Adult Attachment Styles: Relations with Emotional Well-Being, Marriage, and Parenting*

Brenda L. Volling, Paul C. Notaro, and Joelle J. Larsen**

The current study examined the pairings of adult attachment styles among married couples raising young children. Spouses in dual-secure marriages reported more love for their partner, less ambivalence about their relationships, were more integrated into their social networks, and felt more competent as parents than couples in dual-insecure marriages. Differences in relationship dynamics were found in secure husband-avoidant wife and secure wife-avoidant husband marriages. There was no relation between adult attachment styles, parenting behavior, and the security of infant-parent attachments. Future work would benefit by focusing on the dyadic constellations of adult attachment styles and their implications for family relationships.

John Bowlby once proclaimed that attachment relationships were important for humans across the life cycle and that attachment behaviors characterized human interaction "from the cradle to the grave" (Bowlby, 1979, p. 129). Early attachment research focused primarily on the development of infant-mother attachments, but attachment theory has recently come to the attention of investigators studying adult love relationships (see Feeney & Noller, 1996, for a review). Hazan & Shaver (1987) originally theorized that adult romantic love could be viewed as an affective bond comparable to that seen between infants and their primary caregivers. In their view, adult love relationships could be categorized along the tripartite system developed by Ainsworth and her colleagues (Ainsworth, Blehar, Waters, & Wall, 1978) to describe individual differences in infant-parent attachments. Hazan & Shaver (1987) not only developed a measure to classify adults into secure, avoidant, and anxious/ambivalent groups, but they also documented differences between avoidant, secure, and ambivalent respondents' love relationships, their beliefs (i.e., mental models) about self and others in these relationships, and recollections of their family relationships in childhood.

Hazan and Shaver (1987) reported that secure adults described their love relationships as happy, friendly, and trusting, emphasized their ability to support and accept their partner despite their faults, and had relationships that tended to last longer than either avoidant or ambivalent respondents. The romantic relationships of avoidant respondents were characterized by a fear of intimacy and a discomfort with closeness, whereas the anxious-ambivalent respondents emphasized love as involving obsession, extreme sexual attraction and jealousy. Since the original findings of Hazan & Shaver (1987), numerous studies have continued to find strong empirical support for differences in relationship satisfaction, psychological well-being (e.g., self-esteem, depression) and childhood experiences as a function of secure, avoidant, and ambivalent attachment styles in adulthood (Bartholomew & Horowitz, 1991; Carnelley, Pietromonoaco, & Jaffe, 1994; Collins & Read, 1990; Feeney & Noller, 1990; Mikulincer & Erev, 1991; Pistole, 1989; Simpson, 1990). The current work contributes to the existing literature by examining similar constructs (e.g., models of self and others, relationship quality) in a sample of married spouses.

Attachment and Marriage

Many of the earlier studies of adult attachment styles used samples of college students to examine the relations between attachment and relationship quality. This restricts the generalization of the findings to the young adult period of development and the romantic or dating relationships typical of this population. Further work is needed that explains how adult attachment styles might be linked to relationship adjustment in more seriously committed or long-term love relationships, such as those between married couples. Prior research with dating and married couples has documented that individuals do not always choose partners with similar attachment styles. Although secure individuals were most often paired with secure partners, ambivalent persons rarely paired with ambivalent partners and avoidant individuals rarely paired with avoidant partners (Kirkpatrick & Davis, 1994; Senchak & Leonard, 1992). Those relationships, in which the woman was ambivalent and the man avoidant, were relatively frequent and rather enduring, even though partners reported less than satisfying relationship experiences (Collins & Read, 1990; Kirkpatrick & Davis, 1994; Simpson, 1990). Several attachment researchers have suggested that these ambivalent-avoidant pairs develop as a result of a social selection process whereby individuals choose partners who will act in ways that confirm their own expectations (i.e., working models) about relationships (Bartholomew, 1990; Kirkpatrick & Davis, 1994). For instance, an ambivalent person faced with an avoidant partner who fears intimacy and closeness receives confirmation of his/her working model of relationships in which others are reluctant to get close and unwilling to commit to a relationship. The first goal of the current study was to examine dyadic pairings of spouses with respect to their attachment styles. We anticipated that there would be more secure-secure dyads in our sample of married couples and fewer insecure-insecure dyads. Furthermore, we expected that insecure dyads would most often include avoidant husbands married to anxious-ambivalent wives, given the prevalence of this constellation in earlier work (e.g., Kirkpatrick & Davis, 1994).

The second aim of the current work was to examine marital relationship quality, emotional well-being and working models of self and others as correlates of different attachment pairings. Although several studies have documented associations between the *individual's* attachment style, emotional well-being and supportive relationships with others (e.g., Bartholomew & Horowitz,

*This research was supported by the Horace H. Rackham School of Graduate Studies and the Office of the Vice President for Research at the University of Michigan. Portions of this research were presented at the biennial meetings of the International Society for the Study of Behavioral Development, Quebec, Canada, August 1996.

**Address correspondence to: Brenda L. Volling, University of Michigan, Department of Psychology, 525 E. University, Ann Arbor, MI 48109-1109. E-mail: volling@umich.edu.

Key Words: adult attachment, depression, marriage, parenting.

(*Family Relations*, 1998, 47, 355-367)

1991; Carnelley et al., 1994; Paterson, Pryor, & Field, 1995; Priel & Shamai, 1995; Simpson, 1990), few studies have examined how emotional well-being and the individual's mental models of self and others are related to attachment *pairings* between marital partners. In a recent study of dating couples, Feeney (1994) reported that dual-secure couples reported less suppression of their negative feelings than dual-insecure couples and were less likely to perceive their partners as suppressing their negative emotions. Mixed couples (i.e., one secure and one insecure partner) were between the dual-secure and dual-insecure couples with respect to their suppression of negative affect. In the current study, we hypothesized that spouses in marriages with two secure partners would report high levels of self-esteem (i.e., mental models of self as worthy), low levels of depressed affect, and hold models of relationships in which others were supportive, nurturant and offered assistance when needed. Anxious and avoidant spouses married to another insecure spouse were hypothesized to have lower self-esteem, higher levels of depressed affect, and have models of less supportive relationships with others.

Several studies have also found support for differences in marital relationship quality based on the couples' attachment styles. Kobak and Hazan (1991), for instance, found significant associations between attachment security and both the husbands' and wives' marital satisfaction. Secure husbands and wives also engaged in more constructive problem-solving during observations of marital interaction than did insecure spouses. Lussler, Sabourin, and Turgeon (1997) recently reported that avoidant and ambivalent husbands and wives reported more marital distress than secure spouses. Finally, Senchak and Leonard (1992) found that couples in marriages with two secure spouses reported more marital intimacy than couples in mixed marriages (i.e., one secure and one insecure spouse), and less withdrawal and verbal aggression than couples in marriages with two insecure spouses. In the present study, we examined the affective quality of marital relationships as a function of the couples' attachment pairings and hypothesized that marriages in which both partners were secure would be characterized by more love and less conflict than marriages involving two insecure partners.

In the case of marriages in which one partner was secure and the other partner insecure, we were interested in examining social buffering effects, as well as issues regarding continuity and discontinuity in attachment styles. Caspi and Herbener (1990) have suggested that individuals tend to select partners with similar social histories so that the relationship that eventually develops between these partners will be similar to those social relationships experienced earlier in life. Because of the continuity characterizing these individuals' past and current social relationships, there is little reason to expect behavior or personality change to occur over time. In situations where marriage partners have dissimilar social histories, one might expect behavioral change over the course of the marriage given that current relationship experiences are different from the individuals' past relationship histories. What this implies for the area of adult attachment relationships is that a greater likelihood of change (i.e., discontinuity) in attachment styles would be expected for those marriages between a secure and insecure spouse than those marriages between spouses with similar attachment styles. These relationships may offer an opportunity for the insecure spouse married to a secure spouse to benefit or change toward a more secure working model of self and relationships. In the current study, we examined whether there was any evidence that insecure partners married to secure spouses might be protected from the marital and emotional difficulties hypothesized to characterize relationships consisting of two insecure spouses.

Many studies to date have examined partner attachments in marital relationships by collapsing all relationships with a secure and insecure partner, regardless of partner gender. This could potentially obscure interesting relationship differences based on gender (Kirkpatrick & Davis, 1994). Gottman's (1994) research on marital interaction and the predictors of divorce suggested that wives were the emotion regulators of marital relationships. Wives often interjected humor and positive affect into tense marital interactions which, in turn, dissipated negative affect between marriage partners. Gottman suggested that when wives no longer assumed this regulatory role and diffused tense interactions with positive affect, the marital relationship became dysfunctional. Kirkpatrick and Davis (1994) also suggested that women were "the maintainers and breakers of relationships" (p. 510) and found that the dating relationships between avoidant women and anxious-ambivalent men had the highest breakup rates over the 3-year period of their study. Surprisingly, dating couples consisting of an anxious-ambivalent woman and an avoidant man were one of the longest lasting relationships, even though avoidant men rated their relationships as the least satisfying and the most conflicted (see similar results by Collins & Read, 1990; Simpson, 1990). Kirkpatrick and Davis (1994) suggested that avoidant women (who were emotionally distant) were less skilled than either secure women or anxious-ambivalent women at maintaining their relationships. Anxious-ambivalent women, due to their concerns of abandonment and a preoccupation with relationships, and secure women were thought to have the necessary skills to maintain their relationships. As a result, avoidant women's relationships were at-risk for subsequent dissolution because women, not their male partners, were considered to be the experts at relationship management. Thus, marital relationships in which the woman is avoidant, but married to a secure husband, might be more at-risk for relationship difficulties than the marriage in which the woman is secure, but her husband is avoidant. In essence, the secure wife married to an insecure husband may be able to compensate by virtue of her expert role as an emotion manager for the difficulties encountered in the avoidant wife-secure husband marriages. Marriages consisting of avoidant wives and insecure husbands (either avoidant or anxious) may be the most disruptive given the social and emotional inadequacies of both partners to maintain a relationship. In the current research, comparisons were made across secure husband-insecure wife and insecure husband-secure wife marriages to examine the potential protective effect of being married to a secure spouse, and whether these effects differed by spousal gender.

Attachment and Parenting

Even though recent investigations have started to focus on the links between adult attachment styles and marital relationship quality, the majority of these studies have examined newlyweds or couples in the early years of marriage. Few studies have addressed how adult attachment styles in married couples with children might affect the spouses' models of parenting (i.e., their perceived competence) or their parenting behavior. The extant literature addressing the association between marital quality and parenting has suggested that marital support predicts feelings of parental competence, sensitive parenting, and the development of secure infant-parent attachments (Belsky & Volling, 1987; Cox, Owen,

Lewis, & Henderson, 1989; Engfer, 1988; Goldberg & Easterbrooks, 1984; Isabella & Belsky, 1985; Pederson, Anderson, & Cain, 1980; Volling & Belsky, 1992; see also the meta-analysis by Erel & Burman, 1995). One would expect, then, that marital relationships that differed with respect to attachment styles should be related to parenting and the development of parent-child relationships. Recently, Rholes and his colleagues (Rholes, Simpson, & Blakely, 1995) reported that avoidant mothers of preschool children reported feeling less close to their children and were less supportive during mother-child interaction in a teaching situation. Ambivalent mothers also reported feeling less closeness in the mother-child relationship, but this was moderated by the quality of the marital relationship. Ambivalent mothers felt closer to their children when marital quality was low and more distant to their children when marital quality was high. The third aim of the current study, then, was to examine whether comparisons across adult attachment pairings among married couples with children would reveal differences in perceptions of parental competence and observed behavior during parent-infant interaction.

The final aim of the current research was to examine the relation between adult attachment styles and the security of infant-parent attachments to mother and father. It is interesting that no study of adult attachment styles to date has examined how adult attachment styles between marriage partners would affect infant-parent attachment relationships. Several recent investigations have found rather consistent findings regarding the intergenerational transmission of attachment relationships using the Adult Attachment Interview (AAI) developed by Main and Goldwyn (1991). These studies find consistent associations between the dismissing, preoccupied, and secure AAI classifications of parents and the avoidant, ambivalent, and secure classifications of infant-parent attachment, respectively (e.g., Fonagy, Steele, & Steele, 1991; Main, Kaplan, & Cassidy, 1985; Steele, Steele, & Fonagy, 1996; van IJzendoorn, 1994). It cannot be assumed, however, that classifications of the AAI and those of adult attachment styles are measuring the same constructs of attachment. The AAI was developed to measure the parents' current state of mind regarding their childhood attachments with their primary caregiver (e.g., feelings of rejection, separation and loss experiences, and memories of being hurt and distressed) as well as their present relationships with their own parents. Measures of adult attachment styles, on the other hand, were developed to assess the adults' beliefs and feelings about their adult romantic love relationships. Although there is considerable conceptual similarity between the categories of the AAI and adult attachment styles, no empirical link has yet been demonstrated between adult romantic attachments and parent-infant attachment to the same extent as that between the AAI and parent-infant relationships (see Crowell & Waters, 1994, for a similar discussion).

In sum, there were four aims to the current work: (a) to investigate the pattern of spousal pairings with respect to adult attachment styles; (b) to examine marital relationship quality, spousal well-being, and working models of self and others as correlates of different attachment pairings; (c) to explore the associations between spouses' attachment styles, their mental models of parenting, and parenting behavior; and (d) to examine the links between adult attachment styles and the security of infant-parent attachment relationships.

Method

Participants

Participants were 62 married couples and their one-year-old infants recruited as part of a short-term, longitudinal study on family relationships in early childhood. Families were identified and recruited through local birth announcements based on the following three criteria: (a) families had to be maritally-intact, (b) both spouses had to agree to participate; and (c) there had to be one child approaching 12 months of age and another older preschool child in the family between the ages of 2 and 6. Letters describing the study were sent to eligible families and were followed-up with a phone call. Of eligible families fitting study criteria, 69% agreed to participate. Couples were married, on average, 7.5 years and had an average of 2.3 children. The majority of the infants were second-born (n = 44) with the remaining 16 children third- through fifth-born. Husbands averaged 17.4 years of education, were 35.5 years old, on average, and 96.8% of them were employed, whereas wives averaged 16.5 years of education, were 33.2 years old, on average, and 66.1% of them were employed either part-time or full-time. Husbands (80%) were mainly employed in professional or semi-professional occupations, while the majority (68%) of their wives were either semi-professionals or unemployed homemakers. The sample was predominately European-American (n = 56), with 1 Native-American, 1 East Asian, and 4 interracial couples. The modal family income was $55,000.

Procedures

All families were invited to the university laboratory when their youngest child was 12, 13, and 16 months of age for a series of sessions designed to assess parent-infant and sibling relationships. The 12- and 13-month visits were counterbalanced assessments of mother-infant and father-infant interaction, which included assessments of infant-mother and infant-father attachment using the Strange Situation procedure described by Ainsworth and her colleagues (Ainsworth et al., 1978). The 16-month visit involved a series of triadic interaction tasks between parents and siblings, but these are not the source of data reported here. Both parents were given a questionnaire packet at the end of the 12- and 13-month visits to complete at home. Husbands and wives were asked to complete their questionnaires separately and to return them within two weeks by mail. Because 2 husbands and 1 wife failed to return their questionnaires, data for 59 couples were available for analysis. All families were paid $30 for their participation.

Measures

Both husbands' and wives' questionnaires were identical and assessed several domains including emotional well-being, marital relationship functioning, models of self (i.e., self-esteem) and others (i.e., social support in relationships), parenting competence, and adult attachment styles.

Adult attachment styles. To assess the spouses' attachment styles, each spouse completed the forced-choice measure developed by Hazan and Shaver (1987). In response to the question, "which of the following best describes your feelings?" spouses chose one of the following three possibilities:

(1) *Secure:* I find it relatively easy to get close to others and I am comfortable depending on them and having them depend on me. I don't worry about being abandoned or about someone getting too close to me.

(2) *Avoidant:* I am somewhat uncomfortable being close to others: I find it difficult to trust them completely, difficult to allow myself to depend on them. I am nervous when anyone gets too close, and often, love partners want me to be more intimate than I feel comfortable being.

(3) *Anxious/Ambivalent:* I find that others are reluctant to get as close as I would like. I often worry that my partner doesn't really love me or won't want to stay with me. I want to merge completely with another person, and this desire sometimes scares people away.

Hazan and Shaver (1987) provided reliability and validity information for this measure by reporting that respondents who chose the secure, avoidant, and ambivalent descriptions differed in their romantic experiences, self perceptions, and childhood experiences with parents consistent with predictions from attachment theory (see Shaver & Hazan, 1993, for a review of the empirical studies using this measure).

Emotional well-being. To assess emotional well-being, both husbands and wives completed the Beck Depression Inventory (BDI: Beck, Ward, Mendelson, Mach, & Erbaugh, 1961). This measure consists of 21 items in which individuals rate their depressive symptoms on a 4-point scale. The BDI has been widely used in research with non-clinical samples, and is an indicator of depressive symptomatology rather than clinical depression (Coyne & Gottlib, 1983). The psychometric properties of the BDI have been well-established (see Beck, Steer, & Garbin, 1988). The internal consistency for the current sample was .77 for wives and .75 for husbands.

Working models of self. Rosenberg's (1979) self-esteem scale was used to measure husbands' and wives' feelings of self-worth. This measure consists of 10 questions designed to assess feelings of global self-esteem (e.g., "I feel that I have a number of good qualities") that are rated on a 4-point Likert scale (1 = strongly agree to 4 = strongly disagree). Alpha coefficients for the current sample were .86 for wives and .85 for husbands. Earlier studies of adult attachment styles have found relations between scores on the Rosenberg self-esteem scale and secure attachments (Bartholomew & Horowitz, 1991; Collins & Read, 1990).

Social support and working models of others. To assess whether spouses in different attachment relationships also perceived differences in the support received from others in their social relationships, the 24-item Social Provisions Scale (SPS: Cutrona & Russell, 1987) was completed by both husbands and wives. The SPS was originally developed to assess six relational provisions (identified by Weiss, 1974) acquired in relationships with others. The six scales of the SPS correspond to the different relational provisions and include: (a) *attachment* which is provided by intimate relationships in which the individual receives a sense of security and safety; (b) *social integration* which is provided by a network of relationships in which persons share interests and concerns; (c) *opportunities for nurturance* in which the person is responsible for the well-being of another; (d) *reassurance of worth* which is provided by relationships in which the individual's skills and abilities are acknowledged by others; (e) *reliable alliance* which is derived from relationships in which the person can count on others for assistance; and (f) *guidance* which is provided by relationships with trustworthy and authoritative individuals who can provide needed advice. Each of the 6 provisions is assessed by 4 items rated on a 4-point Likert scale (1 = strongly disagree to 4 = strongly agree). Specific items are then reversed scored so that high scores reflect more perceived *attachment* (e.g., "I have close relationships that provide me with a sense of emotional security and well-being"; α = .69 for wives, .81 for husbands), *social integration* (e.g., "There are people who enjoy the same social activities I do"; α = .79 for wives, .81 for husbands), *opportunities for nurturance* (e.g., "There are people who depend on me for help"; α = .66 for wives, .77 for husbands), *reassurance of worth* (e.g., "I have relationships where my competence and skill are recognized"; α = .73 for wives, .76 for husbands), *reliable alliances* (e.g., "There are people I can depend on to help me if I really need it"; α = .79 for wives, .72 for husbands), and *guidance* (e.g., "There is someone I could talk to about important decisions in my life"; α = .84 for wives, .89 for husbands).

Marital relationship. Braiker and Kelley's (1979) 25-item questionnaire of intimate relations was used to assess the quality of the marital relationship. Individuals rated on a 9-point scale the degree to which each statement was characteristic of their current relationship with their spouse (1 = "very little or not at all" to 9 = "extremely or very much"). The questionnaire consists of four subscales that measure *feelings of love* for the spouse (e.g., "To what extent do you have a sense of "belonging" with your partner"; α = .91 for wives and .85 for husbands); *conflict* (e.g., "How often do you and your partner argue with one another"; α = .75 for wives and .76 for husbands); *ambivalence* (e.g., "How confused are you about your feelings toward your partner"; α = .84 and .83 for wives and husbands, respectively) and *maintenance* (e.g., "To what extent do you reveal or disclose very intimate facts about yourself to your partner"; α = .76 for wives and .69 for husbands). Previous work found these scales were sensitive to marital change across the transition to parenthood (Belsky, Lang, & Rovine, 1985) and were related to the security of infant-mother and infant-father attachment relationships when infants were 12 months of age (Isabella & Belsky, 1985; Volling & Belsky, 1992).

A single item measure was also used to assess overall marital satisfaction. Participants rated how satisfied they were with their marriages over the previous two months on a 7-point Likert scale (1 = completely satisfied to 7 = very dissatisfied).

Working models of parenting. One subscale from the Parenting Stress Index (PSI: Abidin, 1983) was included to measure the parents' perceptions of competence in child-rearing. The parental competence scale consists of 11 items rated on a 5-point Likert scale (1 = strongly agree to 5 = strongly disagree). High scores on this scale indicated more perceived incompetence in the parental role (e.g., "Being a parent is harder than I thought it would be"; α = .70 for wives and .70 for husbands). Abidin (1983) reports high levels of test-retest reliability and acceptable factorial validity for the scales of the PSI.

Observed parenting. As part of a 1-1/2 hour laboratory visit, parents were videotaped interacting with their infants in a teaching and free play session when their infants were 12 and 13 months of age (counterbalanced across mothers and fathers). In the 15-minute free play session, several attractive, age-appropriate toys (e.g., tea set, puzzle, toy mailbox) were laid out on a blanket and parents were instructed to play with the baby as they would at home. For the teaching task segment, the parent was given three toys, all beyond the developmental level of a 12-month-old infant to master alone: a xylophone, an activity box, and a stacking pole. Each toy was in a separate box with an index card giving instruc-

tions for that particular toy (e.g., have the baby hit all the keys on the xylophone). Parents were told that all the tasks were beyond the ability of the infant to do alone, but were asked to help the child do the best he/she could. There was no time limit to this task and parents were instructed to knock on the observation window when they thought their child had completed all three tasks to the best of her/his ability. Father-infant dyads completed the task in an average of 11 minutes (SD = 4.10); mother-infant dyads also completed the task in an average of 11 minutes (SD = 4.36).

Videotapes of the free play and teaching sessions were coded for both parental intrusiveness and parental sensitivity. Coding of parental sensitivity and intrusiveness was based on the work of Fish and her colleagues (Fish, Stifter, & Belsky, 1993). Each was rated on a 4-point scale, ranging from 0 (no evidence of behavior) to 3 (repeated and/or intense occurrences of behavior), during 15-second intervals. Sensitive parenting was characterized by behavior that was "baby-centered" (i.e., the parent gauged the infant's interest and mood, and paced the interaction to fit the infant's cues). Examples of sensitivity included contingent vocalizations, providing appropriate levels of stimulation, and encouragement of the infant's efforts. In contrast, intrusive behavior by the parent was characterized by interactions that were "parent-centered" (i.e., the parent disregarded the needs and interests of the infant). Examples of intrusive behavior included presenting a new toy when the infant was focused on another toy or activity, not allowing the infant to handle objects in which he/she showed an interest, or physically manipulating the infant's face or hands to achieve the parent's goal. Interrater reliability calculated on 19 teaching sessions and 29 free play sessions was 83.5% for sensitivity and 89.5% for intrusiveness. Ratings were summed across the 15-second intervals and divided by the number of intervals coded to create a mean score for parental intrusiveness and parental sensitivity for both the free play and teaching sessions.

Infant-parent attachment. Infants were observed at 12 and 13 months of age (counterbalanced across parents) in the Strange Situation following procedures outlined by Ainsworth et al. (1978). The Strange Situation is a standardized procedure consisting of seven 3-minute episodes in which the infant is exposed to increasing levels of stress in an effort to examine whether the infant uses the parent as a secure base to explore and relies on the parent to provide comfort. On the basis of the infants' exploratory behavior, their orientation to the stranger and their behavior upon reunion with the parent, infant-parent relationships are classified into three types of attachment. Infants who greet the parent positively upon reunion, approach the parent, and find comfort in contact with the parent when distressed are classified as *securely attached.* Infants who turn away from the parent upon reunion or avoid interaction are classified as *insecure-avoidant,* whereas those infants who have difficulty being comforted by the parent on reunion and who both seek and resist contact with the parent are classified as *insecure-resistant/ambivalent.*

All Strange Situations were videotaped and subsequently coded as insecure-avoidant (A), secure (B), or insecure-resistant (C), according to the classification system of Ainsworth et al. (1978). The first author, who had been trained initially by Brian Vaughn, trained the second and third authors. After training on 30 tapes from another study of infant attachment, all three coders achieved acceptable reliability with a coding tape provided by L. Alan Sroufe at the University of Minnesota. Interrater reliability among the three coders was 84%. Disagreements on classifications were resolved by consensus.

Of the 62 father-infant dyads classified, 19.4% were insecure-avoidant (n = 12), 59.7% were secure (n = 37), and 21.0% were insecure-resistant (n = 13). For the mother-infant dyads, 16.4% were classified as insecure-avoidant (n = 10), 67.2% as secure (n = 41), and 16.4% as resistant (n = 10). Because of video equipment problems, strange situation data were missing for one of the mother-infant dyads.

Results

The first analysis examined the distribution of secure, avoidant, and anxious-ambivalent classifications of husbands and wives. Next, Cohen's (1960) Kappa was calculated to examine the congruence between husbands' and wives' reported attachment styles. This was followed by a series of 2 (spouse) × 4 (marital attachment group) repeated measures analysis of variance, with spouse as the repeated measure and marital group as the between-subjects factor, to examine whether secure and insecure marital dyads differed with respect to their emotional well-being, mental models of self and others, marital relationship quality, and parenting (Ball, McKenry, & Price-Bonham, 1983). Whenever significant main effects for marital group were found, these were followed with Tukey's HSD post-hoc comparisons to examine significant mean differences between the four marital groups. Planned contrasts were employed whenever significant spouse × marital group interactions emerged. Finally, associations between adult attachment pairings and infant-parent attachment were examined using contingency table analyses.

Distribution of Attachment Styles

Initial analyses examined the distribution of the three different attachment styles for both husbands and wives to compare them with distributions of attachment styles reported in earlier work. For wives, the distribution included 11 avoidant (18.6%), 44 secure (74.5%), and 4 anxious-ambivalent (6.8%) attachment styles. Thirteen husbands reported an avoidant style (22%), 45 a secure style (76%), and only 1 (1.7%) reported an anxious-ambivalent style. Thus, there was a substantially higher percentage of these spouses raising children reporting secure attachment styles.

Congruence Across Spousal Attachment Styles

Cohen's (1960) Kappa was calculated to test for congruence across husbands' and wives' attachment styles and revealed no significant association across spouses (κ = –.002; see Table 1). The most common pairing was between two secure spouses, which is due, in part, to the high proportion of secure spouses in the sample. As in previous work, none of the marital dyads included partners matched on ambivalent attachment styles, although 2 marital dyads did include partners with avoidant attachment styles. There were 9 couples (15.3%) in which the wife reported a secure attachment style and her husband reported an avoidant attachment style, as well as 9 couples where the husband reported a secure attachment

Table 1
Relationships Between Husbands' and Wives' Attachment Styles

	Wives' Classifications			
Husbands' Classifications	Avoidant	Secure	Ambivalent	Row Totals
Avoidant	2	9	2	13
Secure	9	34	2	45
Ambivalent	0	1	0	1
Column totals	11	44	4	59

style and the wife an avoidant attachment style. Two couples included anxious wives married to avoidant men, two couples included anxious wives married to secure men, and one couple included an anxious husband married to a secure wife.

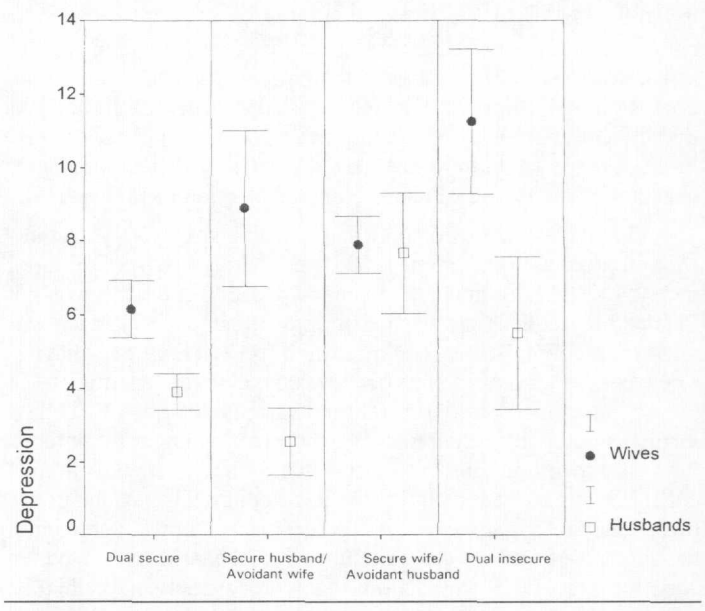
We divided the sample into four marital groups based on their attachment styles: (a) dual-secure couples (n = 34) in which both spouses had a secure attachment style; (b) husband secure-wife avoidant (n = 9); (c) wife secure-husband avoidant (n = 9); and (d) dual-insecure (n = 4) in which both spouses reported an insecure, either avoidant or ambivalent, attachment style. These groupings were used in all subsequent analyses to compare whether differences in mental models of self and others, marital quality, parenting, and emotional well-being existed across marriages in which partners were either dual-secure, mixed (i.e., one secure and the other insecure), or dual-insecure. It was not surprising to find only 4 couples (6.8%) in this sample of married couples who were classified as dual-insecure, given that romantic relationships of individuals with insecure attachment styles are generally shorter in length than those with secure attachment styles (Hazan & Shaver, 1987; Collins & Read, 1990). Moreover, ambivalent attachments seem to be less common as people age (Mickelson, Kessler, & Shaver, 1997). Given the small cell sizes for several of the groups, caution needs to be exercised when interpreting these results. However, no study to date has examined attachment pairings of couples raising children and parenting behavior, even though attachment theorists would claim that one of the reasons for pair-bonding between males and females is to promote reproductive success and provide caregiving for the next generation (Ainsworth, 1991).

Differences Between Securely and Insecurely Attached Marital Dyads

Preliminary analyses examined whether the four marital groups differed with respect to demographic and background characteristics such as age, years married, occupational status, educational level, and income. Results from one-way ANOVAs with marital group as a between subjects factor revealed no significant differences between marital groups on any of the demographic characteristics examined, thus, they were not considered further.

Emotional well-being. To examine whether spouses across the four groups differed with respect to their emotional well-being, a 2 (spouse) × 4 (marital group) repeated measures analysis of variance, with spouse as the repeated factor and marital attachment group as a between-subjects factor, was conducted using depression scores as the dependent variable. Significant group, $F(3, 52) = 2.76$, $p < .05$, and spouse, $F(1, 52) = 17.09$, $p < .001$, main effects emerged for spouses' depression scores which were qualified further by a significant spouse × group interaction, $F(3, 52) = 2.94$, $p < .05$. Means for the four groups are presented in Table 2 and the interaction is depicted in Figure 1. In general, wives (M = 8.6) reported more depressed affect, on average, than their husbands (M = 4.9). Follow-up tests were conducted to examine the interaction and revealed that husbands' and wives' depression scores were significantly different from one another in the dual secure, $t(52) = -2.62$, $p < .01$, husband secure-wife avoidant, $t(52) = -3.83$, $p < .001$, and the dual-insecure couples, $t(52) = -2.32$, $p < .05$, with wives' scores significantly higher than their husbands' depression scores in these couples. This was not the case, however, for the wife secure-husband avoidant couples $t(52) = -.13$, $p = .89$ (see Figure 1). Planned contrasts revealed that avoidant husbands married to secure wives reported

Figure 1. Mean depressed affect scores (+/– 1 SE) for husbands and wives by attachment groups.



significantly more depressed affect than secure husbands married to secure wives, $F(1, 52) = 6.25$, $p < .05$, and secure husbands married to avoidant wives, $F(1, 52) = 7.32$, $p < .01$. Planned contrasts across wives' scores revealed that secure wives married to secure husbands reported significantly less depressed affect than insecure wives married to insecure husbands, $F(1, 52) = 5.80$, $p < .05$.

Mental models of self. Results from the repeated measures analysis of variance with spouses' self-esteem scores revealed a marginal marital group main effect, $F(3, 52) = 3.24$, $p = .05$, and a significant spouse main effect, $F(1, 52) = 18.55$, $p < .001$. Husbands (M = 33.7), in general, reported higher self-esteem than their wives (M = 32.7). Tukey's post-hoc comparisons failed to find significant differences between the four marital groups with respect to spouses' global reports of self-esteem.

Working models of others and social support. Significant group main effects emerged from the 2 (spouse) × 4 (marital group) repeated measures analysis of variance for the attachment, $F(3, 52) = 5.81$, $p < .01$, and social integration scales, $F(3, 52) = 4.37$, $p < .01$. Main effects for spouse were also found for the reliable alliance, $F(1, 52) = 4.68$, $p < .05$, and guidance scales, $F(1, 52) = 4.75$, $p < .05$. Finally, a significant spouse × marital attachment group interaction was found for the attachment scale, $F(3, 52) = 3.77$, $p < .05$. In general, wives reported higher reliable alliance (M = 13.9) and available guidance (M = 13.7) than their husbands (Ms = 13.0 and 12.6, respectively). Tukey's HSD post-hoc comparisons ($p < .05$) revealed that spouses in the dual-secure marital dyads were significantly more integrated into their social network than were spouses in dual-insecure marital relationships (see Table 2). The interaction for the attachment scale is graphed in Figure 2. Follow-up contrasts revealed a significant difference between husbands' and wives' scores in the secure wife-avoidant husband marriages only, $t(52) = -3.50$, $p < .001$. These avoidant husbands were far less likely than their secure wives to report their close relationships with others provided a sense of security and emotional well-being. Planned contrasts across the husbands' scores indicated that these avoidant husbands married to secure wives were far less likely to report close attachments to others than either secure husbands married to secure wives, $F(1, 52) =$

Table 2
Means of Self-Reported Well-Being, Models of Self and Others, Marital Relationship Quality, and Parental Competence as a Function of Marital Attachment Groups

	Attachment Groups				$F(3, 52)$	
	Dual Secure ($n = 34$)	Husband Secure/ Wife Avoidant ($n = 9$)	Wife Secure/ Husband Avoidant ($n = 9$)	Dual Insecure ($n = 4$)	Group	Group × Spouse
Depressed Affect	5.0	5.8	7.8	8.4	2.76*[a]	2.94*
Self-esteem	35.2	33.6	32.4	31.7	3.24*[a]	n.s.
Models of Others						
Attachment	13.6[a]	12.6[a,b]	12.1[b]	11.0[b]	5.81**	3.77*
Social integration	13.6[a]	12.5[a,b]	12.8[a,b]	11.9[b]	4.37**	n.s.
Reassurance of worth	13.6	12.8	13.0	12.6	n.s.	n.s.
Reliable alliance	14.3	13.4	12.9	13.2	n.s.	n.s.
Guidance	13.8	13.3	13.2	12.3	n.s.	n.s.
Opportunities for nurturance	13.4	13.0	12.7	11.5	n.s.	n.s.
Marital Relationship						
Marital love	77.1[a]	72.1[a,b]	72.3[a,b]	60.0[b]	6.27***	3.13*
Marital conflict	20.5	22.1	23.6	27.4	n.s.	n.s.
Marital ambivalence	10.8[a]	13.4[a,b]	15.4[a,b]	20.9[b]	4.49**	n.s.
Marital maintenance	30.0	29.1	28.7	24.7	n.s.	3.09*
Marital satisfaction[b]	2.8	3.7	3.2	4.2	n.s.	n.s.
Parental Competence[c]	22.6[a]	23.2[a,b]	23.6[a,b]	27.9[b]	3.14*	n.s.

Note. Means with different superscripts are significantly different.
[a]No significant differences between marital groups using Tukey's post-hoc comparisons were found.
[b]High scores indicate greater dissatisfaction.
[c]High scores indicate lower perceived competence.
*$p < .05$. **$p < .01$. ***$p < .001$.

11.94, $p < .001$, or secure husbands married to avoidant wives, $F(1, 52) = 7.22$, $p < .01$. Planned contrasts across the wives' attachment scores revealed that insecure wives married to insecure husbands reported significantly fewer attachments to others in their social network than secure wives married to secure husbands, $F(1, 52) = 10.59$, $p < .01$, or secure wives married to avoidant husbands, $F(1, 52) = 7.31$, $p < .01$. Moreover, avoidant wives married to secure husbands also reported fewer feelings of attachment to others than secure wives married to secure husbands, $F(1, 52) = 6.04$, $p < .05$.

Marital relationship quality. To assess whether spouses in the four marital dyads perceived their marital relationships differently, 2 (spouse) × 4 (marital group) repeated measures analyses of variance with spouse as the repeated factor and group as the between-subjects factor were conducted using husbands' and wives' marital reports of conflict, maintenance, ambivalence, love, and satisfaction. The marital group means from these analyses are summarized in Table 2. A significant spouse main effect was found for the ambivalence scale, $F(1, 52) = 9.14$, $p < .01$. Husbands ($M = 16.6$), in general, reported more ambivalence about their marital relationships than did their wives ($M = 13.6$). Significant main effects for marital groups were found for both the love, $F(3, 52) = 6.27$, $p < .001$, and ambivalence scales, $F(3, 52) = 4.49$, $p < .01$. Spouses in dual-secure marriages reported more love for their partners and less ambivalence about their relationships than couples in dual-insecure marriages (see Table 2). This was qualified further, however, by a significant spouse × group interaction for marital love, $F(3, 52) = 3.13$, $p < .05$, which is depicted in Figure 3. Follow-up contrasts indicated that husbands' and wives' scores of marital love were most discrepant in

Figure 2. Mean attachment to others scores (+/– 1 SE) for husbands and wives by attachment groups.

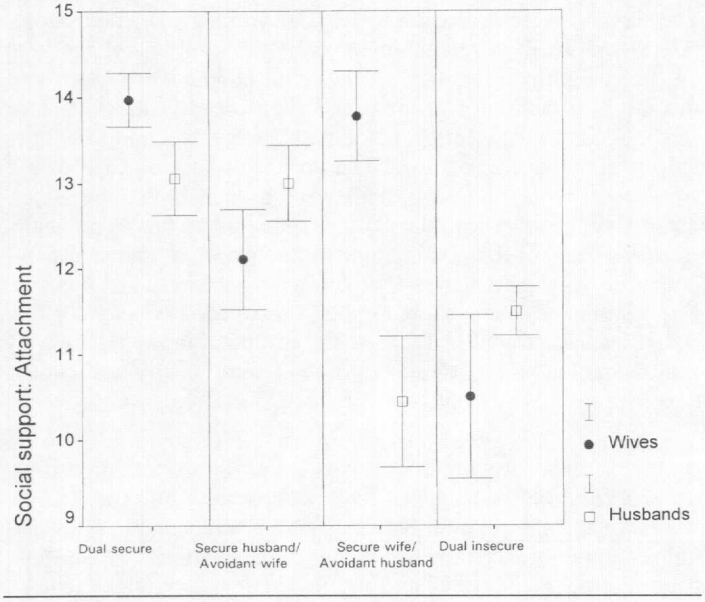
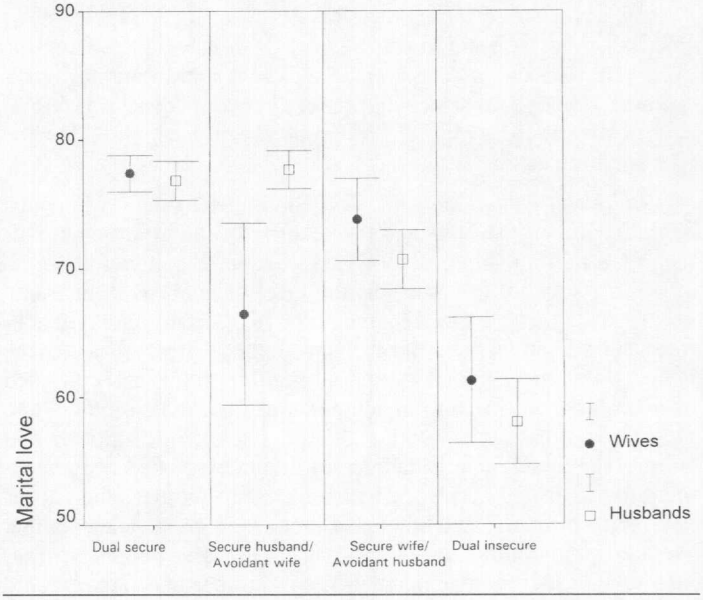


Figure 3. Mean marital love scores (+/– 1 SE) for husbands and wives by attachment groups.



the secure husband-avoidant wife couples, $t(52) = 2.93$, $p < .01$, with wives reporting significantly less love than their husbands. Planned contrasts across husbands' love scores indicated that insecure husbands married to insecure wives reported loving their wives significantly less than secure husbands married to secure wives, $F(1, 52) = 13.01$, $p < .001$, secure husbands married to avoidant wives, $F(1, 52) = 10.99$, $p < .01$, and avoidant husbands married to secure wives, $F(1, 52) = 4.56$, $p < .05$. Planned contrasts across wives' love scores indicated that insecure wives married to insecure husbands loved their husbands significantly less than secure wives married to avoidant husbands, $F(1, 52) = 4.46$, $p < .05$, and secure wives married to secure husbands, $F(1, 52) = 9.55$, $p < .01$. Finally, avoidant wives married to secure husbands reported significantly less love for their husbands than secure wives married to secure husbands, $F(1, 52) = 8.73$, $p < .01$.

In addition, there was a significant spouse × group interaction for the marital maintenance scale, $F(3, 52) = 3.09$, $p < .05$ (see Figure 4). Follow-up contrasts indicated greater discrepancies in husbands' and wives' marital maintenance scores in the dual-secure, $t(52) = -2.15$, $p < .05$, and the secure wife-avoidant husband marriages, $t(52) = -2.79$, $p < .01$. Although wives in these couples reported expending more effort at maintaining their marriages, in general, than their husbands, the biggest discrepancy between husbands and wives was in those marriages between secure wives and avoidant husbands (see Figure 4). Planned contrasts across wives' maintenance scores indicated that insecure women married to insecure husbands reported fewer efforts at maintaining their marriages than did secure wives married to secure husbands, $F(1, 52) = 4.31$, $p < .05$, and secure wives married to avoidant husbands, $F(1, 52) = 4.13$, $p < .05$. Planned contrasts revealed no significant differences across husbands' maintenance scores.

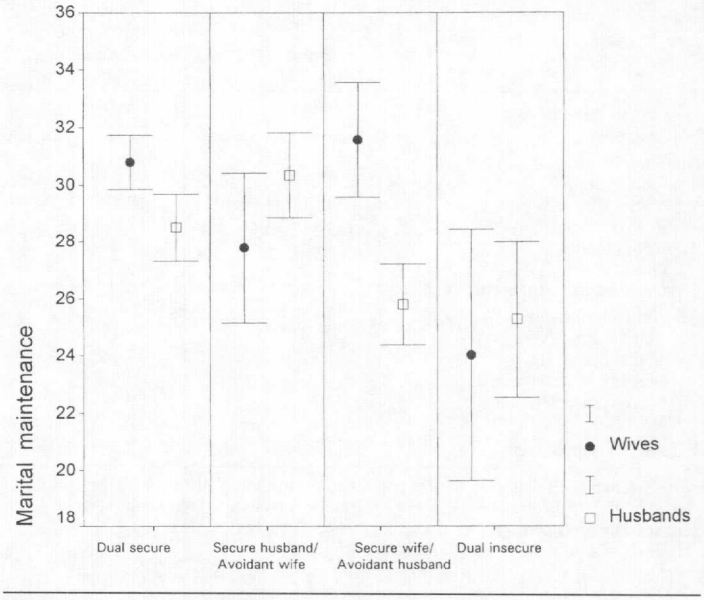
There were no significant main effects or interactions found for the spouses' reports of marital satisfaction or marital conflict.

Working models of parenting. The 2 (spouse) × 4 (marital group) repeated measures analysis of variance revealed a significant marital group effect for feelings of parental competence, $F(3, 52) = 3.14$, $p < .05$. Post-hoc comparisons revealed that spouses in dual-insecure marital relationships felt significantly more incompetent in their parenting roles than spouses in dual-secure marriages (see Table 2).

Observations of parenting. Results from the 2 (spouse) × 4 (marital group) repeated measures analysis of variance using the observed assessments of parental sensitivity and parental intrusiveness revealed no significant main effects for marital group or significant spouse × marital group interaction terms in either the free play or teaching sessions.

Infant-parent attachment. To examine the relation between adult attachment pairings and the security of the infant-parent attachment relationships, several analyses were conducted. In an effort to focus on the family as the level of analysis, four infant groups were formed based on the security of infant-parent attachment classifications with mother and father. These groups were intended to parallel those of the four marital groups and consisted of (a) infants with secure attachments to both their mothers and their fathers; (b) infants with a secure attachment to mother and an insecure attachment to father; (c) infants with a secure attachment to father and an insecure attachment to mother; and (d) infants with insecure attachments to both their mother and father. We used prediction analysis to test the following hypotheses: (a) infants with secure attachments to both mother and father would most likely be in families in which both parents reported secure attachment styles; (b) infants with insecure attachments to both parents would be overrepresented in families in which both the husband and wife reported insecure attachment styles; (c) infants with an insecure attachment to mother and a secure attachment to father would most often be found in families with an avoidant wife-secure husband couple; and (d) infants with an insecure attachment to father and a secure attachment to mother would be found most often in families with avoidant husbands and secure wives.

Figure 4. Mean marital maintenance scores (+/– 1 SE) for husbands and wives by attachment groups.



Prediction analysis assesses the degree to which the hypothesized model of associations successfully accounts for the observed distribution across the relevant variables when compared with a chance distribution (Hildebrand, Laing, & Rosenthal, 1977). Prediction analysis is a theory-driven approach to contingency table analysis that does more than test the existence of associations between variables, but assesses the accuracy of predicted patterns of covariation among the observed associations. The method is described more fully in von Eye & Brandstadter (1988) and involves calculating a contingency table, defined here by the categorical variables of the adult attachment groups and the infant attachment groups, and then identifying "hit" and "error" cells in the contingency table that correspond to the specific hypotheses to be tested. The "hit" cells in this case would correspond with the four hypothesized associations above (e.g., dual secure couples with dual-secure infants) and the "error" cells are those cells in the contingency table which contradict the hypotheses (e.g., dual secure couples with dual insecure infants). The contingency table showing the observed frequencies for this analysis can be found in Table 3. The results of these analyses revealed that the prediction model did not significantly account for the observed associations ($DEL = -.076$, $z = -.96$, n.s.).

As a second means of examining the association between adult attachment styles and infant-parent attachment relationships, we analyzed the husbands and wives separately. In other words, we examined the relation between wives' attachment styles and infant-mother attachment security and the relation between husbands' attachment styles and infant-father attachment security.

Table 3
Contingency Table Analysis for Marital Attachment Groups and Infant Attachment Groups

Infant Attachment Groups	Marital Attachment Groups: Dual Secure	Husband Secure/ Wife Avoidant	Wife Secure/ Husband Avoidant	Dual Insecure	Total
Secure to both parents	12[a]	4	5	3	24
Secure to father/insecure to mother	6	2[a]	0	0	8
Secure to mother/insecure to father	10	1	1[a]	0	12
Insecure to both parents	6	1	3	1[a]	11
Column total	34	8[b]	9	4	55

[a]These numbers represent "hit" cells.
[b]Strange Situation assessment for one mother-infant dyad was missing due to video equipment failure.

We expected that adult attachment styles of anxious-avoidant, secure, and anxious-ambivalent would be significantly related to insecure-avoidant, secure, and insecure-resistant infant-parent attachments, respectively. Cohen's (1960) Kappa was calculated to examine these associations and revealed no significant correspondence between avoidant, secure, and ambivalent attachments across parents and infants ($\kappa = .049$ for mothers; $\kappa = -.026$ for fathers).[1]

Discussion

Adult romantic attachment styles and their relation to marital relationship functioning, emotional well-being, and working models of self, social relationships, and parenting were the focus of the present investigation. Further, we were interested whether certain patterns of secure and insecure attachment pairings were more likely to occur than other patterns in this sample of married couples with young children. Finally, we extended the work of adult romantic attachments to examine the link between marital attachments, parents' perceptions of competence in raising their own children, parenting behavior, and the security of infant-parent attachment relationships.

Attachment and Marital Couples

The majority of husbands and wives in this study were secure in their attachment styles. Our distribution of avoidant, secure, and anxious-ambivalent attachments was similar to those reported by both Kobak & Hazan (1991) and Senchak & Leonard (1992) in studies examining attachment styles among married couples. In both studies, nearly 80% of husbands and wives reported a secure attachment style compared to the 75% of wives and 76% of husbands in the current study. Avoidant spouses made up 11–20% of the previous samples, with the anxious-ambivalent spouses comprising the smallest proportion of respondents (5–8%). We found nearly identical percentages of avoidant (19% of wives and 22% of husbands) and anxious-ambivalent (7% of wives and 2% of husbands) spouses in the current study of couples married on average for 7.5 years. Even though the sample for the current study was relatively small, the lower percentage of anxious-ambivalent spouses is not due entirely to the sample size, as Senchak and Leonard found a similar distribution among the 322 newlywed couples participating in their study.

There are several possible explanations as to why a greater percentage of secure respondents were found among this sample of married couples. First, the recruitment of couples from birth announcements in the current study may have led to an oversampling of relatively well-functioning, married couples. It is not surprising, then, that these couples would be predominantly secure. Samples of clinically distressed couples might have revealed a very different picture and a greater percentage of relationships including avoidant and, particularly, anxious-ambivalent spouses. The recent work of Holtzworth-Munroe, Stuart, & Hutchinson (1997) has shown that violent, maritally-distressed husbands were more likely to be anxious about abandonment, were less secure in their romantic relationships, and more preoccupied and fearful about attachments than nonviolent husbands (see also Henderson, Bartholomew, & Dutton, 1997). It seems anxious and avoidant respondents also have less stable marital relationships and their marriages are more likely to end in divorce. In this regard, Mickelson et al. (1997), using a nationally representative sample, and Lussler et al. (1997) recently reported a greater number of anxious-ambivalent respondents among previously married or divorced partners. Clearly, more empirical work is needed which examines attachment styles in clinically distressed marriages, among divorced partners and, it would seem, with victims of domestic violence.

Due in part to the greater number of secure husbands and wives in the current work, there were also more marriages that included two secure spouses (nearly 58%) and fewer marriages that included two insecure couples (only 7%). There were no couples in which both spouses were anxious/ambivalent, although 2 couples were both avoidant. These findings are remarkably similar to those of earlier reports in which avoidant-avoidant and ambivalent-ambivalent pairings among dating or married couples were either rare or nonexistent (Kirkpatrick & Davis, 1994; Senchak & Leonard, 1992). Senchak and Leonard's (1992) results with newlywed couples suggested that only 2 of 322 couples were both ambivalent. We had also anticipated that the dual-insecure couples would mostly consist of anxious-ambivalent wives and avoidant husbands, given the stability of these relationships noted in prior work (Kirkpatrick & Davis, 1994). Two of the four marriages between insecure spouses included an anxious-ambivalent wife and an avoidant husband in the current study.

Emotion Regulation and Affective Well-Being

Another aim of the current work was to examine whether spouses' working models of self and their affective well-being differed as a function of the security and insecurity of the marital pairings of attachment. In contrast to earlier studies finding consistent links between reports of self-esteem and attachment styles (e.g., Bartholomew & Horowitz, 1991; Collins & Read, 1990; Feeney & Noller, 1990), we found no evidence of significant differences between the four marital groups in their overall feelings of self-esteem. This may be partially explained by the fact that we analyzed self-esteem and attachment at the couple level and not at the level of the individual, which is where one might expect an association between a measure of *self*-esteem and attachment to exist.

There were, however, differences in husbands' and wives' depressed affect depending on marital attachment pairings. Women, in general, reported more depressed affect than their husbands, but avoidant husbands married to secure wives were more depressed than secure husbands, regardless of whether the secure husbands were married to secure or avoidant wives. Parental rejection in childhood has been associated with adult depression (Lefkowitz & Tesiny, 1984) and has also been theorized to give rise to avoidant attachment styles (Kobak & Sceery, 1988). Thus, avoidant spouses in the current study may be more vulnerable to depressed affect than either secure or ambivalent spouses. Their depressive symptoms might also be responsible for their lack of effort to maintain marital communication and emotional connections to others in social networks, as reported by the avoidant spouses in the mixed marriages. It is possible that parental rejection and the development of an avoidant attachment style places these spouses at-risk for the development of depression, which then affects their marital and social relationships. Alternatively, avoidant spouses, who may be vulnerable to depressed affect, may become depressed as a result of the experiences in their close relationships. Gotlib and Hooley (1988), in their review of the clinical literature, concluded that depressed individuals and their spouses have more problematic communication, negative affect and conflict in their marriages. Without longitudinal data, however, it is not possible to determine whether avoidant attachment styles are responsible for the depressive affect expressed by avoidant spouses which, in turn, affects marital and social interaction, or whether current relationship experiences trigger depressed affect among avoidant spouses, who may be at-risk for depression.

Relationship Support and Marital Functioning

In the analysis of perceptions of social support and marital functioning, consistent differences emerged between couples with two secure spouses and couples with two insecure spouses. Dual-secure spouses reported more love for their partners and less ambivalence about their marital relationships, as well as more shared interests with people in their social networks, than dual-insecure spouses. It is notable that no differences were found between the four attachment groups with respect to their reports of relationship satisfaction or their reports of marital conflict. Differences between the marital groupings were found in those areas assessing the emotional life of the relationship, specifically the spouses' *feelings* of love and ambivalence, as well as their commitments to make the relationship work. While statistically the mixed groups (i.e., insecure and secure spouse) did not differ from dual-secure or dual-insecure marriages at a group level, differences between the mixed groups were revealed in several of the statistical interactions. Recall that avoidant husbands married to secure wives were more depressed and less emotionally attached to others in their social relationships outside the family than secure husbands in general. These avoidant men, however, reported reciprocal love for their secure wives and did not love them any less than the secure husbands, married either to secure or avoidant wives. In this avoidant husband-secure wife marriage, the secure wife was mainly responsible for maintaining social relationships outside the family as well as maintaining marital relations inside the family. Secure women married to secure men were also more likely to report maintaining social relationships inside and outside the family than were their secure husbands. In these two marriages, women were, indeed, fulfilling their roles as relationship managers, and in both the dual-secure and secure wife-avoidant husband pairings, spouses reported higher levels of reciprocal love for one another.

This was in contrast to the lower reports of love by both spouses in the dual-insecure marriages and by the wife in the avoidant wife-secure husband marriages. In this latter marriage, there was a greater discrepancy between the avoidant wife and her secure husband with respect to their efforts at maintaining social relationships with others outside the family, their efforts at enriching their marital relationships, and their reported love for one another. Men in these families loved their wives, worked to maintain their marriages, and may have also been responsible for bringing their avoidant wives into their circle of kin and friends, allowing her an opportunity to connect emotionally with others. In essence, the husband in these marriages was responsible for relationship management both inside and outside the family. Unlike the secure wife-avoidant husband marriages, in which secure women in their role as relationship managers were able to establish and maintain an affective relationship that allowed their avoidant husbands to develop a loving relationship with them, avoidant wives married to secure husbands did not love their husbands any more than insecure wives married to insecure husbands. Thus, a similar process of compensation did not appear to be at work for avoidant wives married to secure husbands, even though these men loved their wives and made significant attempts to enrich the marital relationship.

The cross-sectional nature of these findings certainly limits any inferences that can be made regarding cause-effect relations, yet recent prospective work by Feeney and her colleagues (Feeney, 1994; Feeney, Noller, & Callan, 1994) also suggests that current relationship experiences can affect attachment styles by making people, especially men, feel more secure or anxious over time. In their longitudinal investigation of young married couples, Feeney et al. (1994) reported that for *husbands*, early conflict patterns measured one year after the marriage predicted greater anxiety 21 months after the wedding, whereas early relationship satisfaction 12 months after the wedding predicted more closeness and less anxiety at 21 months. Collectively, these findings suggest that attachment models of romantic relationships may be influenced by current relationship functioning, but the evidence appears to indicate different change processes may be at work for husbands and wives. This is certainly an area in which further longitudinal research is needed.

Attachment Styles and Parenting

The final aim of this study was to examine whether attachment styles of married partners, who were also parents, had any relation to these parents' perceptions of parenting, their observed parenting, and the development of the attachment relationships between them and their one-year-old children. Dual-secure couples reported feeling more competent in their parenting role than did dual-insecure couples. One possible explanation for these findings may lie in the childhood experiences of these spouses. Theoretically, sensitive and responsive parenting in one's childhood should not only result in a mental model of secure attachment relationships, but should also provide an observable model for parenting one's own children (Sroufe & Fleeson, 1988). Adults with insecure adult attachment styles, on the other hand, are thought to have experienced insensitive or inconsistent care from their parents during childhood and such caregiving is less likely to result in internal working models of the self as worthy and others as caring. These differences in child-rearing histories can either promote or undermine a sense of efficacy in caring for one's own children.

Although these findings support an association between the attachment styles of parents and their perceptions of competence as parents, similar associations did not emerge for observed parenting behavior or the security of the infant-parent attachment relationships. Unlike several other investigations supporting an intergenerational link between working models of attachment using the Adult Attachment Interview and infant attachment security (e.g., Fonagy et al., 1991), we found no evidence of a link between adult attachment styles of romantic relationships and the security of the infant-mother or infant-father attachment relationships. Similarly, there was no evidence of an association between the marital attachment groups, and the mothers' and fathers' sensitive and intrusive behaviors while interacting with their infants in either a free play or teaching situation. This was rather surprising given the extensive literature documenting relations between marital relationship quality and parenting (Erel & Burman, 1995), and recent work by Rholes and his colleagues (Rholes et al., 1995) in which avoidant mothers (assessed with an attachment styles measure) were less supportive of their preschool children during mother-child interaction. There are several possible explanations for the lack of associations found in the current work which may hold promise for designing future studies in this area.

One possibility may be related to the composition of the families under investigation. These infants were all second- or later-born children. Thus, parents already had extensive experience in raising another older child before the infant was born. Mental representations of attachment relationships may be better at predicting parenting of firstborn children when the parental role is still new and parents have no prior child rearing experiences.

A second possibility may be due in some part to the measure of adult attachment used in the current investigation. The original Hazan & Shaver measure has demonstrated reliability and validity as a measure of adult *romantic* attachment (see Shaver & Hazan, 1993), yet it did not relate to infant attachment and parenting to the same extent as has been found with the AAI, another measure of adult attachment. It is quite possible that these two measures of "adult attachment" assess different attachment constructs (i.e., models of romantic attachments versus models of childhood attachments) and as such, they should not be expected to predict parenting or child outcomes in the same manner. As might be expected, the current work did find meaningful differences in *marital* relationship functioning as a result of the romantic attachment pairings, but did not find a similar level of specificity in the prediction of parenting and infant attachment security. The AAI, which measures childhood attachments with parents, has been far more successful in predicting infant attachment relationships with both mothers and fathers, but may be a very poor predictor of marital relationship quality. Working models of romantic attachments and models of parenting are considered relevant for the development of attachment relationships across the life-span (Ainsworth, 1991). Clearly, additional research is needed to examine different attachment constructs and their role in predicting family relationship functioning.

A second measurement issue may also explain the relative lack of associations found between the adult attachment groups, parenting behavior and infant attachment in the current study. Bartholomew and Shaver (1998) have argued that the avoidant classification of the original Hazan & Shaver (1987) self-report measure of romantic attachment assesses the construct of fearful avoidance (i.e., a fear of close intimacy), and not dismissing avoidance (i.e., dismissing the importance of attachment needs), which is the dimension of attachment tapped by the AAI avoidant category. They recommended a four-category adult attachment system, including secure, anxious-ambivalent, fearful-avoidance, and dismissing-avoidance, be used to capture the variability in romantic attachments (see Bartholomew, 1990). Similarly, we did not utilize the relatively new fourth disorganized attachment category (Main & Solomon, 1990) for classifying infant-parent attachment security. Had we used the four-category model of adult attachment styles (Bartholomew & Horowitz, 1991) along with the four categories of infant attachment security, we may have been more successful in finding an association between adult and infant attachment. Certainly, future research may want to address this possibility further. Finally, Fraley and Waller (1998) have noted the difficulties of predicting outcomes from categorical versus continuous measures of attachment. Rholes et al. (1995), using a continuous measure of adult attachment styles, did find relations between mothers' reports of attachment and parenting behavior, whereas we found no such associations when examining parenting and the categorical classifications of attachment styles. Future work will need to address these various measurement issues before firm conclusions can be drawn about the relations between adult attachment styles, marriage, and parenting.

Limitations and Implications

The current work was limited in some respects by the fact that we examined issues of adult attachment styles, marriage, and parenting using a small, relatively well-functioning sample of married couples raising children. This is probably one reason why we, as well as others studying adult attachment styles in married samples (Kobak & Hazan, 1991; Senchak & Leonard, 1992), have found a larger percentage of secure than insecure spouses. The research is also limited by its reliance on self-report measures of marriage and by its examination of marriage and attachment styles at only one point in time. Future work examining the associations between attachment, marriage, and parenting would benefit by using multiple time-points and multiple measures, such as observations of marital interaction and physiological measures of affect regulation. Because the sample consisted of predominantly White, middle-class, maritally-intact families, there is a need for future research in this area that examines adult attachment, marriage, and parenting in other family forms (e.g., blended families) and in families of color.

The application of attachment theory to the study of adult romantic relationships is relatively new and knowledge about adult attachment and its relations to well-being and relationship functioning is still being accumulated. This prevents us from making strong recommendations for practice to marriage and family therapists or family educators at this time. However, we can offer some suggestions as to where intervention efforts might be directed based on notions of attachment theory and the results emanating from the current work. It should also be noted that our discussion is restricted to adult attachment and marital interaction, as we found no link between adult attachment styles and parenting behavior. Several of our findings imply that differences in marital functioning and emotional well-being were related to the attachment pairings of adult attachment styles among married couples. This suggests that intervention efforts need to be sensitive to the attachment styles of both partners in the marriage as it was often the fit between their attachment styles that seemed to determine relationship dynamics and emotional well-being. The characteristics most predictive of a successful marriage include liking your

mate as a person, the expression of emotion and affection, effective communication, a problem-solving approach to disagreement, and shared common interests (Lauer, Lauer, & Kerr, 1990; Sporakowski & Hughston, 1978). Because couples with different attachment styles most likely have different cognitive expectations about themselves and their relationships, as well as different strategies for regulating affect and its expression, evaluating these different marital components and recommending interventions tailored to spousal differences, would be an important component of the change process.

Because adult attachment styles are theorized to reflect an individual's affectively-based beliefs about social relationships and how one manages emotions in socially distressing situations, practitioners working with distressed couples may want to focus intervention efforts on helping individuals with insecure attachment styles to revise their working models of social relationships, perhaps through the use of cognitive-behavioral or emotion-based therapy. Cognitive-behavioral strategies can be used to address negative cognitions, to train spouses in effective communication, and to increase involvement in shared common interests. All of these are key components to developing successful relationships (Lauer et al., 1990; Sher, Baucom, & Larus, 1990). In addition, recent research has investigated the use of emotionally focused marital therapy (Johnson & Talitman, 1997; Roberts, 1992). This treatment is based on the assumption that marital problems are emotionally based and recommends that therapists address these emotional concerns in the treatment process. Any effort for cognitive or emotional change needs to take into consideration the cognitions and emotions specific to the attachment styles of the couple. The working models and affect expressions of an avoidant spouse who is distant, fearful of intimacy, and uncomfortable with closeness will be different than those of an anxious-ambivalent spouse who is jealous, fears abandonment, and is obsessed with the relationship. One might also expect individuals with insecure attachment styles to impede the rapport building process between the therapist and the couple due, in part, to the insecure individuals' past interactional patterns. This may present a challenge to the therapist, as building rapport with the couple is crucially important for implementing change strategies and creating an investment in the therapeutic process. Sperling and Lyons (1994) offer further suggestions for using psychotherapy to change adult attachment representations. One final note deserves mention. Even though recent studies have found relations between adult attachment styles and psychological disturbance (e.g., Davila, Burge, & Hammen, 1997), measures of attachment security should not be used as clinical or diagnostic tools in isolation from other assessment techniques. Until further research is conducted, assessments of adult attachment styles can only offer probabilistic links to psychological symptoms and relationship functioning.

Endnote

[1]Contingency tables for these analyses are available from the first author.

References

Abidin, R. R. (1983). *Parenting Stress Index-Manual.* Charlottesville, VA: Pediatric Psychology Press.

Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the Strange Situation.* Hillsdale, NJ: Erlbaum.

Ainsworth, M. D. S. (1991). Attachments and other affectional bonds across the life cycle. In C. M. Parkes, J. Stevenson-Hinde, & P. Marris (Eds.), *Attachment across the life cycle* (pp. 33-51). New York: Routledge.

Ball, D., McKenry, P. C., & Price-Bonham, S. (1983). Use of repeated-measures designs in family research. *Journal of Marriage and the Family, 45,* 885-896.

Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. *Journal of Social and Personal Relationships, 7,* 147-178.

Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles in young adults: A test of a four-category model. *Journal of Personality and Social Psychology, 61,* 226-244.

Bartholomew, K., & Shaver, P. R. (1998). Methods of assessing adult attachment: Do they converge? In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 25-45). New York: Guilford.

Beck, A. T., Steer, R. A., & Garbin, M. G. (1988). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review, 8,* 77-100.

Beck, A. T., Ward, C. H., Mendelson, M., Mach, J. E., & Erbaugh, J. K. (1961). An inventory for measuring depression. *Archives of General Psychiatry, 4,* 561-571.

Belsky, J., Lang, M., & Rovine, M. E. (1985). Stability and change in marriage across the transition to parenthood: A second study. *Journal of Marriage and the Family, 47,* 855-865.

Belsky, J., & Volling, B. L. (1987). Mothering, fathering, and marital interaction in the family triad: Exploring family systems' processes. In P. Berman & F. Pederson (Eds.), *Men's transitions to parenthood: Longitudinal studies of early family experience* (pp. 37-63). Hillsdale, NJ: Erlbaum.

Bowlby, J. (1979). *The making and breaking of affectional bonds.* London: Tavistock.

Braiker, H. B., & Kelley, H. H. (1979). Conflict in the development of close relationships. In R. L. Burgess & T. L. Huston (Eds.), *Social exchange in developing relationships* (pp. 135-168). New York: Academic.

Carnelley, K. B., Pietromonaco, P. R., & Jaffe, K. (1994). Depression, working models of others, and relationship functioning. *Journal of Personality and Social Psychology, 66,* 127-140.

Caspi, A., & Herbener, E. S. (1990). Continuity and change: Assortative marriage and the consistency of personality in adulthood. *Journal of Personality and Social Psychology, 58,* 250-258.

Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement, 20,* 37-46.

Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology, 58,* 644-663.

Cox, M. J., Owen, M. T., Lewis, J. M., & Henderson, V. K. (1989). Marriage, adult adjustment, and early parenting. *Child Development, 60,* 1015-1024.

Coyne, J. C., & Gottlib, I. H. (1983). The role of cognition in depression: A critical appraisal. *Psychological Bulletin, 94,* 472-505.

Crowell, J. A., & Waters, E. (1994). Bowlby's theory grown up: The role of attachment in adult love relationships. *Psychological Inquiry, 5,* 31-34.

Cutrona, C. E., & Russell, D. W. (1987). The provisions of social relationships and adaptation to stress. *Advances in Personal Relationships* (vol. 1, pp. 37-67). Greenwich, CT: JAI.

Davila, J., Burge, D., & Hammen, C. (1997). Why does attachment style change? *Journal of Personality and Social Psychology, 73,* 826-838.

Engfer, A. (1988). The interrelatedness of marriage and mother-child relationships. In R. A. Hinde & J. Stevenson-Hinde (Eds.), *Relationships within families: Mutual influences* (pp. 104-118). Oxford, England: Oxford University Press.

Erel, O., & Burman, B. (1995). Interrelatedness of marital relations and parent-child relations: A meta-analytic review. *Psychological Bulletin, 118,* 108-132.

Feeney, J. A. (1994). Attachment style, communication patterns, and satisfaction across the life cycle of marriage. *Personal Relationships, 1,* 333-348.

Feeney, J. A., & Noller, P. (1990). Attachment style as a predictor of adult romantic relationships. *Journal of Personality and Social Psychology, 58,* 281-291.

Feeney, J., & Noller, P. (1996). *Adult attachment.* Thousand Oaks, CA: Sage.

Feeney, J. A., Noller, P., & Callan, V. J. (1994). Attachment style, communication, and satisfaction in the early years of marriage. In K. Bartholomew & D. Perlman (Eds.), *Advances in personal relationships* (vol. 5, pp. 269-308). London: Jessica Kingsley.

Fish, M., Stifter, C., & Belsky, J. (1993). Early patterns of mother-infant dyadic interaction: Infant, mother, and demographic antecedents. *Infant Behavior and Development, 16,* 1-18.

Fonagy, P., Steele, H., & Steele, M. (1991). Maternal representations of attachment during pregnancy predict the organization of infant-mother attachment at one year of age. *Child Development, 62,* 891-905.

Fraley, R. C., & Waller, N. G. (1998). Adult attachment patterns: A test of the typological model. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 77-114). New York: Guilford.

Goldberg, W. A., & Easterbrooks, M. A. (1984). The role of marital quality in toddler development. *Developmental Psychology, 20,* 504-514.

Gotlib, I. H., & Hooley, J. M. (1988). Depression and marital distress: Current status and future directions. In S. Duck (Ed.), *Handbook of personal relationships* (pp. 543-570). New York: Wiley.
Gottman, J. M. (1994). *What predicts divorce? The relationship between marital processes and marital outcomes.* Hillsdale, NJ: Erlbaum.
Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology, 52,* 511-524.
Henderson, A. J. Z., Bartholomew, K., & Dutton, D. G. (1997). He loves me; he loves me not: Attachment and separation resolution of abused women. *Journal of Family Violence, 12,* 169-191.
Hildebrand, D. K., Laing, J. D., & Rosenthal, H. (1977). *Prediction analysis of cross-classifications.* New York: Wiley.
Holtzworth-Munroe, A., Stuart, G. L., & Hutchinson, G. (1997). Violent versus nonviolent husbands: Differences in attachment patterns, dependency, and jealousy. *Journal of Family Psychology, 11,* 314-331.
Isabella, R., & Belsky, J. (1985). Marital change during the transition to parenthood and security of infant-parent attachment. *Journal of Family Issues, 6,* 505-522.
Johnson, S. M., & Talitman, E. (1997). Predictors of success in emotionally focused marital therapy. *Journal of Marital and Family Therapy, 23,* 135-152.
Kirkpatrick, L. A., & Davis, K. E. (1994). Attachment style, gender, and relationship stability: A longitudinal analysis. *Journal of Personality and Social Psychology, 66,* 502-512.
Kobak, R. R., & Hazan, C. (1991). Attachment in marriage: Effects of security and accuracy of working models. *Journal of Personality and Social Psychology, 60,* 861-869.
Kobak, R. R., & Sceery, A., (1988). Attachment in late adolescence: Working models, affect regulation, and representations of self and others. *Child Development, 59,* 135-146.
Lauer, R. H., Lauer, J. C., & Kerr, S. (1990). The long-term marriage: Perceptions of stability and satisfaction. *International Journal of Aging and Human Development, 31,* 189-195.
Lefkowitz, M. M., & Tesiny, E. P. (1984). Rejection and depression: Prospective and contemporaneous analyses. *Developmental Psychology, 20,* 776-785.
Lussier, Y., Sabourin, S., & Turgeon, C. (1997). Coping strategies as moderators of the relationship between attachment and marital adjustment. *Journal of Social and Personal Relationships, 14,* 777-791.
Main, M., & Goldwyn, R. (1991). *Adult attachment rating and classification systems: Adult attachment coding manual.* Unpublished manuscript, University of California, Berkeley.
Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood, and adulthood: A move to the level of representation. In I. Bretherton & E. Waters (Eds.), Growing points of attachment theory and research. *Monographs of the Society for Research in Child Development, 50* (1-2, Serial No. 209), 66-104.
Main, M., & Solomon, J. (1990). Procedures for identifying infants as disorganized/disoriented during the Ainsworth strange situation. In M. T. Greenberg, D. Cicchett, & E. M. Cummings (Eds.), *Attachment in the preschool years* (pp. 121-160). Chicago: University of Chicago Press.
Mickelson, K. D., Kessler, R. C., & Shaver, P. R. (1997). Adult attachment in a nationally representative sample. *Journal of Personality and Social Psychology, 73,* 1092-1106.
Mikulciner, M., & Erev, I. (1991). Attachment style and the structure of romantic love. *British Journal of Social Psychology, 30,* 273-291.
Paterson, J., Pryor, J., & Field, J. (1995). Adolescent attachment to parents and friends in relation to aspects of self-esteem. *Journal of Youth and Adolescence, 24,* 365-376.
Pederson, F. A., Anderson, B. J., & Cain, R. J. (1980). Parent-infant and husband-wife interactions observed at age five months. In F. A. Pederson (Ed.), *The father-infant relationship* (pp. 71-96). New York: Praeger.
Pistole, M. C. (1989). Attachment in adult romantic relationships: Style of conflict resolution and relationship satisfaction. *Journal of Social and Personal Relationships, 6,* 505-510.
Priel, B., & Shamai, D. (1995). Attachment style and perceived social support: Effects on affect regulation. *Personality and Individual Differences, 19,* 235-241.
Rholes, W. S., Simpson, J. A., & Blakely, B. S. (1995). Adult attachment styles and mothers' relationships with their young children. *Personal Relationships, 2,* 35-54.
Roberts, T. W. (1992). Sexual attraction and romantic love: Forgotten variables in marital therapy. *Journal of Marital and Family Therapy, 18,* 357-364.
Rosenberg, M. (1979). *Conceiving the self.* New York: Basic Books.
Senchak, M., & Leonard, K. E. (1992). Attachment styles and marital adjustment among newlywed couples. *Journal of Social and Personal Relationships, 9,* 51-64.
Shaver, P. R., & Hazan, C. (1993). Adult romantic attachment: Theory and evidence. In D. Perlman & W. H. Jones (Eds.), *Advances in personal relationships* (vol. 4, pp. 29-70). London: Jessica Kingsley.
Sher, T. G., Baucom, D. H., & Larus, J. M. (1990). Communication patterns and response to treatment among depressed and nondepressed maritally distressed couples. *Journal of Family Psychology, 4,* 63-79.
Simpson, J. A. (1990). Influence of attachment styles on romantic relationships. *Journal of Personality and Social Psychology, 59,* 971-980.
Sperling, M. B., & Lyons, L. S. (1994). Representations of attachment and psychotherapeutic change. In M. B. Sperling & W. H. Berman (Eds.), *Attachment in adults: Theory, assessment, and treatment* (pp. 331-347). New York: Guilford.
Sporakowski, M. J., & Hughston, G. A. (1978). Prescriptions for happy marriage: Adjustments and satisfactions of couples married for 50 or more years. *The Family Coordinator, 27,* 321-327.
Sroufe, L. A., & Fleeson, J. (1988). The coherence of family relationships. In R. H. Hinde & J. Stevenson-Hinde (Eds.), *Relationships within families: Mutual influences* (pp. 27-47). New York: Oxford University Press.
Steele, M., Steele, H., & Fonagy, P. (1996). Associations among attachment classifications of mothers, fathers, and their infants. *Child Development, 67,* 541-555.
van IJzendoorn, M. H. (1994). Adult attachment representations, parental responsiveness, and infant attachment: A meta-analysis on the predictive validity of the Adult Attachment Interview. *Psychological Bulletin, 117,* 387-403.
Volling, B. L., & Belsky, J. (1992). Infant, father, and marital antecedents of infant-father attachment security in dual-earner and single-earner families. *International Journal of Behavioral Development, 15,* 83-100.
von Eye, A., & Brandstadter, J. (1988). Evaluating developmental hypotheses using statement calculus and nonparametric statistics. In P. B. Baltes & R. M. Lerner (Eds.), *Life-span development and behavior* (Vol. 8, pp. 61-97). Hillsdale, NJ: Erlbaum.
Weiss, R. (1974). The provisions of social relationships. In Z. Rubin (Ed.), *Doing unto others* (pp. 17-26). Englewood Cliffs, NJ: Prentice Hall.

Brenda L. Volling is an assistant professor of development psychology at the University of Michigan with interests in family relationships and young children's socioemotional development.

Paul C. Notaro received his Ph.D. in developmental psychology from the University of Michigan. His research interests include attachment relationships across the lifespan and children's understanding of psychogenic illness and other cross-domain concepts.

Joelle J. Larsen is a second year graduate student in clinical psychology at Purdue University with research interests in attachment and childhood psychopathology as well as young children's friendships.

Received 10-7-1997
Revised & Resubmitted 6-3-1998
Accepted 6-10-1998