto, & Halmesmäki, 2000). Bowlby-Ainsworth attachment theory provides a conceptual foundation for understanding the intricacies of expectant fathers’ preparation for parenthood. Reformation of their relationships to include a newborn child is a stressful shift that may activate fathers’ pre-existing attachment-based perceptions and behaviors (Wilson, Rholes, Simpson, & Tran, 2007). Men vary greatly in how they experience this significant transition - secure men are likely to embrace the notion of their partner’s pregnancy and anticipate life with a newborn child, while insecure men may experience the preparation for fatherhood as a time of ambiguity.

Guided by attachment theory, the aim of the current study is to clarify the nature and direction of the relations between fathers’ attachment orientation and their preparation for parenthood within a sample of couples expecting their first child. Specifically, new fathers’ attachment Avoidance and Anxiety were examined in relation to 1) their perceived investment in the parent role, 2) their parental self-efficacy, 3) their intuitive parenting behavior, 4) their feelings about the pregnancy news, and 5) their perceptions of pregnancy plannedness. This study adds to previous literature by expanding our understanding of how attachment theory applies to the transition to fatherhood.

Background

Bowlby-Ainsworth Attachment Theory

Utilizing several disciplines to formulate the basic principles of attachment theory, John Bowlby published three major volumes on attachment, separation, and loss
(1969, 1973, 1980, respectively), that revolutionized our thinking about the importance of early relationships (Bretherton, 1992). Bowlby’s theory of attachment offers a conceptual foundation for understanding the intricacies of an infant’s affectional bond to his/her primary caregiver. Mary Ainsworth contributed significantly to Bowlby’s original ideas by developing an innovative methodology for empirically testing an infant’s attachment behavior (Bretherton, 1992). Key concepts of the Bowlby-Ainsworth attachment theory include but are not limited to proximity-maintenance, safe-haven, secure-base, and internal working models of self and others.

Mary Ainsworth developed the Strange Situation procedure to assess attachment quality. This procedure was designed to activate an infant’s attachment system through repeated separations from his/her caregiver in an unfamiliar environment, and his/her exploration system through the availability of attractive toys (Hazan & Shaver, 1994). Using the Strange Situation as her mode of investigation, Ainsworth identified three key concepts of attachment: 1) proximity-maintenance, or when infants seek proximity to and contact with their parent; 2) safe-haven, or the degree to which they accept and are comforted by such contact; and 3) secure-base, whether exploratory behavior is facilitated by the presence of an attachment figure. Infant behavior in the laboratory setting is assumed to reflect expectations (internal working models) based on the caregiver’s past responsiveness to the infant’s signals for contact and comfort (Hazan & Shaver, 1994).

According to Bowlby, children learn what to expect from relationships through repeated interactions with their primary caregiver (Hazan & Shaver, 1994). Children internalize experiences with their caregivers in such a way that early attachment relations come to form a prototype for later relationships outside the family (Bartholomew & Horowitz, 1991). These prototypes, also referred to as internal working models of self and others, determine “(a) whether or not the attachment figure is judged to be the sort of person who in general responds to calls for support and protection; [and] (b) whether or not the self is judged to be the sort of person towards whom anyone, and the attachment figure in particular, is likely to respond in a helpful way” (Bowlby, 1973, p. 238).
Ainsworth, Blehar, Waters, and Wall (1978) described three major patterns of attachment: 1) Infants who have a secure attachment orientation show distress when separated from their primary caregiver, comfort when the primary caregiver returns, and active exploration as long as the primary caregiver is present; 2) Infants who have an anxious/resistant attachment orientation appear to be anxious when separated from their primary caregiver, irritated when the primary caregiver returns, and too preoccupied with their caregiver’s presence to actively explore their surroundings; 3) infants who have an avoidant attachment orientation do not appear distressed when separated from their primary caregiver, avoid contact when the primary caregiver returns, and actively direct their attention toward the toys instead of the primary caregiver. Ainsworth’s attachment orientations provide strong evidence for the value of the secure-base concept in early attachment relationships.

According to attachment theory, working models of relationships are carried forward into adulthood. To test this hypothesis, the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985), which asks respondents to reflect on their childhood experiences with significant caregivers, was developed. Research using the AAI suggests that barring negative life events that change the availability and responsiveness of secure-base figures, early attachment orientations have shown stability into adulthood (Waters, Merrick, Treboux, Crowell, & Albersheim, 2000).

Adult Attachment

Notably, the attachment framework has been utilized in understanding the formation and maintenance of adult romantic relationships (Bartholomew & Horowitz, 1991; Brennan, Clark, & Shaver, 1998; Hazan & Shaver, 1987, 1994). This research tradition has sought to develop self-report measures that assess working models of attachment that may have relevance for adult functioning in a variety of relationship types (romantic, friendship, parent-child). Hazan and Shaver (1987) were the first to explore romantic love from the perspective of attachment theory. Specifically, they applied Ainsworth’s three-category typology of attachment to the study of romantic
relationships by developing a self-report procedure to classify adult attachment as either secure, avoidant, or anxious/ambivalent. They found securely attached adults experience happy, friendly, and trusting romantic relationships, characterized by acceptance and support of their partner. Highly avoidant adults have romantic relationships characterized by fear of intimacy, emotional highs and lows, and jealousy, with less-than-positive love experiences. Anxiously attached adults have romantic relationships characterized by obsession, desire for reciprocation, emotional highs and lows, and extreme sexual attraction and jealousy (Hazan & Shaver, 1987).

Hazan and Shaver’s measurement of adult attachment revealed several parallels between attachment in childhood and romantic attachment that are worth mentioning. For example, a similar distribution of attachment styles was found between their sample of adults (56% secure, 24% avoidant, 20% anxious) and previous research on infant attachment (62% secure, 23% avoidant, 15% anxious) as summarized by Campos, Barrett, Lamb, Goldsmith, and Sternberg (1983). The consistency of relationship representation from childhood to adulthood may result from internal working models formed early in development and carried into adult relationships (Hazan & Shaver, 1987).

Bartholomew and Horowitz (1991) expanded on Hazan and Shaver’s (1987) three-category typology by adding a fourth category – fearful-avoidance. This category allowed them to classify individuals who appear dismissing but are actually fearful of romantic relationships. Subsequently, Brennan et al. (1998) further improved on these early conceptualizations and corresponding measurement strategies by developing a common metric for assessing adult romantic attachment. They accomplished this by offering two scales that measure attachment on the dimensions of Avoidance and Anxiety. Individuals with an avoidant attachment feel uncomfortable in close relationships, have trouble expressing thoughts and feelings, and find themselves pulling away when their partner gets too close. Individuals who are anxiously attached seek closeness both physically and emotionally, worry about abandonment, and need reassurance they are loved. Avoidance and Anxiety underlie virtually all self-report adult
attachment measures and appear crucial for capturing important individual differences in adult romantic attachment (Brennan et al., 1998). Although largely influenced by previous research (including the work of Bartholomew & Horowitz, 1991 and Hazan & Shaver, 1987) the continuous dimensions of Avoidance and Anxiety developed by Brennan et al. (1998) allow for a more powerful and precise measurement of attachment than do categorical measures.

**Adult Attachment and Parenthood**

In addition to suggesting that internal working models of relationships are formed based on individuals’ early childhood experiences, attachment theory also demonstrates that adults’ working models affect how they parent their own children. In this way, attachment is transmitted across generations. A study done by van Ijzendoorn (1995) provides evidence to support the idea of intergenerational transmission of attachment. Two meta-analyses were conducted to examine the transmission of attachment orientation from parent to child. The studies included used the Adult Attachment Interview (George et al., 1985) to measure parents’ adult attachment orientations and the Ainsworth Strange Situation to measure children’s attachment to their parents. A number of the studies also measured parents’ responsiveness to their infants’ attachment signals. First, data from 18 pertinent samples yielding 854 parent-child dyads (14 studies included mothers, 4 studies included fathers) were used to investigate the relationship between parents’ representations of their own attachment experiences and the quality of attachment relationships with their children. Van Ijzendoorn (1995) found that the parent’s attachment matched the child’s, with secure (autonomous) parents more likely to have secure children and insecure parents more likely to have insecure children. Second, data from 10 samples consisting of 398 dyads (mostly mother-child) were used to examine the behavioral correlates of parents’ attachment representations. It was hypothesized that parents with secure (autonomous) attachment representations would be more responsive to their own infants. This hypothesis was confirmed with parental attachment accounting for 12% of the variation of parental responsiveness.
While relations between adults’ working models of their childhood relationships with caregivers (measured by the AAI) and their parenting behavior have been well studied (van Ijzendoorn, 1995), the examination of adult romantic attachment in relation to parenting is a new line of inquiry. Of the work that has been done, recent research suggests the attachment orientation of new parents may influence their overall adjustment to parenthood. Parenting quality has also been associated with adult attachment, demonstrating that parenthood is a major life stressor that may activate couples’ pre-existing attachment-based perceptions and behaviors.

In some of the earlier research on attachment patterns and parenthood, Rholes, Simpson, Blakely, Lanigan, and Allen (1997) asked 379 unmarried college students about their desire to have children and their beliefs and expectations about themselves as parents. Participants completed self-report measures assessing their (a) attachment styles, (b) desire to have children, (c) perceived ability to relate well to children, (d) parenting beliefs and expected parental behavior, and (e) expected satisfaction derived from the care of infants. Their results revealed participants’ adult romantic attachment orientation was systematically associated with working models of parenting and parent-child relationships well before marriage and the birth of children. Highly avoidant individuals endorsed comparatively strict and harsh disciplinary practices, have a predisposition to be easily aggravated by children, do not endorse the importance of warmth in parent-child relationships, and they do not view themselves as able to relate well with children. Moreover, individuals scoring high on attachment Avoidance expect to derive less satisfaction from parenthood and express lower levels of interest in having children (Rholes et al., 1997).

According to Rholes et al. (1997), highly ambivalent individuals demonstrated similar desires, beliefs, and expectations to their avoidant counterparts. Specifically, participants scoring high on attachment Anxiety expect to be aggravated easily, endorse strict/harsh discipline, do not endorse the importance of warmth in parent-child relationships, and generally feel they will not be well suited to relate to children.
However, ambivalence was not associated with the desire to have children. Highly ambivalent participants thus seem to have contradictory models of parenthood.

In subsequent extensions of this work, Rholes and his colleagues have examined the importance of attachment orientations for individuals who are actually anticipating parenthood. Rholes, Simpson, and Friedman (2006) investigated connections between attachment Avoidance and the experience of parenting after the birth of a couple’s first child. A sample of 106 married couples completed self-report measures of adult attachment, marital satisfaction, and depressive symptoms. During prenatal testing participants reported on their desire to become a parent, and during postnatal testing participants reported on parenting stress and the meaning and satisfaction they derived from parenting. Rholes et al. (2006) found the degree to which parenting is perceived as stressful 6 months after birth was related to parents’ prenatal attachment Avoidance. Specifically, higher prenatal levels of Avoidance were associated with greater postnatal stress. Moreover, avoidant individuals reported less desire to become a parent, which in turn predicted the extent to which they perceived parenting as meaningful and satisfying at 6 months postpartum. Additional results indicated that the ability of these predictor variables to forecast actors’ perceptions of stress and feelings of meaning/satisfaction is independent of marital satisfaction and depressive symptoms and that partner variables had little bearing on actors’ perceptions of stress or feelings of meaning/satisfaction (Rholes et al., 2006).

Wilson, Rholes, Simpson, and Tran (2007) added to the literature linking romantic attachment orientations and the transition to parenthood. One hundred and eighty-eight couples completed a set of self-report measures approximately 6 weeks prior to the birth of their first child that assessed participants’ attachment orientations toward romantic relationships, their prenatal desire to have children, their prenatal jealousy of the baby, marital satisfaction, and Neuroticism. Approximately 2 weeks after the birth of their first child, women reported how supportive they thought their partner had been during labor and delivery and how close they felt to their newborn. Men reported how supportive they thought they had been to their partner during labor and delivery and how
close they felt to their new baby. Wilson et al. (2007) found with regard to perceptions of support (a) women scoring high on attachment ambivalence perceived less support from their partners during labor and delivery, (b) men scoring high on attachment Avoidance perceived that they provided less support to their partners, and (c) men with ambivalently attached partners also perceived that they provided less support. These results were especially profound when women entered parenthood with a weaker desire to become a parent. Considering their perceptions of the newborn child, women scoring high on attachment Avoidance reported feeling less close to their babies than did less avoidant women. In addition, both women and men scoring high on attachment ambivalence felt greater jealousy towards their babies than did less anxious participants. All findings for perception of the infants remained significant when Neuroticism and marital dissatisfaction were controlled.

Taking the literature one step further to examine relations between romantic attachment and actual parenting behaviors, Edelstein et al. (2004) examined the associations between parents’ self-reported attachment styles and their parental responsiveness during a stressful event. Thirty-nine parent-child dyads (predominately mother-child) were observed while children received a vaccination. Children’s reaction to the vaccination was rated and parental responsiveness to their distress was assessed. The findings demonstrated that children of highly avoidant parents were more distressed during the vaccination than children of parents scoring low on attachment Avoidance. Moreover, highly avoidant parents were less responsive to their distressed child, whereas parents scoring low on attachment Avoidance showed more emotional support. Relations of romantic attachment to parenting behavior and children’s distress were found independent of both parental personality and children’s temperament. Notably, no relations were found between parental attachment Anxiety and children’s distress or parental responsiveness (Edelstein et al., 2004).

However, other studies that have focused on attachment style and parenting behavior have found Anxiety or ambivalence to be more important than Avoidance. Green, Furrer, and McAllister (2007) investigated the associations between attachment
style, social support, and the parenting behaviors of 152 low-income parents, the majority of whom were mothers. Results suggest that more ambivalent mothers became less engaged in developmentally appropriate activities with their children over time. In contrast, mothers’ attachment Avoidance was not related to their parenting behavior (Green et al., 2007).

Why Fathers?

Changes over time in the ideals of fatherhood have progressively endorsed a more active co-parenting role for fathers. This view represents an important departure from the past when gender differences in labor and breadwinning responsibilities fostered more distant fathering behaviors (Pleck & Pleck, 1997). However, despite expectations of the modern father to be a more actively involved parent, relatively little research has focused on men’s transition to parenthood (Salmela-Aro et al., 2000). The majority of research has focused primarily on factors that influence mothers’ adjustment to parenthood. The same can be said for research investigating expectant fathers’ attachment orientation. The transition to fatherhood is a crucial period when heightened expectations of father involvement may be associated with amplified strain among expectant fathers, which in turn may elicit attachment-based perceptions and behaviors. Further investigation of the transition to parenthood and its relation to attachment orientations among expectant fathers is warranted.

Transition to Parenthood

Individuals undergoing the transition to parenthood experience major life changes. The addition of a new family member and the subsequent emergence of new family relationships force parents to adopt new roles, redefine old ones, and face new challenges and questions never before considered (Palkovitz & Copes, 1988). Reorganization of inadequate family patterns over the transition to parenthood is considered problematic by many couples, causing a state of crisis (LeMasters, 1957) that is associated with dissatisfaction in romantic relationships (Belsky & Pensky, 1988). For example, in a meta-analysis of 97 studies Twenge, Campbell, and Foster (2003) found
parents report lower marital satisfaction than nonparents and that this difference was largest when comparing parents of infants (versus older children) to nonparents. Given that the period surrounding the birth of a couple’s first child is stressful for relationships, the attachment system should be activated and attachment needs and motives elicited (Wilson et al., 2007). Thus, it is surprising that relatively little prior research has explored relations between adult romantic attachment and parenting experiences.

Research Objectives

Guided by attachment theory, the current study examined fathers’ preparation for parenthood in relation to their adult attachment orientation. Specifically, expectant fathers’ attachment Avoidance and Anxiety were examined in relation to 1) their perceived investment in the parent role, 2) their parental self-efficacy, 3) their intuitive parenting behavior, 4) their feelings about the pregnancy news, and 5) their perceptions of pregnancy plannedness.

It was hypothesized that expectant fathers’ attachment Avoidance would be negatively related to: 1) their perceived investment in the parent role, 2) their intuitive parenting behavior, 3) their feelings about the pregnancy news, and 4) their perceptions of pregnancy plannedness. That is, fathers scoring high on attachment Avoidance would perceive less investment in the parent role, demonstrate fewer intuitive parenting behaviors, have more negative feelings about the pregnancy, and perceive the pregnancy as less planned. Thus, it was expected in general, that highly avoidant fathers would demonstrate less preparation for parenthood. This expectation was consistent with research suggesting that avoidant individuals display less restrictive sexual behaviors (Gentzler & Kerns, 2004), are less enthusiastic about becoming parents (Rholes et al., 1997, 2006), experience parenting as more stressful (Rholes et al., 1997, 2006) and show poorer parenting behaviors (Edelstein et al., 2004; & Rholes et al., 2006). In regards to parental self-efficacy, its relation to fathers’ attachment Avoidance was undetermined. Rholes et al. (1997) suggest that highly avoidant individuals do not view themselves as able to relate with children, while research by Mikulincer, Dolev, and Shaver (2004)
demonstrate that highly avoidant individuals may activate positive self-representations engendering inflated reports of competence in an effort to suppress feelings of inadequacy. See Figure 1 for expected associations.

Figure 1: Fathers’ Preparation for Parenthood

Hypotheses regarding relations between fathers’ attachment Anxiety and preparation for parenthood were more tentative, given mixed previous findings suggesting that anxious individuals may have contradictory models of parenthood. It was hypothesized that expectant fathers’ attachment Anxiety would be negatively related to: 1) their parental self-efficacy, 2) their intuitive parenting behavior, and 3) their perceptions of pregnancy plannedness. That is, fathers scoring high on attachment Anxiety would perceive lower competence on child care tasks and demonstrate fewer intuitive parenting behaviors. Consistent with this expectation, Rholes et al. (1997) found that anxiously attached college students did not feel they were well suited to relate to
children and did not endorse the importance of warmth in parent-child relationships. In support, findings by Green et al. (2007) demonstrated that highly anxious mothers were less likely to engage in developmentally appropriate activities with their children. Furthermore, the present study predicted fathers scoring high on attachment Anxiety, like those men scoring high on Avoidance, would perceive the pregnancy as less planned. Again, this prediction stems from research suggesting that anxious individuals attempt to maintain relationships by partaking in less responsible intercourse (Gentzler & Kerns, 2004). Relations between the remaining variables and fathers’ attachment Anxiety remained largely exploratory. See Figure 1 for expected associations.

All hypotheses were tested controlling for couple relationship satisfaction and Neuroticism. Previous research has shown that relationship dissatisfaction is significantly correlated with fathers’ attachment Anxiety, and Neuroticism is significantly correlated with both fathers’ attachment Avoidance and Anxiety (Wilson et al., 2007).

Methods

Participants

Participants were 119 expectant fathers between the ages of 19 and 49 years ($M = 31$ years; $SD = 4.41$). The majority of the sample was European American (85.7%), with the remaining participants coming from other racial or ethnic backgrounds (African Americans = 4.5%, Asian Americans = 3.6%, Pacific Islander = .9%, Other = 4.5%, Mixed = .9%). Eighty-eight percent of the sample was married with all expectant fathers living with their partner all or most of the time. Participants in this study worked considerably diverse hours (range = less than 10 hours per week - over 50 hour per week) with the majority (83%) working full time (31-40 or 41-50 hours per week), and having an annual household income from $5000 to $250000 ($Mdn = $80000). Their education also ranged greatly from a high school degree to a doctoral degree, with most fathers having obtained at least a college degree (67%).
Procedures

Data were derived from the first phase of a short-term longitudinal study of new fathers’ and mothers’ adjustment to parenthood (the “New Parents Project”) conducted in a major city and surrounding area in the Midwest region of the United States. Couples were recruited from childbirth education classes, print advertisements, and word-of-mouth. At Phase 1 of the study, couples participated in a 1-hour home-based assessment during the third trimester of pregnancy. Prior to the home visit, both expectant parents completed a series of questionnaires. Depending on the preference of participants, questionnaires were either mailed to the couples’ home or access to an online version of the survey was provided to them. Questionnaires were mailed in separate envelopes and participants were asked to complete their questionnaires independently and seal them in another envelope when finished. Participants who elected to take their questionnaires online were provided separate usernames and passwords. In their homes, expectant parents participated in individual interviews and videotaped interaction tasks.

Measures

Adult Attachment. Expectant fathers’ attachment orientation was measured using the 36-item Experiences in Close Relationships questionnaire (ECR; Brennan et al, 1998). The ECR is a valid and reliable measure of two attachment subscales: Avoidance (i.e., discomfort with closeness and depending on others: “I get uncomfortable when a romantic partner wants to be very close”; 18 items) and Anxiety (i.e., fear of rejection and/or abandonment: “I worry a lot about my relationships”; 18 items). Expectant fathers self-reported the degree to which these 36 statements about close relationships resembled their personal experiences using a 7-point scale (1 = disagree strongly; 7 = agree strongly). In the present study, Cronbach’s alpha for Avoidance was .85 and for Anxiety .88.

Preparation for parenthood. Expectant fathers’ preparation for parenthood was measured using five variables: (1) perceived investment in the parent role, (2) parental
self-efficacy, (3) intuitive parenting behaviors, (4) feelings about the pregnancy, and (5) their perceptions of pregnancy plannedness.

Perceived investment in the parent role was measured using the Role Investments Penny-Sort Task (McBride & Rane, 1997), which requires participants to report on how they and their partner divide their role commitments currently, and how they and their partner plan to divide their role commitments after their infant’s birth. Participants were asked to divide 15 pennies among cards reflecting commitments to five adult roles: parent, spouse, worker, social, and other. The focus of the current study was on expectant fathers’ self-reported commitments to the parent role. In the third trimester of pregnancy, expectant fathers reported how invested they were in the parent role currently and how invested they planned to be after their infant’s birth. To create a global measure of paternal investment in the parent role, the number of pennies fathers allocated to the parent role currently (3rd trimester) and in the future (after baby’s birth) were summed together.

Expectant fathers’ parental self-efficacy was measured using the Parenting Self-Efficacy Expectations scale, adapted from the original measure developed and shown to be internally consistent (α = .86) by Teti and Gelfand (1991). The original scale is a self-report measure of the degree to which parents feel capable of completing 10 childcare related tasks (e.g., “when your baby is upset, fussy, or crying, how good will you be at soothing him/her?”) rated on a 4-point scale (1 = not good at all; 4 = very good). For the current study, the items were re-worded such that expectant fathers were asked to predict how confident they would be in the future in handling these various parenting situations. Due to a low response rate on some of the questions (i.e., “don’t know” responses), a subset of 6 items (α = .82) was utilized in the current study.

Expectant fathers’ intuitive parenting behaviors were identified and coded from in-home observations of the Prenatal Lausanne Trilogue Play, modeled on the original Lausanne Trilogue Play (LTP) created by Fivaz-Depeursinge and Corboz-Warnery (1999). The LTP is a semi-structured procedure in which parents are seated across from
their infant and asked to play together in four stages: (1) one parent plays with the child while the other parent is simply present, (2) the second parent plays with the child while the first parent is simply present, (3) both parents play together with their infant, and (4) both parents interact with each other while the infant has the third-party role. The prenatal LTP procedure, developed by Favez, Frascarolo, and Fivaz-Depeursinge (2006), is identical, except that expectant parents interact with a doll with a baby's body but an undefined face. Couples are asked to imagine that it's the first time the three of them are playing together, and are given specific instructions: “We now need you to imagine the moment when the three of you meet for the first time after the delivery. Please play this out in four parts: first, one of you plays with the ‘baby’ alone, and then the other one. Then, please play together with the ‘baby,’ and finally, let him/her ‘go to sleep’ and talk together about the experience you just went through. You can decide who plays with the ‘baby’ first on your own. We will leave the room. Please signal when you are finished.”

A team of two trained research assistants coded parenting behaviors identified in the literature as intuitive: holding or facing the baby, dialogue distance, baby-talk and/or smiling at the baby, caressing and/or rocking, exploring the baby’s body, and preoccupation with the baby’s well-being. Each parent was scored separately on a 5-point scale (5 = high intuitive parenting behaviors, 1 = low intuitive parenting behaviors) based on the frequency, number, and quality of behaviors exhibited. The coders’ scores for fathers’ intuitive parenting show interrater reliability (gamma = .76; ICC = .67) based on the 50% of the episodes that they both coded.

The remaining measures were taken from the demographic questionnaire. Expectant fathers’ feelings about the pregnancy news (i.e., “Circle the number that best indicates how you felt when you found out you were pregnant”) were measured on a 10-point scale (1 = very unhappy to be pregnant; 10 = very happy to be pregnant). Expectant fathers’ perceptions of pregnancy plannedness (i.e., “Circle the degree to which this baby was planned or unplanned”) were measured on a 7-point scale (1 = not at all planned; 4 = neither; 7 = definitely planned). Both questions were taken from national surveys.
Control variables. The two key control variables in this study were couple relationship satisfaction and Neuroticism. The brief 4-item version of the Dyadic Adjustment Scale (DAS; Sabourin, Valois, & Lussier, 2005) was used to assess couple relationship satisfaction. The brief DAS measures overall satisfaction in a relationship by asking respondents to rate how often (1 = never; 6 = all of the time) three situations arise within their relationship (e.g., “how often do you discuss or have you considered divorce, separation, or terminating your relationship?”) as well as to report their current happiness in the relationship (0 = extremely unhappy; 6 = perfect). This brief version of the DAS has shown predictive validity and is less affected by socially desirable responding. In the current study, $\alpha = .62$. Items were reverse-scored as necessary, and then standardized and averaged to create an overall score for relationship satisfaction.

The measure of expectant fathers' Neuroticism was drawn from the 60-item NEO – Five Factor Inventory (Costa & McCrae, 1992), which is a valid and reliable measure of the "Big 5" dimensions of personality (i.e., neuroticism, extroversion, openness, agreeableness, and conscientiousness; average scale $\alpha = .78$). Respondents rate 60 statements about themselves on a scale from 1 = strongly disagree to 5 = strongly agree. In the present study, the 12 items tapping the dimension of Neuroticism (e.g., “I often feel tense and jittery”) showed internal consistency ($\alpha = .85$). These items were reverse-scored as needed and averaged to create a total Neuroticism score.

Statistical Analysis

First, descriptive statistics were computed to examine the distributions of variables and insure that relevant assumptions were met. Second, correlations were computed to examine the basic associations of fathers’ Avoidance and Anxiety with variables tapping their preparation for parenthood. Finally, hypotheses were further tested using multiple linear regression analyses, which examined the contributions of fathers’ attachment orientation to their preparation for parenthood while controlling for the potential influence of Neuroticism and couple relationship satisfaction.
Results

Preliminary Analyses

Means, standard deviations, and ranges for all study variables are presented in Table 1. Expectant fathers reported relatively low levels of both attachment Avoidance and Anxiety. Their perceived investment in the parent role ranged greatly but remained below the highest possible score. Reports of parental self-efficacy suggested expectant fathers in this sample are highly confident in their ability to meet their infant’s needs. In addition, expectant fathers demonstrated a full range of intuitive parenting behaviors as scored from their videotaped interactions with a doll, with the average expectant father displaying a moderate number and repertoire of parenting behaviors. Lastly, expectant fathers’ feelings about the pregnancy news and their perceptions of pregnancy plannedness were high; that is, expectant fathers in this sample were happy to hear about the pregnancy and perceived the pregnancy as more planned. These findings are sensible given the well-functioning, homogenous nature of this community sample of expectant parents.

Pearson Correlations were computed among all study variables (see Table 2). The significant correlation between attachment Avoidance and Anxiety ($r = .40, p < .01$) demonstrates a moderate association among the independent variables. In regards to the relationships that exist among the dependent variables, some noteworthy associations exist. First, the correlation between expectant fathers’ feelings about the pregnancy news and their perceptions of pregnancy plannedness revealed a strong positive correlation ($r = .58, p < .01$). The more expectant fathers perceived the pregnancy as being planned the happier they were to hear the pregnancy news. Second, expectant fathers’ perceptions of pregnancy plannedness is also significantly though modestly correlated, in the opposite direction, with their perceived investment in the parent role ($r = -.21, p < .05$). The more planned expectant fathers perceived the pregnancy, the less invested in the parent role they were. The unexpected direction of this relationship challenges conventional wisdom. Lastly, expectant fathers’ perceived investment in the parent role and parental self-
efficacy reveal a significant modest positive correlation \( r = .24, p < .05 \). The more invested in the parent role expectant fathers were the higher parental self-efficacy they reported. The remaining dependent variables demonstrate no significant relationships to one another.

Of relevance to the major hypotheses of this study, expectant fathers’ attachment Avoidance showed a significant negative correlation with their feelings about the pregnancy news \( r = -.20, p < .05 \) suggesting that expectant fathers high in attachment Avoidance are less enthused when they hear about the pregnancy. No significant associations were found between expectant fathers’ attachment Avoidance and the remaining dependent variables. Expectant fathers’ attachment Anxiety showed a significant negative correlation with parental self-efficacy \( r = -.22, p < .05 \) suggesting expectant fathers high in attachment Anxiety report less confidence in their ability to relate to infants. No significant associations were found between expectant fathers’ attachment Anxiety and the remaining dependent variables. Although modest by Cohen’s (1988) standards, the findings are consistent with the hypothesized direction of association.

Guided by the results of previous work (Wilson et al., 2007) both couple relationship satisfaction and Neuroticism served as control variables in the current study. Concerning the correlations between the independent and control variables, attachment Avoidance was significantly correlated \( p < .05 \) with both couple relationship satisfaction \( r = -.49 \) and Neuroticism \( r = .26 \), while attachment Anxiety was significantly correlated \( p < .01 \) with Neuroticism \( r = .50 \). That is, expectant fathers high in attachment Avoidance showed lower levels of relationship satisfaction and expectant fathers high in attachment Avoidance or Anxiety tended to be high on Neuroticism. When examining the associations between the dependent and control variables a few significant correlations were found. Couple relationship satisfaction revealed significant positive correlations \( p < .01 \) with both parental self-efficacy \( r = .25 \) and feelings about the pregnancy news \( r = .28 \). These findings suggest when expectant fathers are more satisfied in their relationship they report more confidence in
relating to infants and more enthusiasm about the pregnancy news. In addition, Neuroticism and parental self-efficacy showed a significant negative correlation ($r = -.21$, $p < .05$) suggesting expectant fathers high in Neuroticism report less confidence in relating with/meeting the needs of their newborn. Based on these associations, a regression analysis was performed to control for any potential influence couple relationship satisfaction and Neuroticism have on the aforementioned correlations found between the independent and dependent variables.

**Regression Analyses**

A series of hierarchical regression equations were computed, each predicting one of five measure of fathers’ preparation for parenthood (perceived investment in the parent role, parental self-efficacy, intuitive parenting behavior, feelings about the pregnancy news, and their perceptions of pregnancy plannedness; see Table 3). In each equation, the set of control variables (couple relationship satisfaction and Neuroticism) was entered on Step 1 and expectant fathers’ attachment Avoidance and Anxiety were entered on Step 2. Entering the independent variables at Step 2 tested whether these variables explained variance over and above that explained by the control variables.

For the equation predicting expectant fathers’ parental self-efficacy, couple relationship satisfaction and Neuroticism were significant predictors ($p < .05$) on Step 1, such that expectant fathers high in relationship satisfaction ($\beta = .24$) and low on Neuroticism ($\beta = -.20$) demonstrated greater perceived confidence in their ability to relate to their newborn. Overall, the control variables explained 10% of the variance in expectant fathers’ parental self-efficacy. For the equation predicting expectant fathers’ feelings about the pregnancy news, couple relationship satisfaction was a significant predictor ($p < .01$) on Step 1, suggesting that expectant fathers who are happy to hear the pregnancy news are more satisfied with their relationship ($\beta = .27$). Expectant fathers’ level of Neuroticism was not a significant predictor of their feelings about the pregnancy news. In regards to the remaining equations, couple relationship satisfaction and Neuroticism explained no variance in perceived investment in the parent role, intuitive
parenting behaviors, or their perceptions of pregnancy plannedness. Furthermore, after controlling for couple relationship satisfaction and Neuroticism in Step 1, expectant fathers’ attachment Avoidance and Anxiety explained no additional variance in any of the five indices of preparation for parenthood (Step 2). These results imply that expectant fathers’ attachment orientation had no direct influence on their preparation for parenthood over and above their degree of relationship satisfaction and Neuroticism.

Discussion

Men vary greatly in how they experience the transition to fatherhood. The purpose of the present research was to understand how fathers expecting their first child prepare for this stressful shift. Bowlby-Ainsworth attachment theory provided a conceptual foundation for investigating how expectant fathers’ attachment orientations influence their preparation for parenthood. Specifically, this study examined new fathers’ attachment Avoidance and Anxiety in relation to 1) their perceived investment in the parent role, 2) their parental self-efficacy, 3) their intuitive parenting behavior, 4) their feelings about the pregnancy news, and 5) their perceptions of pregnancy plannedness. The principal findings of this research increase awareness of how attachment theory applies to the transition to fatherhood.

Unfortunately, correlations between expectant fathers’ attachment orientation and their preparation for parenthood revealed few significant associations. However, expectant fathers high in attachment Avoidance demonstrated significantly less enthusiasm for the pregnancy news, and expectant fathers high in attachment Anxiety felt significantly less confidence in their ability to relate to their infants. These findings were consistent with hypotheses and previous literature that found avoidant individuals are less enthusiastic about becoming parents (Rholes et al., 1997, 2006), and anxiously attached individuals do not feel they are well suited to relate to children (Rholes et al., 1997). Preliminary analyses revealed no additional associations between expectant fathers’ attachment Avoidance and Anxiety and the remaining indices of preparation for parenthood.
Significant associations found in the preliminary analyses were further tested using hierarchical regression equations to examine the observed contributions of fathers’ attachment orientation while controlling for the potential influence of couple relationship satisfaction and Neuroticism. After controlling for these confounds (Wilson et al., 2007), expectant fathers’ attachment Avoidance and Anxiety explained no additional variance in any of the five indices of preparation for parenthood. Most notably, the significant associations found between expectant fathers’ attachment Avoidance and their feelings about the pregnancy and expectant fathers’ attachment Anxiety and their parental self-efficacy no longer demonstrated significance after accounting for the variance explained by the control variables. These findings suggest that expectant fathers’ attachment orientation has no direct influence on their preparation for parenthood over and above their degree of relationship satisfaction and Neuroticism.

Strengths and Limitations

Characteristics of this particular sample present both strengths and limitations. The most important strength was the present study’s examination of expectant fathers. Understanding how men prepare for the transition to fatherhood supplements countless literature that primarily focuses on mothers’ adjustment to parenthood. In addition, hypotheses regarding preparation for parenthood were tested on men currently undergoing the transition to fatherhood. This is an important departure from research that has focused on prospective reports from college samples regarding their beliefs and expectations about parenting (Rholes et al., 1997) or retrospective accounts from parents regarding their prenatal preparation behaviors (Wilson et al., 2007).

However, it is important to also acknowledge some limitations with respect to the characteristics of the current sample. To qualify for the present study, expectant fathers had to be married or living with their partner at the time of participation. This type of relational commitment naturally engenders a sample higher in attachment security. Likewise, data were gathered from individuals willing to participate in this kind of study. This type of commitment may prove difficult for expectant fathers high in attachment
Avoidance or Anxiety. Thus, a lack of variation in adult romantic attachment exists in the current study that may not exist in research examining samples that demonstrate fewer commitments (i.e., college students).

Furthermore, the relatively modest sample size yielded lower statistical power making significant differences harder to detect. Plans are to reanalyze the full sample when data become available. Additionally, expectant fathers were predominantly white (81%), highly educated (67% with a college degree or higher), and had a median annual household income of $80000. Future research efforts should analyze larger, more diverse samples in terms of relationship status, ethnicity, and socioeconomic background.

In addition to characteristics of the sample, the measures utilized also have their strengths and limitations. The ECR provided power and precision in assessing expectant fathers’ attachment orientation by utilizing dimensions (continuous scales of attachment Avoidance and Anxiety) instead of attachment categorizations (Brennan et al., 1998). Also, minimal research has investigated expectant fathers’ parental self-efficacy, making the present study one of the first to do so. Moreover, hypotheses were subjected to stringent tests that involved controlling for couple relationship satisfaction and Neuroticism. By doing so, the sources of variance in the dependent measures were better explained.

In addition, the inclusion of an observational measurement of intuitive parenting is a notable strength, allowing coders to independently rate how natural expectant fathers behave when asked to parent. Observing actual behaviors provided a more precise measurement of parenting capabilities that may be misrepresented in self-reports. Recall that avoidant individuals have a tendency to report positive self-representations when other measures indentify their inadequacies (Mikulincer et al., 2004). However the use of the prenatal LTP task can also be considered a limitation. Intuitive parenting was measured through coded interactions of expectant fathers playing with a doll. The nature of this prenatal task may not activate attachment orientations to the same extent as interactions with their newborn child. Future research should include measures of fathers’
actual parenting behaviors with their newborns. Data of this nature will be available and examined upon completion of the postpartum phases of this study.

Conclusion

Within the context of the family system, the role of fathers is often understudied. Clearly, more work on the transition to fatherhood is crucial in order for the field of family science to move forward; specifically, attachment issues across the transition to parenthood need to be studied in more depth. By continuing to study this topic, we may gain a better understanding of why some fathers are more prepared than others to make the transition to fatherhood, which could lead to practical implications for helping families during this stressful life transition.
References


Appendix A: Correlation and Regression Analyses
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<th>Descriptives</th>
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Table 1. Descriptive Statistics for Expectant Father Attachment, Preparation, and Control Variables. \(n = 119\)
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*p < .05  **p < .01.

Table 2. Intercorrelations for Expectant Father Attachment, Preparation, and Control Variables.  \( (n = 119) \)
Table 3. Hierarchical Regressions Predicting Expectant Fathers’ Preparation for Parenthood from Adult Attachment (n = 119)

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*p < .05  **p < .01.
CRS = Couple Relationship Satisfaction