Published in final edited form as:
Child Dev. 2007 ; 78(5): 1407–1425. doi:10.1111/j.1467-8624.2007.01074.x.

Mother- and Father-Reported Reactions to Children's Negative Emotions: Relations to Young Children's Emotional Understanding and Friendship Quality

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Abstract

Mother- and father-reported reactions to children's negative emotions were examined as correlates of emotional understanding (Study 1, $N = 55$, 5- to 6-year-olds) and friendship quality (Study 2, $N = 49$, 3- to 5-year-olds). Mothers' and fathers' supportive reactions together contributed to greater child-friend coordinated play during a sharing task. Further, when one parent reported low support, greater support by the other parent was related to better understanding of emotions and less intense conflict with friends (for boys only). When one parent reported high support, however, greater support by the other parent was associated with less optimal functioning on these outcomes. Results partially support the notion that children benefit when parents differ in their reactions to children's emotions.

How parents respond to their children's emotional displays, especially those involving negative affect, has important implications for children's socioemotional functioning (Dunsmore & Halberstadt, 1997; Eisenberg, Cumberland, & Spinrad, 1998; Gottman, Katz & Hooven, 1996; Parke, 1994). Parental reactions that are punitive or dismissing may impede children's ability to regulate physiological arousal (Gottman et al., 1996; Eisenberg, Fabes, & Murphy, 1996) and process information about emotional events (Gottman et al., 1996; Hoffman, 1983), and may also lead children to view emotions as threatening, avoid emotionally challenging situations, and ultimately miss opportunities to learn about and cope with negative emotions (Eisenberg et al., 1998). In contrast, parental responses to children's negative emotions that provide instrumental (e.g., problem-solving) or emotional (e.g., comforting) support are hypothesized to foster social and emotional competence through the child's openness to explore emotional events and meanings, the ability to regulate arousal, and focus and shift attention to emotional stimuli in appropriate ways (Eisenberg et al., 1998; Gottman et al., 1996).

Studies of parental reactions to children's emotions have typically been conducted with mothers only, despite calls for greater attention to the larger family system (Cowan, 1996; Parke & McDowell, 1998) and suggestions in the literature that fathers may play a unique role in children's socioemotional development (Parke, 1994; Roberts & Strayer, 1987; Rohner &

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Veneziano, 2001; Volling, McElwain, Notaro, & Herrera, 2002). When studies have included fathers, associations between parental reactions and child outcomes have been examined separately for mothers and fathers (Denham & Kochanoff, 2002; Eisenberg et al., 1996; McDowell, Kim, O'Neil, & Parke, 2002; Roberts & Strayer, 1987; Roberts, 1999), or mothers' and fathers' scores have been summed to create a composite of parental emotion socialization (Denham, Mitchell-Copeland, Strandberg, Auerbach, & Blair, 1997; Gottman et al., 1996). Although inclusion of both parents is an important contribution of these studies, little is known about the unique and joint contributions of mothers' and fathers' emotion socialization to children's social and emotional competence.

Parke and Buriel (1998) note, "…families are best viewed as social systems. Consequently, to understand the behavior of one member of the family, the complementary behaviors of other members also need to be assessed" (p. 465). When viewing emotion socialization from a systems perspective, therefore, maternal reactions to children's emotions should be examined in tandem with reactions by other caregivers. For instance, one parent's supportive response to his/her child's distress may have different implications for the child's emotional understanding depending on whether the other parent shows a similar or dissimilar reaction. Adopting a systems view of emotion socialization appears especially fruitful, given that *within families* mothers and fathers may react to their children's negative emotions in different ways (e.g., Eisenberg et al., 1996). Thus, in the current report, we aimed to assess the unique and joint contributions of mother- and father-reported reactions to children's negative emotions to children's emotional understanding (Study 1) and friendship quality (Study 2).

Three models were considered. First, an *additive* model posits that the contributions of mothers' and fathers' emotion socialization practices to child outcomes are cumulative across parents. Based on this model, we would expect that more supportive reactions reported by both parents would be related to more optimal child outcomes, whereas harsher reactions reported by both parents would be related to more problematic functioning. Consistent with this model, Denham et al. (1997) reported that parents' negative reinforcement of negative emotions (mothers' and fathers' scores summed) was related to preschool children's lower understanding of emotions. Likewise, Gottman et al. (1996) found that a mother-father composite score of emotion-coaching (which involved both instrumental and emotional support toward the child's distress) was related to lower levels of derogatory parenting, which, in turn, was associated with less aggressive peer interactions.

A second model involves a *buffering* hypothesis. A buffer refers to a factor that reduces the likelihood of a negative outcome in the context of risk (Cowan, Cowan, & Schulz, 1996). Applying this notion to emotion socialization, low parental support or high parental harshness toward children's expression of negative emotions may be considered a risk factor. In this light, a buffering hypothesis would posit, for example, that greater support reported by one parent in the context of low support reported by the other parent would be related to child functioning that approaches or equals the more optimal functioning exhibited when both parents report high support (Cowan, 1996). Although we are unaware of previous work that has examined a buffering hypothesis with respect to parental emotion socialization, research has shown that a positive father-child relationship may minimize or buffer the potentially negative effects of a poorly functioning mother-child relationship (e.g., Hetherington, 1979; Field, 1995).

Third, a *divergence* model indicates that children may benefit when parents differ in their emotion-related behavior or reactions. Tomkins (1963) has suggested that when mothers and fathers differ in their reactions to children's distress, positive consequences may include "an enduring sensitivity to clashes of personalities and to the difficulties of communication, and an interest in promoting communication and resolving social conflict" (p. 115). Similarly, Dunsmore and Halberstadt (1997) proposed that between-parent differences in emotional

expressiveness may aid children in developing more complex schemas about emotions. When parents report differing levels of support (or non-support) toward negative emotions, children may achieve greater awareness of emotions and engage in more effortful processing of emotional information. A corollary of the divergence model is that children would show lower competence when both parents report high levels of supportive reactions. Tentative evidence for such a model has been found, such that high levels of supportive emotion socialization (mothers' and fathers' scores combined) have been related to children's lower social-emotional functioning (Denham et al., 1997; Gottman et al., 1996; Roberts & Strayer, 1987).

Figure 1 shows the hypothesized results for each model. The three models are similar in that child competence is low when both parents report low support, and greater support reported by one parent is related to increased competence when the other parent's support is low. The models differ such that in the context of high support reported by one parent, greater support reported by the other parent is related to an *increase* in child competence in the additive model and a *decrease* in child competence in the divergence model, and bears no relation to child competence in the buffering model. Moreover, in the divergence model, child competence is low when *both* parents report high support, whereas in the buffering model, child competence is high when one parent reports high support, regardless of the other parent's support.

In sum, our primary objective was to assess the unique and joint contributions of mother- and father-reported emotion socialization to young children's emotional understanding in Study 1 and friendship quality in Study 2. Although the current investigation posits a direction of effects from parent to child, we included child age and gender in the main analyses to control for the possibility that associations between parental socialization of emotion and child outcomes were accounted for by these child characteristics. Moreover, because previously reported associations between parental emotion socialization and children's social-emotional competence have varied to some extent by child gender (e.g., Eisenberg et al., 1996, 1999; Denham, Zoller, & Couchoud, 1994; Denham et al. 1997), we explored child gender as a moderator. Yet, given mixed findings (e.g., Denham et al. 1997, reported associations for girls; Eisenberg et al., 1999, reported associations for boys), no specific hypotheses were tested with respect to gender.

Study 1

Emotional understanding is a key component of emotional competence (Denham et al., 2003; Halberstadt, Denham, & Dunsmore, 2001; Saarni, 1999). During the preschool and early school years, children begin to understand emotions in the context of a belief-desire framework (e.g., Harris, Johnson, Hutton, Andrews, & Cooke, 1989; Wellman, 1990). That is, children move beyond a strictly situational interpretation of emotions and begin to understand that emotional reactions are subjective and often depend on the individual's appraisals of the situation (e.g., the beliefs, desires and intentions that the individual brings to the situation). The child's mentalistic view of emotions is posited to underlie key developments in emotional understanding during the preschool and school years (see Banerjee, 1997; Saarni, 1999), including an understanding that different individuals may have different emotional reactions to the same situation, predicting an individual's emotional reaction based on his/her beliefs (even if those beliefs are mistaken), understanding mixed emotions, and distinguishing between real and apparent emotions (i.e., internal experience versus external display of emotion).

Parental reactions to children's emotional displays may play an important role in children's understanding of emotions. Preschool-aged children demonstrated greater emotional understanding when mothers' reactions to their children's affective displays were more supportive and positive (Denham et al., 1994; Fabes, Poulin, Eisenberg, & Madden-Derdich, 2002) and less discouraging or negative (Denham et al., 1994; Garner, Jones, & Miner,

1994). Of the few studies to include both mothers and fathers, Denham et al. (1997) reported that children showed lower emotional understanding when mothers and fathers together exhibited greater negative reinforcement of negative emotions. Additionally, Denham and Kochanoff (2002) examined mothers' and fathers' emotion socialization practices in separate regression analyses predicting children's emotional understanding, and found that, in comparison to mothers, findings for fathers' emotion socialization were weak and somewhat counterintuitive.

In Study 1, we aimed to extend this past work by investigating the extent to which mother- and father-reported reactions to children's negative emotions made unique and joint contributions to 5- and 6-year-old children's emotional understanding. This examination was guided by the three models (additive, buffering, and divergence). In assessing emotional understanding, we considered children's understanding of belief-based emotions and mixed emotions, as previous research suggests both aspects of emotional understanding emerge during the early school years (e.g., Brown & Dunn, 1996; Harris, et al., 1989; Harter & Buddin, 1987; Hughes & Dunn, 1998). Because the assessments of emotional understanding involved children's ability to process verbal information, children's receptive language ability was examined as a potential covariate.

Method

Participants

Seventy children participated in Study 1 and were recruited via letters sent home from elementary public schools in a mid-sized southeastern city. Data from 55 families in which both mothers and fathers had completed emotion socialization questionnaires were examined. On average, children (24 girls, 31 boys) were 69 months of age (range = 60 to 79). Fifty-three percent of the children were firstborn, 36% were second-born, and 11% were third- or fourth-born. Included were 4 African-American, 2 Asian-American, 40 European-American, 1 Hispanic-American, and 8 interracial families. Fathers averaged 40 years of age and 16.9 years of education, and mothers averaged 38 years of age and 16.8 years of education. The median family income was $91,000. When compared on the above demographic characteristics, the 55 families examined here did not differ from the 15 families excluded due to missing data.

Procedure

Children were interviewed by a female research assistant during a one-hour visit to the university laboratory. Interview tasks were presented in a fixed order and included assessments of emotion false-belief understanding, mixed-emotion understanding, and receptive language ability. Children's responses to the emotion understanding tasks were recorded verbatim. Mothers and fathers completed separate questionnaire packets assessing emotions in the family. Included in these packets was the Coping with Children's Negative Emotions Scale.

Child Interview Measures

Emotion false-belief task—Children were presented with two trials of a modified “Sally-Ann” false belief task (Baron-Cohen, Leslie, & Frith, 1985). In each trial, the child was told a story in which Sally puts a toy in one location and leaves. Ann then moves the toy to a second location. Sally returns to the scene and children were asked five questions: (1) “Where will Sally look for the (toy)?” (2) “Where is the (toy) really?” (3) “Where was the (toy) at the beginning of the story?” (4) “How did Sally feel before she looked for the (toy), happy or sad?” and (5) “How will Sally feel after she looks for the (toy), happy or sad?”

The first question assessed children's understanding of false belief, with a correct response indicating that Sally would look for the toy in the first location. The second and third questions

acted as controls. The fourth and fifth questions were based on work by Harris et al. (1989) and assessed children's understanding that an individual's emotions are related to his/her beliefs. Children who understood emotions in the context of a false belief would respond that Sally would feel happy *before* she looked for the toy (because she believed she knew the location of the toy) and sad *after* she looked for the toy (because she did not find the toy where she had thought it would be). Children were told two versions of the story with different toys and different beginning and ending locations. The toys (ball and eraser) and locations (box, bucket, and bag) were randomly assigned across trials. In questions 4 and 5, the order of the two emotion choices (i.e., happy or sad) was counterbalanced across participants.

For each trial, children received 1 point for a correct response to the false belief question, given correct responses on both control questions. Children received an additional point per trial for correct responses to the two emotion questions, given a correct response on the false belief question. Correct responses to both emotion questions in a given trial were required, as this provides a more stringent estimate of children's understanding (i.e., that Sally's emotion will change as a function of her false belief about the location of the toy). Within trials 1 and 2 respectively, 34% and 26% of children received a score of 0, 40% and 38% received a score of 1, and 26% and 36% received a score of 2. Scores were summed across the two trials, with a possible range from 0 to 4. Hughes et al. (2000) reported fair to moderate test-retest reliability for this task over a 4-week period. Additionally, Hughes and Dunn (1998) reported moderate-to-strong concurrent and longitudinal associations between preschoolers' performance on this task and other emotional understanding tasks (e.g., affective perspective-taking). Because the emotion false-belief task assesses both understanding of false belief and emotional reactions based on a false belief, Hughes and Dunn (1998) also examined whether preschool-aged children's performance on this task correlated more strongly with aggregate scores of theory-of-mind vs. emotional understanding. No significant differences in the strength of the correlations were found among 4- and 5-year-olds. We utilize the label “emotion false-belief understanding” to underscore that this task is measuring children's understanding of belief-based emotions.

Understanding of mixed emotions—A story task based on work by Gordis, Rosen, and Grand (1989) was used to assess understanding of mixed emotions. Children were told six stories in which a protagonist could feel two emotions of opposite valence (e.g., receiving a present, but having to wait to open it). In a first set of three stories, children were told that the protagonist experienced two conflicting emotions and were asked to explain why the protagonist felt both emotions (Explain Only condition). If the child provided an explanation for only one emotion, a standard probe was used to elicit an explanation for the second emotion. In a second set of three stories, the protagonist's emotions were not named, and the child was asked how the protagonist felt and why (Detect/Explain condition). If the child named only one emotion, standard probes were used to elicit a second emotion and explanation.

For each story, children received 1 point for explaining one emotion (e.g., “Mad because he wanted to open the present”) and 2 points for explaining two emotions of the opposite valence (e.g., “Happy because he likes to get presents, but mad because he can't open it”). Children did not receive credit for explanations that simply repeated the story situation such that that the causal link between the situation and emotion was unclear. Scores were summed across the 6 stories, with a possible range from 0 to 12. Two coders scored children's responses, and 25% of the protocols were double-coded to assess intercoder reliability. Agreement between coders was 90% (kappa = .80). Children's understanding of mixed emotions as assessed in this task at age six has been related longitudinally to understanding of emotions at age three and concurrently to more negative and positive perceptions of kindergarten (Brown & Dunn, 1996). Additionally, although more sophisticated understanding of mixed emotions does not appear until later in middle childhood (Harter & Buddin, 1987), Brown and Dunn (1996)

reported wide variability in 6-year-olds' ability to detect and explain mixed emotions as assessed via this task.

Receptive language—The Peabody Picture Vocabulary Test-Revised (PPVT-R; Dunn & Dunn, 1981) was used to assess children's receptive language ability. The PPVT-R has well-established reliability and validity, and has been standardized on a nationally representative sample of children (Dunn & Dunn, 1981). Standardized scores (by age) were utilized.

Parental Reports of Reactions to Negative Emotions

Mothers and fathers completed the Coping with Children's Negative Emotions Scale (CCNES, Fabes, Eisenberg, & Bernzweig, 1990). Parents rated how they would respond to their child's negative affect in 12 hypothetical situations using a 7-point scale, ranging from 1(*very unlikely*) to 7(*very likely*). For each situation, parents rated the likelihood of their responding in six different ways. Given our focus on supportive and non-supportive emotion socialization practices, four subscales were examined: (a) *problem-focused coping* (e.g., "help my child think about places he/she hasn't looked yet," $\alpha = .74$ for both mothers' and fathers' reports), (b) *emotion-focused coping* (e.g., "soothe my child and do something fun with him/her to make him/her feel better," $\alpha = .73$ and .79, mothers and fathers respectively), (c) *punitive reactions* (e.g., "send my child to his/her room to cool off," $\alpha = .64$ and .86), and (d) *minimization reactions* (e.g., "tell my child that he/she is over-reacting," $\alpha = .72$ and .86). Subscales were created by averaging ratings (with reverse scoring as appropriate) across the 12 vignettes.

The punitive and minimization subscales were correlated for mothers ($r = .59$, $p < .001$) and fathers ($r = .80$, $p < .001$), and were averaged within parent to form composites of *non-supportive reactions*. The emotion-focused and problem-focused subscales were also correlated for mothers ($r = .49$, $p < .001$) and fathers ($r = .56$, $p < .001$), and were averaged to form composites of *supportive reactions*. These composites were consistent with a validation study in which a principal components factor analysis of the 6 subscales yielded a four-factor solution; punitive and minimization reactions loaded on the first factor, and problem-focused and emotion-focused coping loaded on the second factor (Fabes et al., 2002). Evaluation of the CCNES has revealed good internal consistency and high test-retest reliability over a 4-month period (Fabes et al., 2002), as well as considerable stability over a 6-year period (Eisenberg et al., 1999). The subscales of the CCNES have also shown expected patterns of associations with measures of parental perspective-taking, empathic concern, and control (Fabes et al., 2002), and children's social-emotional competence (e.g., Eisenberg et al., 1996; 1999; Fabes, Leonard, Kupanoff, & Martin, 2001) and emotional understanding (Fabes et al., 2002).

Results

Preliminary analyses assessed children's receptive language ability, parental education, and family income as potential covariates. All associations were non-significant and these variables were not considered further. For descriptive purposes, correlations among the study measures are presented in the top portion of Table 1. Means and standard deviations for the study measures are reported by child gender in the bottom portion of Table 1. To examine whether parent-reported supportive or non-supportive reactions differed by parent or child gender, 2 (parent) × 2(child gender) repeated measures ANOVAs were conducted, with parent as the repeated factor. Significant main effects of parent indicated that mothers reported more support ($M = 5.65$, $SD = .60$), $F(1, 53) = 9.27$, $p < .01$, and less non-support ($M = 2.27$, $SD = .60$), $F(1, 53) = 10.53$, $p < .01$, than did fathers ($M = 5.34$, $SD = .64$, support; $M = 2.67$, $SD = .89$, non-support). Despite these differences, both mothers and fathers, on average, reported

relatively high degrees of supportive reactions and low degrees of non-supportive reactions. Main effects for child gender and the parent × child gender interactions were non-significant. Furthermore, *t*-tests indicated that children's emotional understanding did not differ significantly by gender.

Parent-Reported Supportive Reactions as Predictors of Children's Emotional Understanding

To investigate the extent to which mother- and father-reported supportive reactions made unique and joint contributions to children's emotional understanding, and to explore whether child gender moderated these associations, two hierarchical multiple regression analyses were conducted with mixed-emotion and emotion false-belief understanding as the dependent variables, respectively. Child age and gender were entered in step 1, mother- and father-reported supportive reactions were entered in step 2, and the 2-way interaction terms (mother × father, mother × child gender, father × child gender) were entered in step 3. Finally, a 3-way interaction term (mother × father × child gender) entered in step 4 was non-significant for both outcomes and is not discussed below. To minimize multicollinearity among the main effect and interaction terms (Aiken & West, 1991), scores for parent-reported support were centered (i.e., raw score minus the mean). Child gender was treated as a dummy variable and did not require centering.

Emotion false-belief understanding (EFBU)—As shown in Table 2, child age and gender accounted for 10% of the variance in EFBU, $F(2, 52) = 3.02$, $p < .06$, and child age made a unique contribution, such that older children demonstrated better EFBU. In step 2, mother- and father-reported support together accounted for an additional 13% of the variance, $\Delta F(2, 50) = 4.26$, $p < .05$, but only father-reported support made a unique contribution: children whose fathers reported greater support demonstrated greater EFBU. This association was qualified, however, by a significant mother × father interaction in step 3, $\Delta F(3, 47) = 2.79$, $p = .05$. To ease interpretation of the interaction, we plotted the slope for the association between father-reported support and EFBU at low (1 *SD* below *M*), moderate (*M*), and high (1 *SD* above *M*) levels of maternal support (Aiken & West, 1991). Moreover, simple slope analyses were conducted to determine whether a given slope significantly differed from 0. As shown in Figure 2a, father-reported support was significantly associated with greater EFBU when maternal support was low ($\beta = .54$, $p < .01$) or moderate ($\beta = .42$, $p < .01$), but this association was non-significant when maternal support was high ($\beta = .06$, *ns*). A complementary pattern obtained when the association between mother-reported support and EFBU was examined at different levels of paternal support (see Figure 2b): mother-reported support was significantly associated with lower EFBU when paternal support was high ($\beta = -.49$, $p < .05$), but this association was non-significant when paternal support was low ($\beta = .16$, *ns*) or moderate ($\beta = -.13$, *ns*).

Mixed-emotion understanding (MXEU)—Child age and gender accounted for 17% of the variance in MXEU, $F(2, 52) = 5.39$, $p < .01$, and child age made a unique contribution such that older children demonstrated greater MXEU (see Table 2). Mother- and father-reported support entered in step 2 were non-significant, yet the mother × father interaction in step 3 made a unique contribution (see Table 2). In interpreting this interaction, the slope for the association between father support and MXEU was plotted at low, moderate, and high levels of maternal support. As shown in Figure 3a, greater father-reported support was related to lower MXEU when maternal support was high ($\beta = -.39$, $p < .05$) and higher MXEU when maternal support was low, although this slope was non-significant ($\beta = .20$, *ns*). The association between father-reported support and MXEU was weak and non-significant at moderate levels of maternal support ($\beta = -.03$, *ns*). The same pattern obtained when mother-reported support was examined at high ($\beta = -.43$, $p < .05$), moderate ($\beta = -.13$, *ns*), and low ($\beta = .16$, *ns*) paternal support (see Figure 3b).

Parent-Reported Non-Supportive Reactions as Predictors of Emotional Understanding

Hierarchical multiple regression analyses were conducted to assess the contributions of parent-reported non-supportive reactions to children's emotional understanding. Child age and gender were entered in step 1 and accounted for a significant proportion of variance in both outcomes (see Steps 1 in Table 2 for identical results). Maternal and paternal non-supportive reactions (centered scores) entered in step 2, the 2-way interaction terms entered in step 3, and the 3-way interaction term entered in step 4 did not significantly contribute to the prediction of emotion false-belief or mixed-emotion understanding.

Summary

Study 1 results suggest that parent-reported *supportive* but not *non-supportive* reactions were related to children's emotional understanding, above and beyond child age and gender. For both outcomes, a mother × father interaction characterized by a crossover effect emerged and indicated evidence for a divergence model of mother-father emotion socialization. Notably, for emotion false-belief understanding, the pattern of the slopes differed by gender of the parent, whereas the pattern of the slopes was similar across mothers and fathers for mixed-emotion understanding.

Study 2

Children's emotional and social competencies are intimately linked, and how children understand emotions has implications for successful navigation of social interactions with peers (Denham et al., 2003; Halberstadt et al., 2001; Hubbard & Coie, 1994; Saarni, 1999). Dunn and Brown (1994) have suggested that children's interactions with friends, especially the quality of their social play and management of conflict, may capture children's social understanding “in action.” It follows that parental reactions to their children's emotions have implications not only for children's emotional understanding, but also for their ability to apply such understanding to social interactions. In Study 2, therefore, we assessed whether associations between parent-reported emotion socialization practices and children's friendship competence paralleled the associations found for emotional understanding in Study 1.

Among studies of preschool- and school-aged children, parents (primarily mothers) who displayed or reported fewer non-supportive reactions and more supportive reactions toward their children's emotions tended to have children who were more socially competent and popular with peers (Denham & Grout, 1993; Eisenberg, Fabes, Carlo, & Karbon, 1992; Eisenberg et al., 1996; Fabes et al., 2001). When studies have included both mothers and fathers, findings appear mixed. Children exhibited less social competence and peer popularity when fathers engaged in more punitive or minimizing reactions (Carson & Parke, 1996; Eisenberg et al., 1996) and were less encouraging of their preschool children's emotional expressions (Roberts & Strayer, 1987). Yet, supportive reactions by fathers have also been related to more negative peer outcomes, especially for girls (Eisenberg et al., 1996). Finally, whereas Denham et al. (1997) found few significant associations between mother-father composites of parental reactions and children's social competence, Gottman et al. (1996) reported that greater emotional awareness combined across mothers and fathers was positively associated with children's peer aggression.

Past research has primarily focused on teacher- or parent-reported social competence, peer sociometrics, or observations of children's interactions with preschool classmates, but parents' emotion socialization practices may be especially germane to how children manage interactions with friends, given the close, emotionally intense nature of these relationships. The main objective of Study 2 was to assess the extent to which mother- and father-reported reactions to their children's negative emotions made unique and joint contributions to the quality of

preschool children's interactions with a close friend in two play situations. As in Study 1, this examination was guided by three models (additive, buffering, and divergence).

Method

Participants

Fifty-eight preschool-aged children and their families participated in a larger study of young children's social relationships and were recruited via the university subject pool and local preschools located in a large Midwestern town (McElwain & Volling, 2002). A subset of families (n = 37) had participated in an earlier study of family relationships during infancy (McElwain & Volling, 2004). Families who had a 4-year-old child and an older child between the ages of 5 and 10 were eligible to participate. Of the 58 families participating, 6 reported that their child did not have a close friend between the ages of 3 and 5, or that the friend was unable to participate. Therefore, 52 children participated in the friend visit.

Children (27 girls, 25 boys) averaged 52 months of age (range: 46 to 60), and friends (21 girls, 31 boys) averaged 55 months of age (range: 37 to 71). Friendship pairs consisted of 19 girl-girl, 23 boy-boy, and 10 girl-boy dyads. On average, study children and friends had known each other for 30 months (SD = 14 months) and played together 2.5 times per week (SD = 1.53). Included were 97 Caucasian, 3 Asian, 1 African-American, 1 Native-American, and 2 biracial children. The median family income was $75,000.

The mother of the study child was asked to name the child's closest friend who was approximately the same age (± a year) as the study child. In establishing reciprocity of the friendships, mothers of the designated friends were asked to rate the relationship between their child and the study child from 1 (*very good friends*) to 4 (*acquaintances*). Mothers reported that their child was “very good friends” (n=29), “good friends” (n=16), “friends” (n=6) or “acquaintances” (n=1) with the study child. Three boy-boy dyads were observed in the presence of an adult either due to safety concerns (n = 2) or because the friend refused to separate from his mother (n = 1). These three dyads were dropped from the analyses (resulting in final N = 49).

Design

Child-friend dyads visited the university laboratory and were videotaped in a 20-minute free play session, a 5-minute sharing task, and a 2-minute modified Disappointment Paradigm (Saarni, 1984). In addition, child interviews were conducted to assess social understanding. These visits were part of a larger project in which study children visited the laboratory playroom once with a friend and once with an older sibling. Friend and sibling visits were counter-balanced across families and scheduled approximately one month apart. For this study, only data from the child-friend free play and sharing task sessions were examined. Mothers and fathers of the study child independently completed a series of questionnaires. Note that three previously published reports have utilized data from Study 2 (McElwain & Volling, 2002; 2004; 2005). The current report is unique in its examination of mother- and father-reported emotion socialization as predictors of children's friendship quality.

Procedure

A female research assistant introduced the study child and his/her friend to a laboratory playroom furnished with age-appropriate toys, and children played with the toys during a warm-up period of approximately ten minutes. The study child and friend were then observed alone in a *20-minute free play session*, in which the goal was to observe how the dyad played together without stress or structure in the situation. At the end of the free play session, all toys were removed or put away, and children were observed alone in a *5-minute sharing task*. While

seated at a table, children were introduced to a new toy (Play-Doh funcutter or Play-Doh camera, counter-balanced across friend and sibling visits) and instructed to play with the toy until the experimenter returned. The main purpose of this session was to observe how the children handled a situation of limited resources (Putallaz & Sheppard, 1990).

Measures of Friendship Quality

The quality of child-friend dyadic interaction was assessed during 15-second intervals from videotapes of the free play and sharing task sessions. For each dyad, independent coders rated the quality of interaction across the two play sessions. Codes were modified from previous work and captured the constructs of coordinated play and conflict central to young children's friendships (Howes, Droege, & Matheson, 1994; Park & Waters, 1989; Youngblade & Belsky, 1992). *Social play sophistication*, based on the work of Howes et al. (1994), captured the complexity of the children's social interactions and was coded on a 7-point scale, ranging from 1(*solitary play*) to 7(*complex social pretend play*). The most complex level of play observed in each interval was coded, regardless of duration. *Coordination* captured the degree to which children's interactions were smooth and synchronous (i.e., children were aware of, and acted in coordination with, each others' social cues). Coordination was rated on a 4-point scale, ranging from 0 (*no opportunity for coordination*) to 3 (*high degree of coordination*). *Conflict intensity* assessed the degree to which children engaged in mutual opposition and was rated on a 3-point scale, ranging from 0 (*no conflict*) to 2 (*extended and/or intense conflict*).

Mean rating scores for social play sophistication and conflict were calculated within play sessions by summing each dyadic measure across intervals and dividing by the number of intervals coded. For coordination, the sum was divided by the number of intervals in which there was an opportunity for social interaction (i.e., at least one child exhibited a social cue). Social play sophistication and coordination were associated in the free play session ($r = .78$, $p < .001$) and the sharing task ($r = .38$, $p < .01$). These two dyadic measures were standardized and summed within context to form composites of *coordinated play*. Due to moderate-to-high positive skewness of the conflict scores, log transformations were conducted.

Observers were trained on a subsample of tapes until interobserver agreement was 80% or higher. In assessing interobserver reliability, 20% of the protocols were coded by a second rater. Cohen's weighted kappa was utilized to assess interobserver agreement, as it is considered a more appropriate type of reliability statistic for rating scales (Cohen, 1968). Kappas were . 75 for play sophistication, .67 for coordination, and .77 for conflict intensity.

Parental Reports of Reactions to Negative Emotions

Utilizing the CCNES (Fabes et al., 1990), parents rated how they would respond to their child's negative emotions in 12 hypothetical situations using 5-point scales, ranging from 1 (*very unlikely*) to 5 (*very likely*). (Note that the CCNES response scale was shortened from a 7-point scale to a 5-point scale in Study 2.) As described in Study 1, four subscales were of interest: (a) *problem-focused coping* ($\alpha = .75$ and .83, mothers and fathers respectively), (b) *emotion-focused coping* ($\alpha = .70$ and .84), (c) *punitive reactions* ($\alpha = .68$ and .85), and (d) *minimization reaction*s ($\alpha = .76$ and .89). As in Study 1, the emotion-focused and problem-focused subscales were correlated for mothers ($r = .40$, $p < .01$) and fathers ($r = .69$, $p < .001$), and were averaged to form composites of *supportive reactions*. Punitive and minimization reactions were also correlated (mothers: $r = .65$, $p < .001$; fathers: $r = .72$, $p < .001$) and were averaged to form composites of *non-supportive reactions*. Data were missing for 2 mother and 4 father questionnaires, and of these missing data, mothers and fathers overlapped in one family. Thus, *n*s for the analyses varied from 49 to 44.

Results

Preliminary analyses assessed whether parental education, family income, order of the friend visit, friendship characteristics (i.e., length of acquaintance, time spent together per week) and friendship status (very good friends vs. good friends vs. just friends/acquaintances) were related to the friendship outcomes. No significant associations were found. For descriptive purposes, correlations among the study measures are shown in the upper portion of Table 3. Means and standard deviations for the study measures are reported by child gender in the lower portion of Table 3. As in Study 1, 2(parent) × 2(child gender) repeated measures ANOVAs indicated that mothers reported more supportive reactions (M = 4.06, SD = .38), $F(1, 49) = 14.59$, $p < .001$, and fewer non-supportive reactions (M = 1.68, SD = .37), $F(1, 49) = 14.49$, $p < .001$, than did fathers (M = 3.76, SD = .50, support; M = 2.05, SD = .57, non-support). Main effects of child gender and the parent × child gender interactions were non-significant. One effect of child gender emerged for the friendship outcomes: sharing-task conflict intensity was greater among dyads in which the study child was male, $t(47) = 2.50$, $p < .05$ (see Table 3 for Means).

Parent-Reported Supportive Reactions as Predictors of Friendship Quality

To examine the unique and joint contributions of mother- and father-reported support to the friendship outcomes, a series of hierarchical multiple regression analyses were conducted. Paralleling the models examined in Study 1, child age and gender were entered in step 1, mother- and father-reported support (centered scores) were entered in step 2, the 2-way interaction terms (mother × father, mother × child gender, father × child gender) were entered in step 3, and the 3-way interaction term (mother × father × child gender) was entered in step 4.

Free play session—For coordinated play during free play, the F-change statistic for each step of the model was non-significant. For conflict intensity, child age and gender entered in step 1, mother- and father-reported support entered in step 2, and the two-way interactions entered in step 3, did not contribute significant amounts of variance to the prediction of this outcome. In step 4, however, the entry of the 3-way interaction term made a marginally significant contribution to free-play conflict intensity, $\Delta R^2 = .07$, $\Delta F(1, 35) = 3.40$, $p = .07$, with child gender ($\beta = .39$, $p < .05$) making a unique contribution, such that child-friend dyads tended to engage in more intense conflict during the free play session when the study child was female (see McElwain & Volling, 2002, for discussion of the gender main effects in Study 2). Moreover, a significant mother × father interaction ($\beta = .55$, $p = .01$) was qualified by a marginally significant mother × father × child gender interaction ($\beta = -.35$, $p = .07$).

Considering the relatively low statistical power to detect interactions, especially higher order interactions, in non-experimental studies (see Jaccard & Wan, 1995; McClelland & Judd, 1993), this marginally significant 3-way interaction warranted examination. Thus, in probing the mother × father × child gender interaction for free-play conflict intensity, we examined the significance of the mother × father interaction by gender and found this 2-way interaction to be significant for boys but not girls. Further, we plotted by child gender the slope of the association between father support and free-play conflict at low, moderate and high levels of maternal support. For boys, father-reported support was associated with a significant decrease in free-play conflict when maternal support was low ($\beta = -.75$, $p < .05$), a non-significant negative association when maternal support was moderate ($\beta = -.27$, *ns*), and a non-significant positive association when maternal support was high ($\beta = .22$, *ns*) (see Figure 4a). For girls, greater father-reported support related to a moderate, but non-significant decrease in free-play conflict regardless of the level of maternal support. When the association between mother support and free-play conflict was examined as a function of paternal support, a complementary pattern emerged: for boys, mother-reported support was related to a significant increase in free-

play conflict (β = .67, p < .05) when paternal support was high, a weak positive association when paternal support was moderate (β = .18, *ns*), and a negative, albeit non-significant association with free-play conflict when paternal support was low (β = -.32, *ns*) (see Figure 4b). For girls, associations between mother-reported support and free-play conflict were weak and non-significant at all levels of paternal support.

Sharing task—Next, coordinated play and conflict intensity in the sharing task were examined. Mother- and father-reported support together accounted for a significant 15% of the variance in coordinated play in the sharing task, $\Delta F(2, 39) = 3.56$, $p < .05$, yet neither maternal nor paternal support made a unique contribution (see step 2 in Table 4). The 2-way interactions in step 3 and the 3-way interaction in step 4 did not make significant added contributions to the prediction of sharing-task coordinated play (see Table 4).

For conflict intensity, child characteristics in step 1 accounted for 16% of the variance, $F(2, 41) = 3.87$, $p < .05$ (see Table 4). Child gender made a unique contribution, such that friendship dyads exhibited greater conflict when study children were male. Although the contribution of mother- and father-reported support in step 2 was non-significant, the 2-way interactions in step 3 accounted for an additional 17% of the variance in sharing-task conflict, $\Delta F(3, 36) = 3.10$, $p < .05$ (see Table 4). Moreover, the mother × father interaction made a unique contribution, although this interaction was further qualified by a significant mother × father × child gender interaction in step 4, $\Delta R^2 = .08$, $\Delta F(1, 35) = 5.10$, $p < .05$ (see Table 4).

In probing this 3-way interaction, we found the mother × father interaction to be significant for boys but not girls. Next, the slopes for the associations between father-reported support and sharing-task conflict intensity at low, moderate, and high levels of maternal support were plotted by child gender. As shown in Figure 5a, among parents of boys, greater support reported by fathers was associated with a marginally significant decrease in conflict intensity when maternal support was low (β = -.60, p = .06), a non-significant negative association when maternal support was moderate (β = -.06, *ns*), and a significant increase in conflict intensity when maternal support was high (β = .47, p < .05). In contrast, for girls, father-reported support showed a modest but non-significant negative association with conflict intensity, regardless of the level of maternal support. A similar pattern emerged for the associations between mother-reported support and sharing-task conflict intensity. For boys, mother-reported support was significantly associated with a decrease in sharing-task conflict when paternal support was low (β = -.76, p < .01), a non-significant negative association when paternal support was moderate (β = -.21, *ns*), and an increase in sharing-task conflict when paternal support was high, although this slope was non-significant (β = .33, *ns*) (see Figure 5b). For girls, associations between mother-reported support and conflict were weak and non-significant at all levels of paternal support.

Parent-Reported Non-Supportive Reactions as Predictors of Friendship Quality

To assess the unique and joint contributions of mother- and father-reported non-support to children's friendship quality, four hierarchical multiple regression analyses were conducted. For each friendship outcome, the overall model and *F*-change statistics were non-significant.

Summary

Parent-reported supportive (but not non-supportive) reactions made significant contributions to the prediction of friendship outcomes in Study 2. First, mother- and father-reported supportive reactions together contributed to greater child-friend coordinated play during the sharing task. Second, for parents of boys, a mother × father interaction emerged as a significant predictor of child-friend conflict intensity in both play sessions and, largely consistent with results from Study 1, provided support for a divergence model.

General Discussion

The main objective of the current research was to examine how mothers' and fathers' reported reactions to children's negative emotions were related to children's socioemotional outcomes, specifically, emotional understanding in Study 1 and friendship quality in Study 2. We considered three models: (a) an additive (main effects) model, (b) a buffering model, and (c) a divergence model. Interactive effects of mother- and father-reported supportive reactions emerged across the two studies and indicated partial support for a divergence model, which posits that varying levels of mothers' and fathers' emotion socialization will be associated with optimal child outcomes. Evidence of a divergence model is characterized by an interaction with a crossover effect, and this pattern was seen in the regression models predicting emotion false-belief and mixed-emotion understanding in Study 1 and child-friend conflict intensity (but for boys only) in the free play and sharing task sessions in Study 2. When one parent (mother and/or father) reported low support, greater support by the other parent was related to more optimal child outcomes, and this slope was significant for 3 of the 4 outcomes. When one parent (mother and/or father) reported high support, greater support by the other parent was related to less optimal child outcomes, and this slope was significant for all four outcomes. Recall that the latter pattern is a distinguishing characteristic of the divergence model. It is important to caution, however, that this distinguishing characteristic (i.e., greater support by one parent related to lower child competence when other parent is high in support) was not uniformly found across parents (i.e., mother- vs. father-reported support examined as the moderating variable). Likewise, although the direction of the crossover effects was mainly in support of the divergence model, in only one case did the simple slope analyses indicate significance (or near significance) of the two intersecting slopes (see Figure 5a for sharing-task conflict). Conclusions regarding the divergence model of mother- and father-reported supportive reactions to children's negative emotions, therefore, remain tentative pending further investigation. Large-scale studies that yield greater power to detect interaction effects will be especially important. Nonetheless, it is noteworthy that support for the divergence model was found across the two studies presented here given differences in participants' geographic location, child ages, and the child outcomes under consideration.

Current support for the divergence model dovetails with previous findings in which greater emotional awareness (Gottman et al., 1996) and guidance while reminiscing about past emotional events (Denham et al., 1997) combined *across* mothers and fathers were related to *less* social competence among preschool- and school-aged children. In a similar vein, Roberts and Strayer (1987) found that children functioned best when parents (mothers and fathers together) were moderately supportive of children's emotional expression, but competence started to decline at high levels of mother-father encouragement. We speculate that children who experience high levels of emotional and instrumental support by *both* parents may be shielded to some degree from situations that are emotionally challenging, thereby limiting opportunities to learn about and manage negative emotions. Moreover, when these children do experience distress, overly concerned parental reactions (with mothers and fathers reacting simultaneously, perhaps) may hinder children's processing of the circumstances surrounding their upset and their sense of efficacy in being able to cope with the distress. In accord with such interpretations, Dunn and Brown (1994) reported that moderate levels of child negative affect provided optimal opportunities for learning about emotions. Similarly, Denham and Grout (1993) found that optimal maternal reactions to children's negative emotions were often characterized by a calm, neutral manner that allowed the child some time to manage the emotion on his/her own, versus a response that was immediate, intrusive or overly placating. Clearly, further inquiry into the interpersonal processes that underlie such associations is needed.

That support for the divergence model emerged for emotional understanding and child-friend conflict, in particular, is consistent with Tomkins' (1963) theorizing that children will be more

attuned to and adept at managing interpersonal conflict when parents differ in their responses to emotional situations. Additionally, as suggested by Dunsmore and Halberstadt (1997), children who experience varying levels of support from mothers and fathers may develop a heightened awareness that people differ in their reactions to emotional events. Such awareness, in turn, may lead to more complex thinking about and understanding of emotions. As such, we suspect that the divergence model may hold for similar constructs that require processing of, and responding to, negative emotions in oneself and others, including empathy, interpersonal problem-solving, and emotional regulation. In this regard, it bears mentioning that the child interviews of emotional understanding utilized in Study 1 involved children's responses to hypothetical vignettes and were conducted in a relatively low-stress laboratory situation. Considering that children's processing of social and emotional stimuli may vary as a function of situational stress (e.g., Casey, 1993; Dodge & Somberg, 1987), and that children's "everyday" processing typically occurs in affectively-charged contexts, such as pretend play and conflict (see Dunn, 1999), it will be important to test the divergence model of emotion socialization when children's understanding of emotions are assessed under conditions of arousal (i.e., "hot cognition," Abelson, 1963) or *in vivo* (see Halberstadt, et al., 2001). Indeed, if children's ability to coordinate play and manage conflict with a friend captures emotional understanding "in action" (Dunn & Brown, 1994), Study 2 findings appear to provide preliminary evidence that the divergence model would hold for more ecologically-valid measures of emotional understanding. It is also conceivable that such measures would yield even stronger support for the divergence model, given that individual differences in social-information processing become pronounced under conditions of negative arousal (Dodge & Somberg, 1987).

Importantly, for the mother × father interactions concerning mixed-emotion understanding and conflict intensity in the sharing task, children fared similarly regardless of *which parent* took on *which role.* For instance, when support by one parent was low, greater support by the other parent was associated with less sharing-task conflict (but only for boys), and when support by one parent was high, greater support by the other parent was associated with less mixed-emotion understanding. Thus, although mothers and fathers may differ in the mean level of support they provide to their young children, supportive reactions reported by mothers and fathers appear to serve similar functions, at least in some instances. In contrast, for certain outcomes, the gender of the parent played a role in the "direction" of the interaction. Namely, father-reported support was related to children's greater emotion false-belief understanding and less free-play conflict with a friend (but for boys only) when mothers reported low support. Conversely, mother-reported support was related to a decrease in emotion false-belief understanding and an increase in free-play conflict intensity when fathers reported high support. These results indicate evidence of a divergence model, but one in which children function best when *fathers* report high support and *mothers* report low support. Gleason (1975) has suggested father-child versus mother-child conversations may present children with more cognitive challenges. Perhaps emotionally supportive fathers ask more questions about the causes or consequences of their child's distress, resulting in more complex understanding of others' minds and emotions (but see Parke, 1994; Parke & McDowell, 1998) and greater ability to manage interpersonal conflicts. Additionally, such efforts by fathers may be more productive and salient when they are not subsumed by high levels of maternal support, especially considering that, on average, mothers reported higher levels of support than did fathers. As so few studies have examined fathers' emotion socialization practices in relation to children's social-emotional competence, this interpretation is speculative and requires further investigation.

We also explored whether associations between parent-reported emotion socialization and child outcomes differed by child gender. In Study 2, child gender moderated the mother × father interactions predicting conflict intensity in the free play session and sharing task, with

the divergence model holding for boys but not girls. This result is concordant with previous findings indicating more consistent associations between parents' emotion socialization and boys' versus girls' social functioning (e.g., Eisenberg et al., 1999; Roberts, 1999; but see Denham, et al., 1997). Thus, although mean levels of parent-reported reactions to negative emotions did not differ by child gender, mothers' and fathers' emotion socialization practices may function differently for preschool-aged boys and girls. Because on average, boys use more forceful, aggressive strategies during peer disputes, whereas girls use more mitigating strategies (Miller, Danaher, & Forbes, 1986), it may be that supportive emotion socialization practices foster effective peer conflict management for boys, in particular. Furthermore, other factors such as child temperament, quality of the marital relationship, and parent-child attachment security merit investigation as potential moderators of the models of emotion socialization examined here.

Although interactive effects of parent-reported support were not found for child-friend coordinated play in Study 2, mother- and father-reported supportive reactions together were related to more coordinated, sophisticated child-friend play during the sharing task. The benefits of mother- and father-reported support to this aspect of children's friendship competence may overlap, however, as neither parent's support made a unique contribution. Furthermore, parent-reported support predicted coordinated play in the sharing task, but not in the free play session. The sharing task was a more challenging interpersonal situation, in which the child needed to balance his/her own desire for the novel toy with his/her friend's wishes. As such, parental support as assessed here may be especially relevant to children's ability to coordinate play with friends in situations in which potential for conflict and negative emotions is heightened.

Surprisingly, no associations emerged for parent-reported non-supportive reactions. Similar null findings, however, have been reported in other studies of preschool-aged children (i.e., Denham & Kochanoff, 2002; Fabes et al., 2002). Perhaps non-supportive reactions as assessed by the CCNES (e.g., parent removes the child from the situation; parent tells the child he/she is overreacting) are normative experiences for younger children, but disruptive and dysregulating for older children, who have better self-regulatory skills and a more complex sense of self. Alternatively, cumulative non-supportive parental reactions that begin in early childhood may have repercussions later in childhood when children are better able to control, even suppress, their emotional responses to challenging situations. As Eisenberg et al. (1998) note, the degree to which child age moderates associations between parental emotion socialization and child outcomes warrants attention.

By utilizing parents' self-reports we hoped to obtain a more representative, global assessment of emotion socialization in the family, in that mothers and fathers were able to draw upon a wide spectrum of experiences across time and situations. Yet, because self-reports measure parental perceptions of their behavior, future research should supplement self-reports with observations of parental reactions to children's negative emotions. Observational data will be especially valuable in further teasing apart the meaning of the interaction results discussed above. For instance, does the effect of the divergence model depend on *concurrent reactions* by mothers and fathers, in which case the child may have the opportunity to directly compare the reactions as they occur and engage in family discussions about how individuals differ in their responses to emotions? Or, is the child's *absolute exposure* to different levels of supportive reactions more pertinent for achieving greater social-emotional competence? Regarding this latter possibility, does *one* caregiver who shows differing levels of supportive reactions across contexts provide the same benefit as the divergent support of *two* caregivers? Relatedly, it will be important to investigate whether the current results extend beyond the traditional two-parent families examined here. Replication among other family structures (e.g., single-parent or mixed step-parent families) may largely depend on the mechanisms accounting for the divergence

model. For instance, if caregivers' concurrent reactions are key, the divergence model may hold less utility among single-parent households in which a second caregiver is not present. Given that circumstances surrounding single-parenthood vary widely (see Weinraub, Horvath, & Gringlas, 2002), however, the divergence model may apply to single-parent households that include a second parental figure such as a grandparent or non-married partner. If the divergence model operates via the child's absolute exposure to differing levels of supportive reactions, then perhaps children from various family structures have opportunities to experience divergent modes of emotion socialization from adults outside the nuclear family (e.g., teachers, daycare providers, extended family members).

Clearly, causal conclusions cannot be drawn from these correlational data. We have posited a direction of influence from parental emotion socialization to child competence, and although our examination yielded some confidence that the associations between parent-reported reactions and child outcomes were not accounted for by child gender or age, other child characteristics, such as sociability, attentional focusing, and emotionality, should be considered in future work. Likewise, the current finding that more supportive reactions by both parents were associated with lower levels of child competence may reflect the child's influence on the family system. Namely, both parents may increase their support toward their child's negative emotions when the child has difficulty understanding emotions or interacting with peers (but see Gottman, et al., 1996 for a null finding regarding a test of this alternative direction of effects). Longitudinal studies in which mothers' and fathers' reactions to children's emotions and children's social-emotional competence are each measured at multiple time points would enable researchers to examine transactional processes among parental emotion socialization and child competence (e.g., Eisenberg et al., 1999). Emotion socialization studies adopting behavioral genetic designs are also needed to allow for the possibility that associations are partly attributable to genetic influences.

A final caveat merits mention. In this report, the parental construct under examination concerned emotion socialization, specifically parents' reactions to children's negative emotions. As Eisenberg et al. (1998) suggest, such constructs, although perhaps related, are not synonymous with parent-child relationship quality or parental warmth/hostility. Thus, replication of support for the divergence model may be limited to emotion socialization constructs.

On the whole, the current findings indicate that children may benefit when mothers and fathers adopt different stances to their children's negative emotions. As Parke and Buriel (1998) and Rohner and Veneziano (2001) have highlighted, an understanding of the role that fathers (and mothers) play in children's lives cannot be divorced from the broader social-historical context in which families are situated. Since Parsons and Bales' (1955) conceptualization of the father as the instrumental leader of the family providing material resources and social status, and the mother as the expressive leader providing socioemotional support and nurturance, dramatic demographic and social changes have resulted in more diverse family roles for both men and women. Fathers in two-parent families have become increasingly involved in their children's lives, spending more time with their children and taking greater responsibility for their children's care (see Pleck, & Masciadrelli, 2004). Given these fathers' increasing contributions to family life, examining the joint contributions of mothers' and fathers' emotion socialization practices to children's socioemotional development seems timely.

Acknowledgements

Study 1 was conducted while the first author was supported by an NICHD postdoctoral fellowship (T-32 HD07376) at the Center for Developmental Science at the University of North Carolina at Chapel Hill and was funded by a grant from the Center for Developmental Science. Study 2 was supported in part by a Rackham Dissertation Grant from The University of Michigan to the first author and a faculty grant from the Office of the Vice President of Research

from The University of Michigan and an NICHD Independent Scientist Award (K02 HD047423) to the third author. We are grateful to the families who participated in this research and to Khaula Baloch, Brandi Daniels, Keiru Mbah, Alison Young, Michelle Poris, Sarah Boucher, Stacie Cohen, Beth Emmons, Michelle Fernandez, Erin Hill, and Amanda Powers for their assistance with data collection and coding. We also thank three anonymous reviewers for their helpful comments on an earlier version of this manuscript, and Drs. Jason Allaire and Maria Muyot for their consultation on the statistical analyses.

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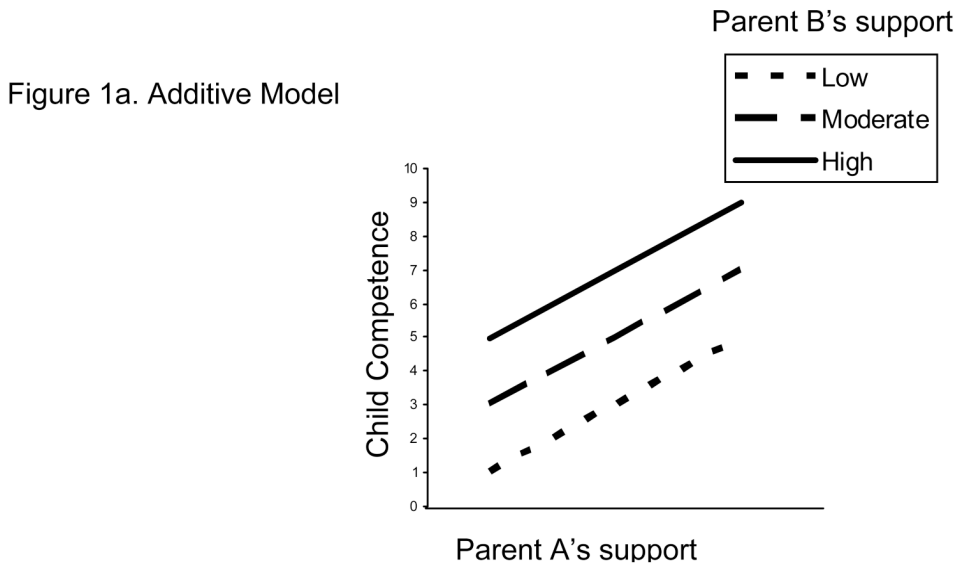


Figure 1.
Hypothetical associations for the three models of mother-father emotion socialization. Evidence of the additive model (Figure 1a) would indicate a main effect for both parents, evidence of the buffering model (Figure 1b) would indicate a significant interaction with no crossover effect, and evidence of the divergence model (Figure 1c) would indicate a significant interaction with a crossover effect (i.e., the simple slopes intersect within the range of scores under investigation, Aiken & West, 1991).

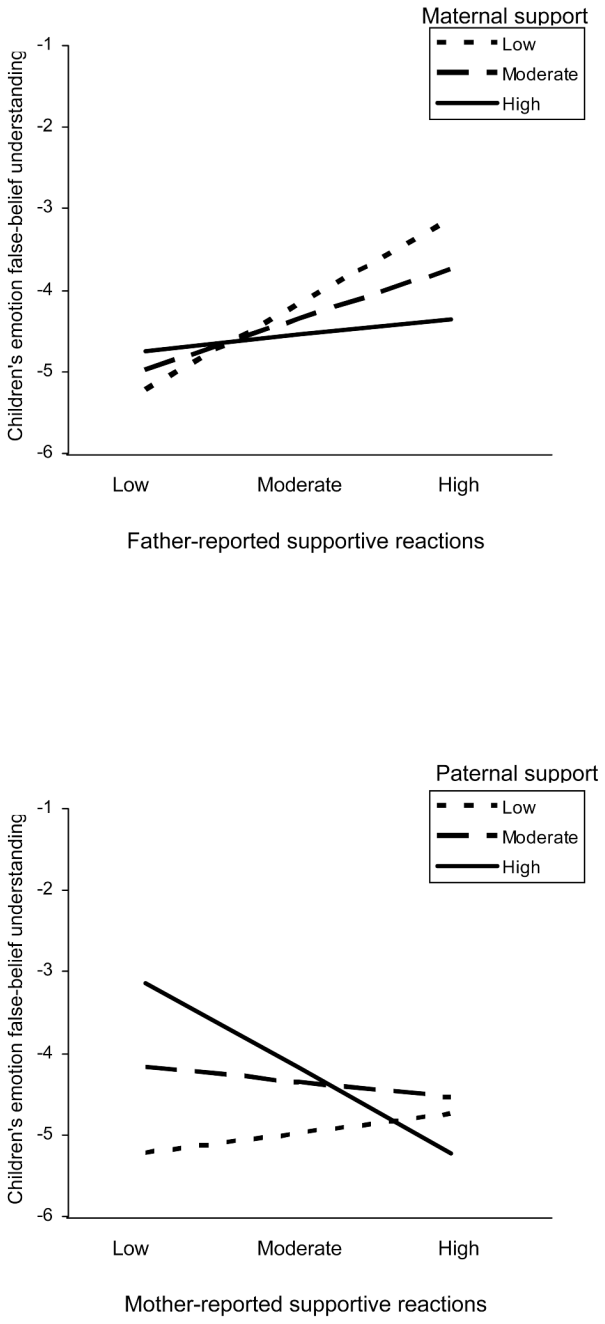


Figure 2.
Study 1: Association between children's emotion false-belief understanding and (a) father-reported supportive reactions as a function of high, moderate, and low levels of maternal support and (b) mother-reported supportive reactions as a function of high, moderate, and low levels of paternal support.

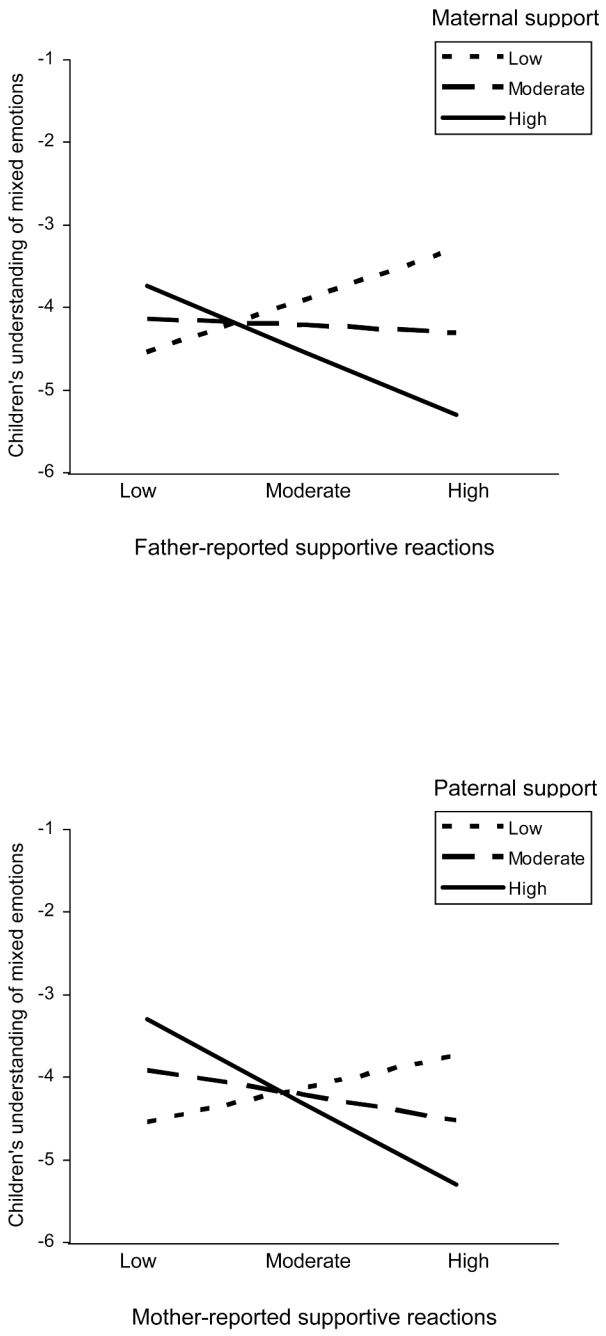


Figure 3.
Study 1: Association between children's mixed-emotion understanding and (a) father-reported supportive reactions as a function of high, moderate, and low levels of maternal support and (b) mother-reported supportive reactions as a function of high, moderate, and low levels of paternal support.

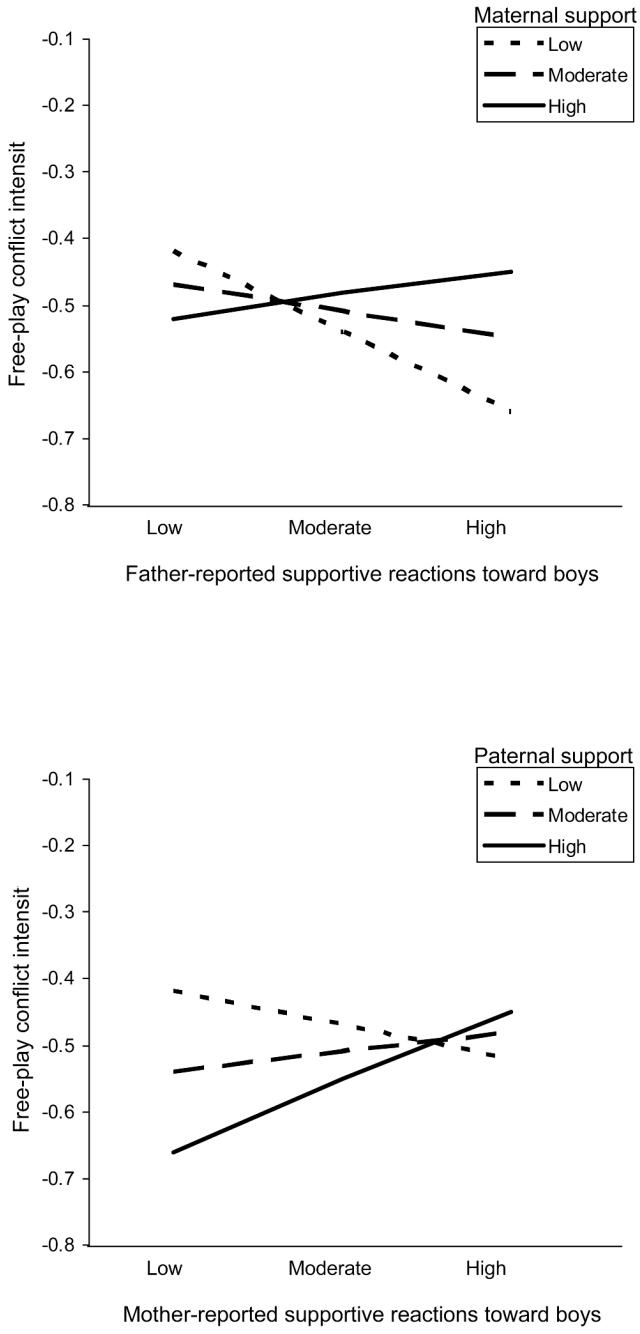
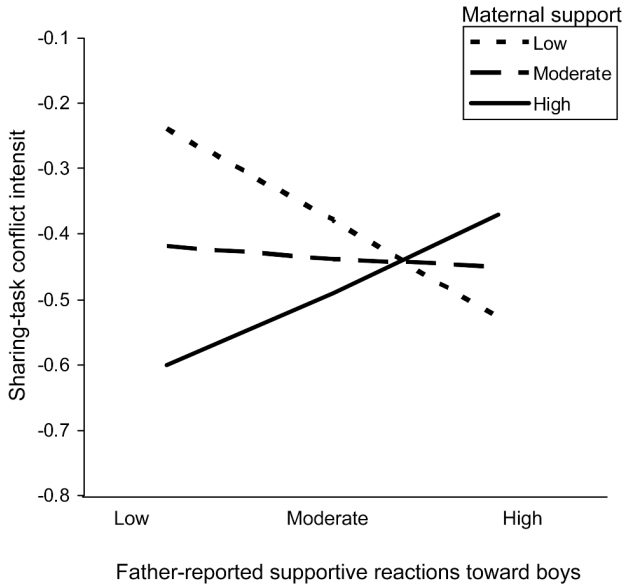


Figure 4.
Study 2: Association between boys' conflict intensity with a friend during the free play session and (a) father-reported supportive reactions as a function of high, moderate, and low levels of maternal support and (b) mother-reported supportive reactions as a function of high, moderate, and low levels of paternal support.



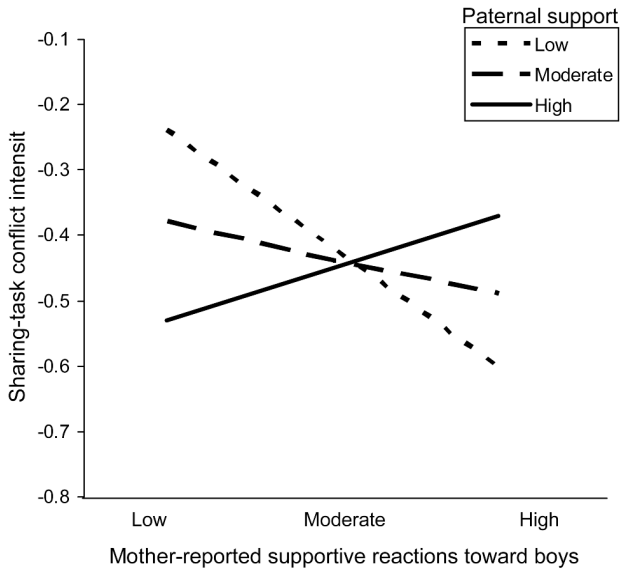


Figure 5.
Study 2: Association between boys' conflict intensity with a friend during the sharing task and (a) father-reported supportive reactions as a function of high, moderate, and low levels of maternal support and (b) mother-reported supportive reactions as a function of high, moderate, and low levels of paternal support.

Table 1

Parent-Reported Reactions to Children's Negative Emotions, Children's Emotional Understanding, and Chid Age: Descriptive Statistics and Intercorrelations (Study 1)

		MSR	MNR	FSR	FNR	EFBU	MXEU	Age
Mother-reported supportive reactions (MSR)		--	-.03	.26	.08	-.13	-.12	-.01
Mother-reported non-supportive reactions (MNR)			--	.07	.31*	-.18	.04	-.15
Father-reported supportive reactions (FSR)				--	-.10	.24	-.12	-.15
Father-reported non-supportive reactions (FNR)					--	.07	.16	-.06
Emotion false-belief understanding (EFBU)						--	.33*	.31*
Mixed-emotion understanding (MXEU)							--	.41**
Child age								--
Boys:	Mean	5.66	2.30	5.37	2.69	1.84	7.03	68.08
	SD	.59	.64	.72	.90	1.44	2.40	4.21
Girls:	Mean	5.64	2.23	5.29	2.64	2.25	7.00	69.66
	SD	.62	.54	.55	.89	1.51	2.11	5.50

Note. Associations between parent-reported reactions to children's negative emotions and children's emotional understanding differed by child gender in one instance: father-reported support and children's emotion false-belief understanding showed a significant positive correlation for boys ($r = .46$, $p < .01$) but not for girls ($r = -.08$, *ns*), $z = 2.00$, $p < .05$.

* $p < .05$,

** $p < .01$

Table 2

Parent-reported Supportive Reactions as Predictors of Children's Emotional Understanding (Study 1)

Predictors	Emotion false-belief understanding (EFBU) β	Emotion false-belief understanding (EFBU) ΔR^2	Emotion false-belief understanding (EFBU) Total R^2	Mixed-emotion understanding (MXEU) β	Mixed-emotion understanding (MXEU) ΔR^2	Mixed-emotion understanding (MXEU) Total R^2
Step 1		.10^{+}			.17**	
Child age	.30*			.42**		
Child gender	.09			-.08		
Step 2		.13*	.23**		.01	.18*
Child age	.35**			.41**		
Child gender	.10			-.08		
Mother-reported support	-.22			-.10		
Father-reported support	.36**			-.03		
Step 3		.12*	.35**		.08	.26*
Child age	.30*			.36**		
Child gender	.09			-.09		
Mother-reported support	-.13			-.13		
Father-reported support	.42**			-.03		
M × F support	-.27*			-.29*		
M × Child gender	-.17			-.00		
F × child gender	-.25			-.12		

Note. Child gender: male = 0, female = 1. Follow-up analyses were conducted to assess the percentage of variance uniquely accounted for by significant main or interaction effects involving parent-reported support. In predicting EFBU, father-reported support accounted for a unique 12% of the variance, $\Delta F(1, 50) = 7.49$, $p < .01$, and the mother × father interaction accounted for a unique 6%, $\Delta F(1, 47) = 4.50$, $p < .05$. In predicting MXEU, the mother × father interaction accounted for a unique 7% of the variance, $\Delta F(1, 47) = 4.63$, $p < .05$.

$^{+}p < .06$,

$^{*}p \leq .05$,

$^{**}p < .01$

Table 3

Parent-Reported Reactions to Children's Negative Emotions, Children's Friendship Quality and Child Age: Descriptive Statistics [a] and Intercorrelations (Study 2)

		MSR	MNR	FSR	FNR	FP-CP	FP-CI	ST-CP	ST-CI	Age
Mother-reported supportive reactions (MSR)		--	.03	.33*	-.15	-.04	.01	.29*	-.19	.18
Mother-reported non-supportive reactions (MNR)			--	-.20	.36*	-.02	-.11	-.06	.08	-.05
Father-reported supportive reactions (FSR)				--	-.45**	-.05	-.16	.33*	-.16	-.06
Father-reported non-supportive reactions (FNR)					--	-.05	.07	-.29	.19	-.20
Free-play coordinated play (FP-CP)						--	.13	.36*	.09	-.02
Free-play conflict intensity (FP-CI)							--	-.16	.55***	-.12
Sharing-task coordinated play (ST-CP)								--	-.40**	-.19
Sharing-task conflict intensity (ST-CI) [b]									--	.06
Child age										--
Boys:	Mean	4.07	1.78	3.72	2.16	-.34	.06	-.26	.13	52.58
	SD	.44	.43	.54	.59	1.67	.07	1.79	.16	3.81
Girls:	Mean	4.05	1.61	3.80	1.94	.28	.08	.21	.05	51.25
	SD	.32	.30	.47	.55	1.98	.06	1.56	.12	2.61

Note: In no case did bivariate associations between parent-reported reactions to children's negative emotions and the friendship outcomes differ by child gender.

[a] Means for the measures of child-friend coordinated play were based on composites of standardized scores. Log scores for conflict intensity were utilized in the analyses, but for ease of interpretation, descriptive statistics are presented for the raw conflict scores.

[b] Partial correlations controlling for child gender are presented for conflict intensity in the sharing task.

* $p < .05$,

** $p < .01$,

*** $p < .001$

Table 4

Parent-reported Supportive Reactions as Predictors of Child-Friend Coordinated Play and Conflict Intensity in the Sharing Task (Study 2)

	Coordinated play			Conflict intensity		
Predictors	**β**	**ΔR^2**	**Total R^2**	**β**	**ΔR^2**	**Total R^2**
Step 1		.05			.16*	
Child age	-.15			-.08		
Child gender	.15			-.41**		
Step 2		.15*	.20+		.04	.20+
Child age	-.18			-.07		
Child gender	.14			-.41**		
Mother-reported support	.26			-.13		
Father-reported support	.21			-.11		
Step 3		.03	.23		.17*	.36*
Child age	-.16			-.12		
Child gender	.09			-.29*		
Mother-reported support	.18			-.28		
Father-reported support	.23			.04		
M × F support	-.16			.36*		
M × Child gender	.13			.16		
F × Child gender	.06			-.25		
Step 4		.00	.23		.08*	.44**
Child age	-.16			-.10		
Child gender	.09			-.21		
Mother-reported support	.18			-.21		
Father-reported support	.22			-.06		
M × F support	-.14			.61**		
M × Child gender	.13			.16		
F × Child gender	.07			-.13		
M × F × Child gender	-.02			-.37*		

Note. Child gender: male = 0, female = 1. Follow-up analyses indicated that the mother × father interaction term accounted for a unique 11% of the variance in sharing-task conflict intensity, $\Delta F(1, 36) = 5.93$, $p < .05$.

+ $p \leq .06$,

* $p \leq .05$,

** $p \leq .01$