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Observed and Reported Supportive Coparenting as Predictors of Infant-Mother and Infant-Father Attachment Security

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Abstract

This study examined associations between supportive coparenting and infant-mother and infant-father attachment security. Observed and parent-reported coparenting, and observed maternal and paternal sensitivity were assessed in a sample of 68 families with 3.5-month-old infants. Infant-mother and infant-father attachment security were assessed in the Strange Situation Procedure (Ainsworth, Blehar, Waters, & Wall, 1978) at 12 and 13 months of age, respectively. Observed and reported supportive coparenting were associated with greater attachment security in the infant-father, but not the infant-mother, attachment relationship. The link between observed coparenting and infant-father attachment remained after accounting for paternal sensitivity. Furthermore, child gender moderated some associations between coparenting and infant-parent attachment security. Among families with boys, observed and reported supportive coparenting was related to greater infant-mother and infant-father attachment security, respectively. Coparenting was unrelated to infant-mother or infant-father attachment security among families with girls. Results highlight a possible link between the coparental and father-child relationships and the need to consider both parent and child gender when examining associations between family functioning and attachment.

Keywords

coparenting; attachment security; father-child relations; mother-child relations; gender; sensitivity

Despite a historical focus on mothers as primary caregivers, a sizeable body of work now indicates that children can and do form attachment relationships with fathers (see Lamb, 2002 for a review). Relatedly, family systems theorists have argued that family research should move beyond the dyad to study patterns of family interaction that involve multiple caregivers (Cox & Paley, 1997). Largely lacking in the fathering literature is an integration of family systems and attachment theories generally, and dyadic (i.e., father-child) and

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triadic (i.e., mother-father-child) levels of analysis in particular (Cowan, 1997). A family systems perspective on attachment suggests that family functioning at the triadic level may directly influence the quality of the dyadic parent-child relationships that comprise this triad.

Nonetheless, the association between coparenting -- or the relationship between parents with respect to their child (e.g., McHale, 1995) -- and the infant-mother and/or infant-father attachment relationship has rarely been examined. The present study draws on both attachment and family systems theoretical perspectives as well as prior empirical work (e.g., Caldera & Lindsey, 2006) by examining associations during the first year of life between observed and reported coparenting, observed maternal and paternal sensitivity in the dyadic context, and both the infant-mother and infant-father attachment relationships.

Father-Child Attachment Security

Research on the early father-child relationship provides evidence that infants form attachments to multiple caregivers and direct attachment-related behavior toward both mothers and fathers (see Lamb, 2002). Moreover, infant-mother and infant-father attachment relationships seem to develop largely independent of one another, such that meta-analyses reveal only modest concordance between children's attachments to mothers and fathers within the same family (van Ijzendoorn & De Wolff, 1997; Fox, Kimmerly, & Schaffer, 1991). Although we know much about the factors that predict mother-child attachment security, the correlates of father-child attachment security remain much less elaborated.

The most common and consistent correlate of attachment security to both parents has been parental sensitivity. Sensitivity was at the core of Bowlby (1969) and Ainsworth's (Ainsworth, Bell, & Stayton, 1974) early theorizing on the nature of parent-child attachment, and meta-analytic evidence suggests a significant association between sensitivity and attachment across many empirical studies (De Wolff & van Ijzendoorn, 1997; van Ijzendoorn & De Wolff, 1997). Nonetheless, this meta-analytic work also showed that the association between sensitivity and attachment for mothers is only modest ($r = .24$), and the link for fathers is lower still ($r = .13$). This suggests large portions of unexplained variance in individual differences in attachment security beyond the quality of dyadic parenting behavior. This may be especially true for fathers, given the lower association between attachment security and sensitivity for fathers than mothers, and conceptualizations of fatherhood which argue that fathers are particularly likely to be influenced by contextual characteristics of the family (e.g., Doherty, Kouneski, & Erickson, 1998).

Coparenting

The coparental relationship is one logical place to look for family correlates of attachment security. Coparenting has received increasing attention as research has acknowledged that it predicts child adjustment uniquely (see McHale et al., 2003 for a review). Of particular interest for our work is the notion of supportive coparenting, which consists of confirming the other parent's competence, respecting their contributions and opinions, upholding their decisions, and demonstrating cooperative strategies toward dealing with parenting and childrearing-related issues (e.g., McHale, 1995).

Coparenting is distinct from both parenting and the more general marital relationship (McHale et al., 2003; McHale & Cowan, 1996). As such, coparenting explains unique portions of the variance in various aspects of child adjustment above and beyond the effects of parenting (Caldera & Lindsey, 2006; Karreman, van Tuijl, van Aken, & Dekovic, 2008; Stright & Neitzel, 2003). Importantly, a good deal of evidence has also shown that coparenting also predicts child outcomes above and beyond the influence of broader marital quality (e.g., Bearss & Eyberg, 1998; McHale & Rasmussen, 1998).

Associations between Coparenting and Parent-Child Attachment

Much work speaks to potential links between parenting partnerships and attachment security. For example, the marital literature suggests that the quality of the relationship between parents has a direct impact on child adjustment (see Cummings & Davies, 2002; Erel & Burman, 1995; Gable, Belsky, & Crnic, 1992 for reviews), such that supportive marriages are likely to promote more positive outcomes for children. Supporting evidence comes from numerous studies linking positive marital functioning to a greater likelihood of a secure parent-child attachment relationship (e.g., Frosch, Mangelsdorf, & McHale, 2000; Owen & Cox, 1997).

Similar patterns may well emerge with respect to the association between the coparental relationship and parent-child relations. McHale (1995) for instance, has argued that coparental processes overlap with both the marital and parent-child relationships. Moreover, Margolin, Gordis, and John (2001) provided support for a model which suggested that coparenting might mediate the relation between marital conflict and parenting. Thus, it is striking that little research has attempted to document associations between coparenting processes and parent-child attachment security. One exception can be found in work by Newland, Coyl, and Freeman (2008) that documented a bivariate association between father-reported coparenting behaviors and fathers' reports of their children's secure-base behavior. Clearly, past theory and limited research suggests multiple pathways by which coparenting could affect the infant-parent attachment relationship.

One possibility is that coparenting directly shapes the child's internal working model of attachment relationships (Talbot & McHale, 2003). Indeed, interparental discord is thought to promote feelings of helplessness and self-blame (Kerig, 1998) that may well be reflected in parent-child attachment relationships or children's representations of those relationships. As such, discord around childrearing issues may be especially likely to affect the child's attachment system (Gable et al., 1992), whereas support and harmony between parents may promote a greater sense of security in infant-parent attachment relationships.

Coparenting could also affect attachment via its influence on parenting behavior. Several studies report associations between supportive coparenting and sensitive and responsive parenting among mothers (Caldera & Lindsey, 2006; Floyd et al., 1998; Margolin et al., 2001), as well as associations between marital functioning and fathers' parenting (Belsky, Youngblade, Rovine, & Volling, 1991). Furthermore, one recent study demonstrated that an intervention designed to enhance the coparental relationship was effective in promoting both supportive coparenting and parent-child interaction quality (Feinberg & Kan, 2008).

Parent Gender Differences in the Association between Coparenting and Attachment

Although results have been somewhat inconsistent (see Erel and Burman, 1995), numerous individual studies have shown that the father-child relationship seems to be more affected by the quality of the marital relationship than does the mother-child relationship (Belsky et al., 1991; Frosch et al., 2000; Owen & Cox, 1997; see Cummings, Goeke-Morey, & Raymond, 2004 for a review). It may be that the roles of spouse/partner and parent are more closely tied for fathers than mothers (Belsky et al., 1991; Corwyn & Bradley, 1999). A more general explanation posits that fathers are more vulnerable to external influences (i.e., those factors outside of the father himself) than are mothers (Doherty et al., 1998). This might be because the paternal role is less clearly defined by social conventions than is the role of the mother (Coiro & Emery, 1998; Lamb, 2002). Thus, the father-child attachment relationship may be especially vulnerable to variation in other family characteristics – of which the quality of the coparental relationship may be an important one.

Caldera & Lindsey (2006) were the first to provide a comprehensive examination of the associations between coparenting, infant-mother, and infant-father attachment security. Using parent-reported security scores on the Attachment Q-Sort (AQS; Waters, 1987) in a sample of 11–15-month-old children, this study found that competitive coparenting was related to both mothers' and fathers' perceptions of a less secure attachment relationship with their infant. This groundbreaking work is the most compelling evidence to date of direct links between coparenting and infant-parent attachment security.

The present study expands upon Caldera & Lindsey's work in several ways. Firstly, we adopt a longitudinal design by measuring coparenting at 3.5 months of age and attachment security at approximately one year of age rather than relying on concurrent assessments. Secondly, both maternal and paternal parenting behavior in the dyadic context (rather than just a measure of maternal parenting) are assessed to determine whether effects of coparenting on father-child attachment are independent of the quality of fathering behavior in the dyad. Finally, observational assessments of attachment security using the Strange Situation Procedure (SSP; Ainsworth, Blehar, Waters, & Wall, 1978) are included, rather than relying on parental reports of the AQS. Parental reports on the AQS may be subject to social desirability biases, and a recent meta-analysis calls into question their validity (van Ijzendoorn, Vereijken, Bakermans-Kranenburg, & Riksen-Walraven, 2004). These key changes were employed to provide information on the associations between coparenting and attachment that goes beyond Caldera and Lindsey's important work.

Child Gender

Although Caldera and Lindsey did not report child gender effects, there is some evidence to suggest that coparenting (see McHale, 1995), and perhaps the relations between coparenting and attachment, may differ for boys vs. girls. For instance, McHale, Johnson, and Sinclair (1999) found that the association between family-level dynamics and observed social behavior at preschool was stronger for boys than for girls. In work with older children,

McConnell & Kerig (2002) found that hostile-competitive coparenting was related to a wider range of behavior problems for boys than it was for girls.

Past work suggests that sons might be less “shielded” from marital conflict than daughters (Cummings, Davies, & Simpson, 1994). Heightened exposure to marital and coparental distress may result in “intensified parenting relationships with boys more than with girls” (Margolin et al., 2001, p. 16). Indeed, there is evidence that boys have more difficulty coping with interparental stress than girls (Gordis, Margolin, & John, 1997; Simons, Whitbeck, Beaman, & Conger, 1994; McHale, Freitag, Crouter, & Bartko, 1991). Despite this preliminary evidence, it remains to be seen whether these gender differences extend to supportive coparenting, and whether they hold when considering parent-child attachment security as the developmental outcome.

The Present Study

In sum, the present study draws from both family systems and attachment theoretical perspectives to examine associations between observed and reported coparenting and infant-mother and infant-father attachment. This work was guided by several research questions. First, is observed and/or reported supportive coparenting at 3.5 months of age associated with greater attachment security at one year of age over and above the influence of dyadic parental sensitivity? Second, do the patterns of these associations differ for infant-mother and infant-father attachment relationships? And third, are the associations among coparenting and attachment for mothers and/or fathers moderated by child gender?

Method

Participants

Sixty-eight families (mother, father, and target child) participated in two phases of a longitudinal investigation. All mothers and children participated at both phases, whereas 62 fathers participated at both phases; 6 of the fathers participated at the first but not the second timepoint. Participants were recruited during the third trimester of pregnancy, at which time they provided demographic information. All couples were required to be biological parents of the target child, and married or cohabiting at the time of recruitment as well as during both phases of the project. Couples participated in the first phase of the study when the children were approximately 3.5 months old and the second phase when children were approximately 12 months old.

All families in the study delivered healthy, full-term infants (33 female and 35 male). At the time of recruitment, mothers' ages ranged from 22 to 41 years ($M = 29.24$; $SD = 4.46$) and fathers' ages ranged from 22 to 64 years ($M = 31.89$; $SD = 6.80$). Approximately 82% of mothers were European-American, 6% were Latina, 6% were African-American, 4% were Asian-American, and 2% were of mixed ethnicity. Approximately 77% of fathers were European-American, 8% were Latino, 9% were African-American, 3% were Asian-American, and 3% were of mixed ethnicity. The sample as a whole was highly educated, with approximately 90% of mothers and 79% of fathers having completed at least a

bachelor's degree. The mean income for families was between \$51,000 and \$60,000, with family incomes ranging from \$11,000 - \$20,000 to over \$100,000.

Procedure

Families participated in a home visit when the child was approximately 3.5 months old ($M = 3.68$; $SD = .34$) during which they were videotaped interacting in several different contexts. Mother-child and father-child dyadic interactions were coded for parental sensitivity, and mother-father-child interactions were coded for supportive coparenting. Mothers and fathers also independently completed a questionnaire designed to assess their perceptions of supportive coparenting. Families then visited the laboratory on two occasions when the child was approximately 12 months ($M = 12.22$; $SD = .67$) and 13 months ($M = 13.49$; $SD = .81$) of age to participate in videotaped procedures designed to assess infant-mother and infant-father attachment security, respectively.

Measures: 3.5 month assessment

Parental sensitivity—Mothers and fathers were observed separately with their infants during a 5-minute free play task. Parents were given a set of age-appropriate toys and were instructed to interact with their infants however they normally would. Two raters independently coded mothers' and fathers' sensitivity during these episodes. Sensitivity generally refers to the degree to which parents' responses to the child's cues were well-timed, appropriate, and complete. The sensitivity coding was based on a 5-point Likert scale adapted from work by Ainsworth and colleagues (Ainsworth et al., 1974, 1978) and yielded *maternal sensitivity* ($M = 4.14$; $SD = .56$) and *paternal sensitivity* ($M = 3.88$; $SD = .65$) scores. Gamma coefficients were used to assess inter-rater reliability on a randomly selected subset of 21% of the tapes for both mothers and fathers. Gamma coefficients were used because, like Cohen's kappa, chance agreement is taken into account, yet gamma is more appropriate for use with ordinal rating scale data (e.g., Liebetrau, 1983). Coders demonstrated strong reliability, with gammas of .93 and .88 for mother and fathers, respectively. Interrater agreement within one scale point was 100% for both mothers and fathers.

Observed Supportive Coparenting—Mother-father-child triads were observed in two episodes designed to assess coparenting behavior. First, couples were given an infant jungle gym and were instructed to "play together with your child as you normally would." This episode lasted for 5 minutes and was designed to elicit typical patterns of coparenting behavior in a non-stressful situation. Second, couples were given a "onesie" and were asked to change the infant into this outfit together. This task was designed to assess coparenting behavior during a joint child care task, a situation that is arguably more stressful than triadic free play. These episodes lasted an average of 3.36 minutes (range: 1.40 to 8.03 minutes).

Both family interaction episodes were coded for aspects of supportive coparenting behavior using a subset of scales developed by Cowan and Cowan (1996) that have been utilized in previous work on coparenting (e.g., Schoppe-Sullivan, Mangelsdorf, Brown, & Sokolowski, 2007). Coparenting coding reflected partners' behaviors toward each other in reference to the infant. The dimensions rated were: pleasure (degree to which parents seemed to enjoy

coparenting), warmth (how affectionate and emotionally supportive the partners were of each other), cooperation (extent to which partners helped and supported one another instrumentally in coparenting), and interactiveness (degree to which parents talked and engaged with one another). All dimensions were coded on 5-point Likert scales. Interrater reliability across both family interaction episodes was again assessed using gamma coefficients. Coders overlapped on a randomly selected 23% of the videotapes. Gammas were all in the acceptable range, and varied from .76 to .98 ($M = .92$), and percent agreement within one scale point was 100% for all scales across episodes.

In order to provide the most comprehensive assessment of coparenting, each scale was averaged across free play and clothes-change episodes. Data reduction was then conducted on a conceptual basis by summing all four scales to create a composite *observed supportive coparenting* variable ($M = 13.01$; $SD = 2.52$). Intercorrelations among all scales ranged from .53 – .74 ($M = .65$). A family who was rated high on supportive coparenting was one in which the parents enjoyed watching each other interact with their infant, and showed an affectionate connection as parents that involved appreciating and/or complimenting one another. In a family rated low on supportive coparenting, the parents did not enjoy or appreciate each other's relationship with their infant, lacked connection, and sometimes competed for the child's attention.

Reported Supportive Coparenting—Mothers and Fathers independently completed the Parenting Alliance Inventory (PAI; Abidin & Brunner, 1995) as an assessment of self-reported coparenting support. The PAI assesses parents' beliefs that they have a sound working relationship with their child's other parent (i.e., a high quality "parenting alliance"). This measure has been well-validated and shows convergent validity with assessments of both child and marital adjustment, as well as parental behavior (see Abidin & Brunner, 1995; Bearss & Eyberg, 1998; Floyd et al., 1998). The measure consists of 30 items assessing parents' beliefs about their relationship as parents (i.e., "My child's other parent and I communicate well about our child"). Each parent rated every item on a 5 point Likert scale (1 = *strongly disagree*; 5 = *strongly agree*), and total scores for both mother and father were computed by averaging across all PAI items. Cronbach's alphas were .93 and .94 for mothers and fathers, respectively. In order to capture the most accurate reflection of couples' perceptions, and because mothers' and fathers' scores were significantly correlated ($r = .29$, $p < .05$), the average of mothers' and fathers' PAI scores was used as an index of *reported supportive coparenting* ($M = 4.52$; $SD = .30$) for each family in all analyses.

Measures: 12- and 13-month attachment assessments

At 12 months of age, infants visited the laboratory with their mother only. They were then scheduled for another visit that occurred approximately one month later (13 months; at least three weeks was allotted between all visits to avoid contagion effects) with the father only. At both timepoints, parent-child dyads were videotaped participating in the standard Strange Situation Procedure (SSP; Ainsworth et al., 1978). Briefly, the SSP is a series of brief separations and reunions with the caregiver that also involve the introduction of a stranger. The child's responses to his/her parent (particularly upon reunion) are presumed to reflect the quality of the attachment relationship to that particular caregiver. Two trained raters first

classified infants using the standard 4-category classification system: secure (B), insecure-avoidant (A), insecure-resistant (C), or disorganized (D). Interrater agreement among the coders was good ($K = .87$ and $.90$ for infant-mother and infant-father attachment, respectively). 54.5% of infant-mother and 64.5% of infant-father dyads were classified as secure.

Although attachment research has traditionally relied upon these categorical assessments (or, more commonly, secure vs. insecure dichotomies), analyses involving traditional Strange Situation classifications often lose important variations among the groups and reduce power for detecting significant effects (Cummings, 1990). More recently, Fraley & Spieker (2003) have advocated conceptualizing attachment security as a continuous variable, and even suggested a technique for creating continuous security scores by combining interactive behavior scale scores from classic Strange Situation coding.

Due to the relatively modest sample size in the present study, we chose to compute continuous security scores based on Fraley & Spieker's recommendations. The following 7-point interactive behavior scale scores from both reunion episodes of the SSP were utilized: proximity-seeking (the degree to which the child promptly, actively, and fully seeks to be closer to the caregiver), contact maintenance (the degree to which the child seeks to extend proximity and/or contact with the caregiver), and avoidance (the degree to which the child ignores or actively turns away from his/her caregiver). Based on Fraley & Spieker's (2003) suggestions, composite scores were created by summing total proximity-seeking and total contact maintenance, and subtracting total avoidance (proximity-seeking + contact maintenance – avoidance) during the SSP. This computation yielded a final score for *infant-mother attachment security* ($M = 11.33$; $SD = 8.23$) and *infant-father attachment security* ($M = 13.79$; $SD = 7.95$) for each participant.

Results

Analyses were conducted in several steps. First, a series of bivariate correlations were computed to document the strength of associations between observed and reported supportive coparenting at 3.5 months and infant-mother and infant-father attachment security at one year. Follow-up regression analyses were then conducted to determine whether any such associations remained after controlling for mothers' and fathers' sensitivity in the dyadic context at 3.5 months. Finally, a series of regression analyses examined whether the relations between early coparenting and subsequent attachment were moderated by child gender.

Preliminary Analyses

Correlations among all variables are presented in Table 1. There were several significant inter-correlations among these variables. Notably, at 3.5 months there was a positive association between paternal sensitivity and observed supportive coparenting, but no significant association between maternal sensitivity and observed supportive coparenting. Reported supportive coparenting was also marginally positively correlated with fathers' sensitivity but unrelated to mothers' sensitivity. Observed and reported supportive coparenting were not significantly related. At one year of age, infant-mother and infant-

father attachment security were significantly correlated with one another despite the fact that maternal and paternal sensitivity were not significantly associated at 3.5 months. Additionally, the only association between sensitivity and attachment that approached significance was a marginally significant correlation between 3.5 month paternal sensitivity and 13 month infant-father attachment security.

Associations between 3.5 month coparenting and 1 year attachment security

More relevant to this investigation were the relations between coparenting at 3.5 months and infants' attachment security to mother and father at one year. These correlations are also presented in Table 1. Observed supportive coparenting was positively related to infant-father attachment security, such that families who were more supportive while interacting with their 3.5-month-old had children who later formed more secure relationships with their fathers. Interestingly, there was no significant correlation between observed supportive coparenting and infant-mother attachment security. A similar pattern was present when considering associations between reported supportive coparenting and infant-parent attachment security. That is, there was a marginally significant positive correlation between parents' combined PAI reports at 3.5 months and infant-father attachment security at 13 months but no association between PAI reports and infant-mother attachment security.

Multivariate analyses were next conducted to determine whether the associations between supportive coparenting and infant-father attachment security remained significant after accounting for paternal sensitivity. Two hierarchical linear regression equations were created with 13 month infant-father attachment security as the dependent variable. Paternal sensitivity and supportive coparenting (either observed or reported) were entered into a single block as simultaneous predictors. The overall equation containing paternal sensitivity and observed supportive coparenting explained a significant portion of the variance ($R^2 = .12$, $F = 3.78$, $p < .05$) in infant-father attachment security. Paternal sensitivity was a non-significant predictor ($\beta = .16$, n.s.), but observed supportive coparenting remained a significant predictor of attachment security even after controlling for paternal sensitivity ($\beta = .26$, $p < .05$). The equation containing paternal sensitivity and reported supportive coparenting as predictors of infant-father attachment security was marginally significant ($R^2 = .09$, $F = 2.99$, $p < .06$). However, neither paternal sensitivity ($\beta = .20$, n.s.) nor reported supportive coparenting ($\beta = .20$, n.s.) were significant predictors after controlling for the effects of the other variable.

Moderation Analyses by Child Gender

The next set of analyses explored whether child gender moderated associations between supportive coparenting and infant-parent attachment security. A series of hierarchical regression analyses was conducted on the dependent variables of infant-mother and infant-father attachment security. Interaction terms were computed by calculating the product of each supportive coparenting variable (centered to reduce multicollinearity) and child gender (coded as a dummy variable). Separate regression equations were created to test the degree to which observed and reported coparenting x child gender interaction variables were each predictive of both infant-mother and infant-father attachment security.

The first step in each equation included child gender and supportive coparenting (either observed or reported) entered separately. The interaction term was entered on the second (and final) step of each regression. At each step, the significant change in R^2 was assessed to determine the contribution of each block of variables. Interaction terms were further probed using post-hoc plotting procedures outlined by Aiken and West (1991) if the term added a significant increment to the variance accounted for by the total equation.

There was one coparenting x gender interaction term that significantly predicted infant-mother attachment security. Specifically, the interaction between child gender and observed supportive coparenting significantly predicted attachment security with mother (see Table 2), suggesting the moderating role of child gender in the association between observed supportive coparenting and infant-mother attachment security. Follow-up analyses indicated that observed supportive coparenting was positively related to infant-mother attachment security among families with boys ($r = .33, p < .05$) but unrelated to infant-mother attachment security among families with girls ($r = -.20, n.s.$) (see Figure 1).

Similarly, one coparenting x gender interaction was a significant predictor of infant-father attachment security. The interaction between child gender and reported supportive coparenting explained a unique portion of the variance in infant-father attachment security (see Table 3). Post-hoc probing of this effect also revealed that reported supportive coparenting was associated with greater levels of infant-father attachment security in families with boys ($r = .49, p < .01$) but unrelated to infant-father attachment security in families with girls ($r = .00, n.s.$) (see Figure 2).

Discussion

Results suggest that children from families exhibiting higher levels of supportive coparenting in early infancy were more likely to be securely attached to their father at 13 months of age. Moreover, child gender moderated the association between coparenting and children's attachment relationships with both parents. Findings highlight the utility of examining triadic and family-level correlates of parent-child attachment relationships, and the need to consider distinctions among these relationships as a function of both parent and child gender.

The link between supportive coparenting and higher quality infant-father relationships suggests that family functioning beyond the father-child dyad may be partially responsible for the development of that particular relationship. Importantly, this seemed to hold true even after accounting for the contribution of dyadic paternal sensitivity, although this effect is more clear for observed than reported supportive coparenting. In general, the search for determinants of attachment security may need to extend beyond sensitivity. It may well be the case that "sensitive coparenting goes beyond good parenting" (Margolin et al., 2001, p. 5). That is, the degree to which the child becomes securely attached to his/her father depends on the ability of the mother and father to effectively cooperate, coordinate, and support one another's parenting practices.

There are multiple pathways through which coparental functioning may infiltrate the father-child dyad. It is possible that witnessing supportive behavior amongst one's parents directly influences the child's emotional security (Davies & Cummings, 1994), and that this linkage is not in fact mediated through parenting (e.g., Owen & Cox, 1997). Observing the supportive interactions of one's parents may help to promote those parents as trustworthy figures that can be used as sources of security in times of distress.

However, this explanation does not necessarily account for differences between mothers and fathers documented in this study. Our results support Caldera and Lindsey's (2006) work in some ways, by documenting direct associations between coparenting and attachment. They also differ in some ways, in that the present findings seem to suggest a considerably stronger gender difference in the strength of association between supportive coparenting and attachment security for fathers vs. mothers.

One possible explanation for this parent gender difference is that coparenting is simply an effective proxy for the quality of fathers' everyday parenting. Although paternal sensitivity was not associated with significantly greater attachment security in this study, there was a stronger association between coparenting and sensitivity for fathers than for mothers. Perhaps when mother-father dyads are more harmonious in interacting with their child, fathers engage in more security-promoting behaviors with their children in other contexts. Similarly, fathers' behavior in the triadic context may be more susceptible to the influence of coparental dynamics. One recent investigation reported that in the context of coparenting mutuality, fathers expressed more positive behaviors toward their child than did mothers (Gordon & Feldman, 2008). It may be that supportive coparenting is more likely to affect fathering in the triadic context, which is subsequently reflected in more secure infant-father attachment relationships.

This could be especially true for fathers given that they typically spend less time with their children than do mothers (e.g., Yeung, Sandberg, Davis-Kean, & Hofferth, 2001). Mothers' continued status as the primary caregiver in most families may mean that fathers spend less time interacting alone with their children, thus heightening the importance of triadic functioning (or fathers' behavior during triadic interactions) for the development of the father-child attachment relationship. Future research should continue to examine whether any such discrepancy might contribute to the relatively greater salience of supportive coparenting for the infant-father dyad.

A more process-oriented interpretation would argue that the dynamics of the interparental relationship might be responsible for dictating levels of father involvement. Fathers in more satisfying marriages are more likely to spend greater quantities of time with their children (e.g., Lee & Doherty, 2007). Additionally, fathers experiencing marital distress show a tendency to withdraw from their children (see Cummings et al., 2004), which may in turn foster less secure father-child relationships. Recent work extended these findings by noting that fathers' (but not mothers') withdrawal during a coparenting negotiation task was related to greater disengagement during a triadic play session with their infants (Ellston, McHale, Talbot, Parmley, & Kuersten-Hogan, 2008). Taken together, these findings suggest that fathers might be more likely than mothers to withdraw from interactions with their children

when faced with marital or coparental distress. It seems plausible, therefore, that a supportive parenting partnership might elevate the quantity and/or quality of fathers' interactions with their infants.

The notion of "maternal gatekeeping" (e.g., Allen & Hawkins, 1999) may also help to explain why triadic family functioning was more closely related to dyadic parenting for fathers than mothers. The gatekeeping construct suggests that many fathers require the support of mothers in defining their parenting roles. As such, fathers may seek out parenting guidance from their partners in a way that mothers do not. Indeed, the degree to which mothers facilitate (or impede) their partners' parenting efforts is related to fathers' interactions with their young children (e.g., Schoppe-Sullivan, Brown, Cannon, Mangelsdorf, & Sokolowski, 2008). It might be that lessons learned from mothers in the triadic context play a role in dictating fathers' subsequent parenting strategies. Support and cooperation in the coparental relationship may well carry over into father-child interaction, particularly as fathers learn and define their parenting role during the child's first year.

The present study also found stronger associations between supportive coparenting and attachment security for boys than for girls. Indeed, in families with boys greater infant-parent attachment security was related to earlier supportive coparenting for mothers (observed) and fathers (reported). In families with girls, there was no link between supportive coparenting and children's security to mother or father. This finding may be an extension of past work indicating that boys are more susceptible to interparental discord than girls (Gordis et al., 1997; Simons et al., 1994; McHale et al., 1991). In the present study, coparental support (rather than marital conflict) was related not to intra-personal psychosocial outcomes within the child, but rather to the quality of the infant's attachment relationship with both caregivers.

Additionally, there is evidence that fathers are generally more involved with sons than with daughters (e.g., Harris & Morgan, 1991; Marsiglio, 1991). Perhaps the child gender differences documented here are simply a case of boys receiving more coparenting than girls, such that the impact of individual differences in coparenting support might be exaggerated among families with boys. Regardless, results support the notion that coparental processes and the correlates of the coparental relationship may differ as a function of child gender (e.g., McHale, 1995), and that work on both coparenting and attachment should continue to consider unique developmental trajectories based on both parent and child gender (see Schoppe-Sullivan et al., 2006).

Limitations and Future Directions

The present study provides some notable improvements over past work linking coparenting and parent-child attachment relationships. These include the use of a longitudinal design, observational assessments of attachment security, the inclusion of both mothers' and fathers' dyadic parenting as covariates, and a detailed consideration of child gender. Nonetheless, this work is still quite limited in a number of ways. One limitation concerns the utility of the parental sensitivity measures employed in this investigation, and the lack of associations between sensitivity and attachment – particularly for mothers. These observational assessments were limited in both scope and duration such that they may not exhaustively

capture the realm of parenting behaviors that contribute to attachment security. For instance, a longer assessment of parenting behavior in a stressful context might more accurately tap into parental sensitivity than the relatively short, low-stress, free-play episode employed in this study. Additionally, it may be that physically stimulating play is particularly important for the father-child attachment relationship, and may well mediate the link between coparenting and attachment security (e.g., Newland et al., 2008). Furthermore, sensitivity assessments at only 3.5 months of age may be too early to tap into stable patterns of parenting behavior, especially given that attachment relationships are thought to solidify during the second half of the first year of life (e.g., Ainsworth et al., 1978).

Furthermore, the focus of this investigation was solely on supportive coparenting. The patterns of association reported here might differ when considering more negative aspects of the coparental relationship such as undermining or hostile-competitive characteristics. In addition, future work should attempt to clarify why patterns differed based on observed vs. parent-reported coparenting. Indeed, observed and reported coparenting were only modestly related in this investigation, suggesting that these measures might assess different aspects of the coparental relationship. Efforts to understand the full meaning of those coparenting assessments, and the degree to which they might affect parent-child relationship functioning, would be beneficial to the field as a whole.

Finally, the findings reported here may very well differ as a function of other demographic or socio-contextual characteristics that have a potent impact on family life. A future examination of the relations between coparenting and parent-child attachment security among various racial or ethnic groups may be of particular interest. Research on attachment and coparental relationships should continue to explore the development of these relationships across the lifecourse in larger and more diverse samples.

Despite these limitations, this investigation advances knowledge on the relations between supportive coparenting and both infant-mother and infant-father attachment relationships. In doing so, it sheds some preliminary light on the associations between triadic and dyadic levels of family functioning. This work suggests the utility of integrating family systems and attachment theories in developmental research generally, and in fatherhood research in particular. Future work should continue examining the underlying mechanisms and processes that might be responsible for these findings. Those efforts may well prove fruitful for both researchers and practitioners that share the goal of better understanding the developmental course of coparental and father-child relationships.

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Figure 1.
Association between observed supportive coparenting and infant-mother attachment security as a function of child gender.

Figure 2. Association between reported supportive coparenting and infant-father attachment security as a function of child gender.

Table 1

Correlations among all study variables.

Variables	1	2	3	4	5
<i>3.5 Months</i>					
1. Maternal Sensitivity	-				
2. Paternal Sensitivity	.07	-			
3. Observed Supportive Coparenting	.08	.25*	-		
4. Reported Supportive Coparenting	.16	.20 [†]	.11	-	
<i>12/13 months</i>					
5. Infant-Mother Attachment Security	-.07	.08	.09	.04	-
6. Infant-Father Attachment Security	.04	.24 [†]	.31*	.23 [†]	.42

[†] $p < .10$ * $p < .05$

Table 2

Regression analysis predicting infant-mother attachment security

Independent Variable	<i>B</i>	<i>SE B</i>	β	<i>R</i> ²	<i>F</i> Change
Infant-Mother Attachment Security					
Step 1					
Child Gender	−1.47	2.02	−.09		
Observed Supportive Coparenting	−.07	.13	.08	.02	.51
Step 2					
Child Gender	−2.01	1.98	−.12		
Observed Supportive Coparenting	.98	.52	.30 [†]		
Child Gender X Observed Supportive Coparenting	−1.72	.80	−.34 [*]	.07 [*]	4.68 [*]

[†] $p < .10$ ^{*} $p < .05$

Table 3

Regression analysis predicting infant-father attachment security

Independent Variable	<i>B</i>	<i>SE B</i>	β	<i>R</i> ²	<i>F</i> Change
Infant-Father Attachment Security					
Step 1					
Child Gender	-.16	2.03	-.01		
Reported Supportive Coparenting	5.98	3.31	.23 [†]	.05	1.63
Step 2					
Child Gender	-.18	1.98	-.01		
Reported Supportive Coparenting	12.70	4.72	.49**		
Child Gender X Reported Supportive Coparenting	-12.67	6.48	-.36*	.06*	3.83*

[†] $p < .10$ * $p < .05$ ** $p < .01$