

# THE ROLE OF THE INTERPARENTAL PROCESS IN EMOTION SOCIALIZATION

by

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## ABSTRACT

The current study investigated the role of the interparental subsystem in emotion socialization. Specifically, links between interparental positive affect congruity (IPAC) and components of child emotional competence including emotion regulation, understanding, and awareness were examined. The sample included 51 families with children between the ages of 7 and 12. Along with the child, mothers and fathers discussed a time when the child felt angry, sad, anxious, and happy. Child emotional competence was assessed using a multi-method, multi-informant approach including parent and child report, behavioral observations, and semi-structured interview. Maternal and paternal displays of positive affect were coded, and sequential analyses examined the extent to which parents were congruent in their displays of positive affect. No correlations emerged between IPAC and child emotion regulation, awareness, and understanding. Moderation analyses examined family stress as a moderator of the relation between IPAC in each of the four emotion discussion contexts and child emotion regulation and awareness. Results indicated that family stress moderated the link between IPAC in the sadness emotion discussion context and child-reported emotion regulation and awareness such that greater levels of IPAC were associated with greater child emotion regulation and awareness but only in the context of low family stress. Findings suggest that positive

interparental processes, as measured in the current study, may not be particularly influential in children's development of emotional competence. Results from the moderation analyses indicate that taking into account interparental processes within the context of other familial variables may provide unique insight into the ways by which children develop emotion competencies.

**INDEX WORDS:** Emotion socialization; interparental; affective congruity; emotion regulation

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## CHAPTER 1

### INTRODUCTION

The current investigation seeks to merge two areas of study in child development. The first longstanding area of research investigates the role of marital functioning, particularly marital satisfaction and marital conflict, in child development. The second, more nascent field examines parental emotion socialization and links to child outcomes. While researchers have begun to address the influence of marital variables on children's emotional development (e.g., Davies & Cummings, 1994), studies directly examining the role of the interparental subsystem on child outcomes within the context of emotion socialization are scarce. Further, a majority of research looking at the marital couple and its influence on child outcomes has focused on discord, conflict, and divorce. As a result, additional research on positive interparental processes is warranted. Consistent with a family systems perspective, the interparental subsystem likely plays both direct and interactive roles in the adaptation of children (Cox & Paley, 1997). The current study examines the role of the interparental subsystem in child emotion socialization.

#### Emotion Socialization

Research on emotion socialization aims to determine how children come to develop emotion-related competencies including emotion regulation, understanding, and awareness. Findings from this growing literature support the role of emotion-related competencies in child adaptation. Investigators have examined determinants of emotion socialization as well as pathways and contexts by which these links occur. Researchers have investigated emotion socialization using a variety of methods including self-report (Wong, McElwain, & Halberstadt,

2009) and behavioral observations (Lunkenheimer, Shields, & Cortina, 2007) as well as samples of differing ethnic groups (Cunningham, Kliewer, & Garner, 2009), clinical samples (Suveg, Sood, Barmish, Tiwari, Hudson, & Kendall, 2008), and with age groups ranging from infants to adolescents (e.g., Klimes-Dougan et al., 2007; Malatesta, Grigoryev, Lamb, Albin, & Culver, 1986; Yap, Allen, Leve, & Katz, 2008).

In a seminal review, Eisenberg and colleagues (1998) demarcated three main modes of emotion socialization: discussion of emotion, family expression of emotion, and parental reactions to children's emotion expression. These methods of emotion socialization are considered primary modes of emotion socialization because of their direct and indirect influences on children's emotional development. The discussion of emotion, for example, serves as a rich and direct context by which parents can teach youth about emotion concepts and has been associated with children's ability to label emotions as well as emotion awareness and regulation (Denham, Cook, & Zoller, 1992), and fewer behavior problems (Lunkenheimer et al., 2007).

Several studies support the notion that family expressiveness is associated with children's adaptive development including self-soothing behaviors in toddlers and emotion regulation in school-aged children (Eisenberg, Gershoff et al., 2001). Whereas research on positive emotion expressivity is consistently associated with positive outcomes (Dunn & Brown, 1994; Eisenberg, Gershoff, et al., 2001), research on negative emotion expressivity is mixed. While investigators have found links between negative emotion expressivity and increased emotion dysregulation and aggression (Ramsden & Hubbard, 2002), some research groups have indicated that negative emotion expression can be a useful tool for children's development of emotion-related competencies (Dunsmore & Halberstadt, 1997). Exposure to chronic, negative affect may impede children's development of and use of emotion regulation skills, but exposure to

appropriate negative emotion is necessary for children to learn to identify and regulate negative emotions. A recent review of family expressiveness conducted by Halberstadt and Eaton (2011) reported five main findings. First, the relation between positive family expressivity and child expressivity appears to be robust and moderate in magnitude ( $r = .27$  across 19 studies). Second, the relation between negative family expressiveness and child expressiveness is moderated by child age such that the link between family and child expressiveness present during the infant years dissipates during childhood until it re-emerges in late adolescence. The authors argue that these results may be due to strong cultural pressure to socialize negative emotions in youth. Third, there does not appear to be a relation between positive family expressiveness and child emotion understanding. Fourth, negative family expressiveness is associated with children's emotion understanding and exhibited a curvilinear relationship by child age; the positive association between negative expressiveness in the family and child emotion understanding increases in strength as children enter school but becomes negative as youth enter the college years. Lastly, the authors reported differences by parent and child sex such that links between these variables are strongest between same-sex pairs (i.e., mother-daughter; father-son) indicating a "home-team advantage" in emotion socialization.

Parental reactions to children's emotion expression, and particularly negative emotions, have also been linked to children's socioemotional development including emotion understanding and regulation (Denham, Mitchell-Copeland, Strandberg, Auerbach, & Blair, 1997; Garner, Jones, & Miner, 1994; Suveg, Zeman, Flannery-Schroeder, & Cassano, 2005) and symptoms of psychopathology (e.g., Halberstadt, 1991; McDowell, Kim, O'Neil, & Parke, 2002). Emotion parenting behaviors consistent with unsupportive practices include punitive, dismissing, and minimizing reactions, are negatively related to emotion understanding and

regulation (Denham, Mitchell-Copeland, Strandberg, Auerbach, & Blair, 1997; Garner, Jones, & Miner, 1994; Shaffer, Suveg, Thomassin, & Bradburry, 2012; Suveg, Zeman, Flannery-Schroeder, & Cassano, 2005) and social competence (Eisenberg, Fabes, Carlo, & Karbon, 1992). In contrast, supportive emotion parenting practices including encouragement of emotion expression, emotion- and problem-focused reactions, and emotion coaching have been linked with enhanced socioemotional competence (Roberts & Strayer, 1987), social competence (e.g., Denham, 1993; Laird, Pettit, Mize, Brown, & Lindsey, 1994; Gottman, Katz, and Hoover, 1996), and fewer symptoms of psychopathology (Eisenberg et al., 1999).

Current research on emotion socialization has attempted to move beyond unidirectional methods and consider both parents and children as active members of the emotion socialization process. For example, in a recent study, Thomassin and Suveg (under review) examined mother- and father-child positive and negative emotional reciprocity in middle childhood youth. The authors found evidence in support of a unique role for paternal reciprocal positive affect in child symptoms of psychopathology through children's emotion regulation. Emotional reciprocity has also been examined both as a process and context variable influencing the link between marital functioning and child outcomes (Lindsey, Caldera, & Tankersley, 2009; Lindsey, Chambers, Frabutt, & Mackinnon-Lewis, 2009) with support for both functions of the variable.

Collectively, this brief review highlights meaningful findings from the emotion socialization literature but also a need to move beyond unidirectional methods of analysis. Further, a family systems perspective (Cox & Paley, 1997) suggests that the interparental subsystem likely plays a unique role in the socialization of emotion in youth. Yet, no study has examined the role of interparental processes, and especially positive processes, within the context of the socialization of children's emotion-related competencies. This study addresses

this gap by examining interparental positive affect congruity (IPAC) and links to child emotion outcomes.

### Marital Functioning and Children's Emotional Development

The notion that marital adjustment has implications for child adaptation is a well-established and -accepted phenomenon (Schulz et al., 2010). With respect to socioemotional outcomes, research by Davies and Cummings delineates a theoretical framework accounting for ways by which marital conflict may lead to maladaptive developmental trajectories for children. Based in developmental theory, and influenced by attachment theory specifically, the Emotional Security Framework posits that children's sense of emotional security is a primary goal for youth and can be jeopardized by interparental conflict. With their emotional security in jeopardy, youth may experience difficulties with emotion regulation, attempt to regulate the interparental conflict, and develop negative schemas of interpersonal relations (Davies & Cummings, 1994), which in turn leads to child maladaptation. This pathway has been supported using various methods (e.g., self-reports, simulated conflict, laboratory and home observations) both cross-sectionally and prospectively (See Davies & Cummings, 1994 for a review; Davies & Cummings, 1998; Cummings, Schermerhorn, Davies, Goeke-Morey & Cummings, 2006).

There are several ways in which interparental processes may influence children's development of emotion-related competencies. The marital process may directly influence children's experience of emotion through emotion contagion where conflict induces negative affect within the child. More indirectly, the marital process may model emotion-laden interactions for the child, thus contributing to children's development of schemas about how affective interactions "should" take place. Through their experience of negative emotion and witnessing interparental conflict children may learn dysregulated ways of expressing emotions.

Further, children may also learn to suppress negative emotions when in the context of marital conflict out of fear of contributing to the conflict. Schemas about emotional experience and expression, in turn, serve as the foundation by which children interact in future relationships (Dunsmore & Halberstadt, 1997).

Notably, the conceptual framework just reviewed is based on research examining marital conflict and discord. Nonetheless, several positive constructs such as the expression of positive affect between spouses (Levinger, 1965; Cohesiveness, Edwards & Saunders, 1981; Parental alliance, Floyd, Gilliom, & Costigan, 1998) may enhance emotional development in children. In particular, investigators have highlighted the role of the parental alliance in influencing child outcomes. A strong parental alliance serves to convey a consistent message to the child and may thus be key in the context of emotion socialization. For example, if a child expresses sadness over a broken toy and receives inharmonious responses from parents, then the child may experience uncertainty and distress as a result of the parents' confusing messages (Floyd, Gilliom, & Costigan, 1998). Likewise, consistent with an Emotional Security Framework (Davies & Cummings, 1994), the positive parental alliance likely provides a secure emotional environment in which the child can experience and express negative emotions. The current study is interested in the positive harmony expressed between parents while socializing emotion in their child. To measure this construct, we adopt Edwards and Saunders's (1981) concept of marital congruity, which they define as "a global concept intended to encompass dyadic consensus, satisfaction, cohesion, and affectional expression." Importantly, the authors note that high congruity is not always preferred, particularly when the congruity is based on negative variables such as hostility. In the current study, we adapt the authors' construct to affective marital congruity, and we are specifically interested in interparental positive affect congruity



(IPAC). Notably, this construct is not intended to measure mothers and fathers matching each other's affect but rather parents being "on the same page" with regard to their expression of positive affect.

Importantly, child sex has received considerable interest as an important contextual variable in the influence of marital variables on child outcomes. For example, research indicates that there may be significant differences in vulnerability to marital conflict by child sex such that increases in interparental discord were associated with higher psychological control and reduced responsiveness for boys only (e.g., Kaczynski, Lindahl, Malik, & Laurenceau, 2006; Sturge-Apple, Davies, Boker, & Cummings, 2004). These findings, however, are in the context of discord and conflict; it is unclear whether child sex will function similarly in the face of positive socialization variables. For example, while it may be that boys are more susceptible to marital discord, positive socialization variables may be equally influential for boys and girls.

To summarize, emotion-related competencies are associated with various child outcomes including symptoms of psychopathology (Cicchetti, Ackerman, & Izard, 1995; Cole, Michel, & Teti, 1994; Zeman, Shipman, & Suveg, 2002) and social competence (Denham et al., 2003; Eisenberg et al., 1995). As such, it is essential to examine agents, modes, and pathways of emotion socialization. Consistent with a family systems perspective, there is a need to move beyond correlations between parent, self-reported emotion parenting practices and child outcomes to examine how process-oriented variables act and interact within and between various subsystems. Though parents, and particularly mothers, may be considered the primary agents of socialization (Halberstadt, Feldman, & Rime, 1991), research has supported a unique and significant role for fathers (Thomassin & Suveg, under review). Further, research on marital functioning has indicated that the interparental subsystem may be a unique and significant agent

of emotion socialization, as suggested by Davies and Cummings' (1994) program of research on the Emotional Security Theory. Nonetheless, it is unclear how the interparental subsystem contributes to children's development of specific emotion-related competencies including emotion regulation, understanding, and awareness. Notably, the majority of marital research has focused on marital conflict as assessed by parent- and child-report, and despite some research looking at positive emotion socialization variables such as emotion coaching (Gottman, Katz, & Hooven, 1996), positive affective exchanges (Thomassin & Suveg, under review), and positive expressivity (Halberstadt, Fox, & Jones, 2000), there remains a significant gap in delineating how positive process variables work in the emotion socialization "web of influence" (Morris et al., 2007), particularly within the interparental subsystem.

#### The Current Study

The current study builds upon the emotion socialization and marital functioning literatures by investigating the association between IPAC in the context of emotion socialization and child emotion-related competencies including emotion regulation, emotion understanding, and emotion awareness. The study advances previous research in several ways. First and foremost, the interparental subsystem is examined within the context of emotion socialization; the particular context involves mothers and fathers discussing previous emotional experiences with their child. The role of marital variables in child outcomes has been examined, but the context has not focused on the socialization of positive and negative emotions in youth.

Second, interparental positive processes are assessed using an event-based, microlevel coding system that allows for an examination of reciprocal positive affect in real-time. This approach adds to the current literature by focusing on positive variables and enhances previous research that used self-report variables to assess marital functioning. Further, the particular

coding system supports Gottman's research indicating that microlevel coding is particularly useful when examining positive variables in the marital context (Gottman & Notarius, 2000).

Third, the current study investigates specific components of child emotional competence including emotion regulation, understanding, and awareness. These constructs are measured using a multi-method, multi-informant approach including parent-reported (both mother and father), child reported, and observed measures of emotion regulation. Emotion understanding is assessed using an interview, and emotion awareness is assessed via child self-report.

### Study Aims and Hypotheses

The primary aim of the current study is to examine links between IPAC and components of child emotional competence including emotion regulation, understanding, and awareness. It is expected that higher levels of IPAC within the interparental subsystem will be associated with enhanced child emotion regulation, understanding, and awareness.

## CHAPTER 2

### METHOD

The current study employs an already existing set of data, which was collected to examine parental influences on children's socioemotional development. The sample was acquired from the surrounding community, and sample characteristics are delineated below.

#### Participants

The sample includes 51 youth between the ages of 7 and 12 and their mothers (M age = 39.74, SD = 5.72 years) and fathers (M age = 39.74, SD = 5.72 years). The sample consists of 25 males and 26 females with a mean age of 9.11 years (SD = 1.68). Participants identified as Caucasian (80%), African American (8%), Asian (4%), Hispanic or Caucasian/Hispanic (6%), and "other" (2%).

In regards to family composition, approximately 91% of the mothers and 86% of the fathers that participated in the study are biological parents to the child. At the time of the study, 89.5% of the children's parents were married. Household income ranges from \$20,000 to over \$80,000 with 18% of the sample earning below \$39,999, 35% between \$40,000 and \$59,999, 16% between \$60,000 and \$79,999, and 31% of the sample earning over \$80,000.

#### Procedure

Children and their parents were recruited from the community through schools and flyers. A phone screen determined eligibility based on the following inclusion criteria: a child between the ages of 7 and 12 and two parents having lived with the child for at least two years. Exclusion criteria included IQ below 80, psychotic symptoms, and suicidal ideation. Once eligibility was

determined, families visited the university's laboratory where the triad participated in an emotion discussion. Participants then individually completed study questionnaires with the help of a research assistant if needed. Parents were compensated \$40 for their participation, and children were given a small token of appreciation. All study procedures were conducted in accordance with the sponsoring university's Institutional Review Board.

### Emotion Discussion Task

The emotion discussion task required the child, mother, and father to discuss a time when the child felt each of four emotions: happy, sad, anxious, and angry. The triad discussed each emotion and associated event for five minutes, totaling 20 minutes. The discussions were videotaped and later coded for instances of positive affect, negative affect, and child emotion regulation; codes are discussed below.

### Measures

#### Interparental Positive Affect Congruity

#### *Behavioral Observations of Affect*

Observations of positive affect were coded using a microlevel, event-based approach and relied on both verbal and nonverbal cues of affect. For example, positive affect was coded when a participant expressed positive emotion through affectionate gestures or words of endearment (e.g., compliments, expression that they are enjoying the interaction) as well as through facial expressions of positive emotion (e.g., smiling). Each family member was coded separately to avoid bias and interference from other the coding of other family members. Cohen's Kappa coefficients for Positive Affect displayed by mothers were .66, .68, .64, .78 for the anger, sadness, anxiety, and happiness discussions, respectively. For fathers, Cohen's Kappa

coefficients were .70, .71, .71, and .79 for the anger, sadness, anxiety, and happiness discussions, respectively.

#### *Time Lag Sequential Analyses of Reciprocal Positive Affect*

Using raw instances of positive affect, time lag sequential analyses were used to determine to what extent the parents were congruent in their expression of positive affect. Notably, sequential analyses were not intended to measure mothers and fathers matching each other's affect but rather parents being "on the same page" with regard to their expression of positive affect. A ten second time lag was employed such that congruity was noted when both mother and father expressed positive affect within a ten second window. Due to the possibility that greater general levels of affect would provide greater opportunity for affect matching, the frequency of congruity was divided by the total interparental affect expressed.

Emotion-related competencies

#### *Child Emotion Regulation*

Mothers and fathers completed the Emotion Regulation Checklist (ERC; Shields & Chicchetti, 1997), which is a 24-item checklist of parents' perceptions of their child's typical method of managing emotional experiences. For the purpose of the study, the Emotion Regulation subscale, which measures appropriate emotion expression and regulation (e.g., "Can modulate excitement in emotionally arousing situations") was used. The measure has shown adequate reliability, and internal consistency for the Emotion Regulation subscale in the current study was .79 for mothers and .76 for fathers. Notably, the mother- and father-reported scales were significantly correlated ( $r = .55, p < .001$ ), and thus the scores were combined to form a parent-reported composite of child emotion regulation.

Children completed the Children's Emotion Management Scales (CEMS; Zeman,

Shipman, & Penza-Clyve, 2001; Zeman, Cassano, Suveg, & Shipman, 2009), which measures regulation of anger, sadness, and worry. For the purposes of the study, the Emotion Regulation Coping subscale, which measures children's adaptive methods of emotion management (e.g., “I keep myself from losing control of my worried feelings”), was used. The scale has shown acceptable internal consistency ( $\alpha = .62-.77$ ; Zeman et al., 2001), and internal consistency of this subscale in the current study was .68.

Child emotion regulation was also assessed through behavioral observations during the emotion discussion tasks. Similarly to the coding of positive affect, child emotion regulation was coded using a microlevel, event-based approach. Adaptive emotion regulation comprised of appropriate self-regulatory strategies including coping self-talk (e.g., “I will feel better and the teacher might help me with it”), problem-focused strategies to reduce emotional arousal (e.g., “Talking about it makes me feel better and more confident”), and appropriate self-expression of emotion/discussion of emotion (e.g., “That made me feel sad when...”). Notably, the coding of the above constructs took into account context and developmental level so that they were only coded if considered appropriate. For example, discussion of an emotional experience that was inappropriate to the context or expression of an emotion that is to a much greater intensity than would be expected given the situation was not coded as adaptive emotion regulation. Interrater reliability for the adaptive emotion regulation construct was .62, .57, .50, and .54 for the anger, sadness, anxiety, and happiness emotion discussion contexts, respectively. These kappa coefficients fell in the *moderate* range (Landis & Koch, 1977).

### *Emotion Understanding*

Child participants were administered the Kusche Affective Interview-Revised (KAI-R; Kusche, Greenberg, & Beilke, 1988), which is a semi-structured interview that assesses several

components of emotional development in youth including the ability to discuss emotion-related experiences (e.g., “Tell me about a time when you felt sad.”), recognition of emotions in self and others (e.g., “How do you know when other people are feeling jealous?”), “knowledge of whether and how emotions could or should be hidden,” and understanding of how emotional experiences can change (e.g., “Suppose you were feeling upset, could your feelings change? Tell me what would happen.”). Child responses to these items were transcribed, and the transcriptions were coded for developmental level of response based on the scoring protocol delineated by Kusche, Greenberg, and Beilke (1988). For the purpose of the current study, a Total Emotion Understanding score was computed. Internal validity and interrater reliability for the interview has been previously established (Cook et al., 1994; Greenberg, Kusche, Cook, & Quamma, 1995). Internal consistency in the current study was .84, and interrater agreement, calculated using 20% of the interviews, was .97.

#### *Emotion Awareness*

Child participants completed the Emotion Expressivity Scale for Children (EESC; Penza-Clyve & Zeman, 2002), a 16-item scale that assesses children’s willingness to express emotions and their emotion awareness using a 5-point Likert scale (1 = “Not at all true,” 5 = “Extremely True”). The Poor Awareness subscale (e.g., “I often do not know how I am feeling”) was used; high scores on the subscale indicate poor awareness. Previous research as indicated adequate internal consistency (Penza-Clyve & Zeman, 2002), and internal consistency for the poor awareness subscale in the current study was acceptable at .65.

#### *Family Stress*



Family stress was reported by the mother and consisted of a global question: “How would you assess the stress in your family over the past year?” Mothers indicated the level of family stress on a 5-point Likert scale (1 = No stress; 5 = Very high stress).

## CHAPTER 3

### RESULTS

#### Descriptive Analyses

Instances of shared positive affect between parents were calculated using time lag sequential analysis with a ten second time lag. This frequency was then divided by the total frequency of positive affect expressed by mothers and fathers. The resulting proportion constituted the construct of IPAC and represents the extent to which mothers and fathers were congruent in their expression of positive affect. Means, standard deviations, and ranges of IPAC for each of the four emotion discussion contexts are provided in Table 1, and a pictorial representation is provided in Figure 1. Specifically, the scale of IPAC ranged from zero to one with one representing 100% congruity. In the current study, IPAC in the anxiety, anger, and happiness emotion contexts occurred approximately one-third of this time. In the sadness context, IPAC occurred approximately one-fourth of the time. Preliminary data analyses also examined descriptives of all outcome variables including plot distributions, means, and standard deviations. See Table 2 for means, standard deviations, and ranges for all outcome variables.

#### Primary Aim

The primary aim of the study was to examine the relation between IPAC and child emotional competence, and it was hypothesized that greater IPAC would be related to higher levels of child emotion regulation, understanding, and awareness. To test this hypothesis, IPAC was correlated with measures of child emotion regulation, understanding, and awareness. No significant correlations emerged. See Table 3.

## Exploratory Analyses

Exploratory analyses examined whether links between IPAC and child emotional functioning exist in the context of family stress. For example, it may be the case that IPAC serves as a buffer in the context of high family stress. In contrast, it could be that IPAC is most impactful in the context of low levels of stress. Given the exploratory nature of the analyses, analyses were limited to those emotion variables we theoretically believed might be most influenced by IPAC in the context of stress including emotion regulation and awareness. Emotion regulation, for example, has been linked to marital functioning, and particularly marital conflict (e.g., Davies & Cummings, 1994). Emotion awareness has also received considerable support as a prerequisite for adaptive emotion regulation (Stegge & Terwogt, 2007).

Moderation analyses followed recommendations set forth by Hayes and Matthes (2009). Hayes and Matthes (2009) state that moderation occurs when the interaction term between the focal predictor (i.e., IPAC) and moderator variables (i.e., family stress) is significant. The authors' SPSS macro (<http://www.comm.ohio-state.edu/ahayes/SPSS%20programs/modprobe.htm>) was used to perform the moderation analyses and provided conditional associations between IPAC and child emotion outcomes (i.e., parent-reported child emotion regulation, child-reported emotion coping, and child-reported emotion awareness) at low ( $-1 SD$  below the mean) and high ( $+1 SD$  above the mean) levels of family stress. Child sex was also entered in all models as a covariate but was not significant in any of the models.

### *Anger Emotion Context*

Moderation analyses examining family stress as a moderator of the link between IPAC in the *anger* emotion discussion and child emotion outcomes were non-significant for parent-

reported child emotion regulation,  $t(49) = .19, p = .848$ , child-reported emotion coping,  $t(49) = -.08, p = .935$ , and child-reported emotion awareness,  $t(49) = .37, p = .711$ .

#### *Sadness Emotion Context*

Moderation analyses also examined family stress as a moderator of the link between IPAC in the *sadness* emotion discussion and child emotion outcomes. Family stress was not a significant moderator of the link between interparental PA congruity and parent-reported child emotion regulation,  $t(50) = -1.26, p = .215$ , but did emerge as a significant moderator when child-reported emotion coping,  $t(50) = -2.47, p = .017$ , and child-reported emotion awareness,  $t(50) = 2.76, p = .008$ , were entered as outcome variables. See Table 4. Greater levels of IPAC were associated with greater child-reported emotion coping,  $t(50) = -2.10, p = .041$  and lower levels of poor emotion awareness,  $t(50) = -2.15, p = .036$  in the context of low levels of stress. See Figures 2 and 3.

#### *Anxiety Emotion Context*

Moderation analyses examining family stress as a moderator of the link between IPAC in the *anxiety* emotion discussion and child emotion outcomes indicated that family stress was not a significant moderator for parent-reported child emotion regulation,  $t(50) = -.31, p = .756$ , child-reported emotion coping,  $t(50) = -1.69, p = .098$ , and child-reported emotion awareness,  $t(50) = .32, p = .748$ .

#### *Happiness Emotion Context*

Moderation analyses examined family stress as a moderator of the link between IPAC in the *happiness* emotion discussion and child emotion outcomes. Results indicated that family stress was not a significant moderator when parent-reported child emotion regulation,  $t(50) = -$

.46,  $p = .651$ , child-reported emotion coping,  $t(50) = -.41$ ,  $p = .681$ , and child-reported emotion awareness,  $t(50) = .13$ ,  $p = .901$  were entered as outcomes.

## CHAPTER 4

### DISCUSSION

The current study examined the role of interparental congruity of positive affect (IPAC) and links to child emotional functioning. The study contributed to the emotion socialization literature in several ways. First, the study focused on the interparental subsystem in the socialization of both negative (i.e., anger, sadness, anxiety) and positive emotions (i.e., happiness) in children. Second, the study examined specific components of emotional functioning using a multi-method, multi-informant approach. Lastly, family stress was examined as a contextual variable influencing the process of socialization.

The primary aim of the current study was to examine links between IPAC and child emotion regulation, understanding, and awareness. It was expected that higher levels of IPAC while socializing various emotions in children would be associated with enhanced child emotion regulation, understanding, and awareness. Current findings did not support this hypothesis; no significant correlations emerged between IPAC and child emotion outcomes. With respect to child emotion understanding, however, the absence of a relation between positive congruity and emotion understanding is consistent with a recent review of family expressiveness conducted by Halberstadt and Eaton (2011) that suggested no relation between family positive expressiveness and child emotion understanding. It may be that negative process variables are more influential than the positive variables examined in the current study in predicting child emotion understanding (Halberstadt & Eaton, 2011). Overall, however, these results are contrary to what was expected based on research showing that positive emotion expressiveness is positively

associated with child emotion regulation (Eisenberg, Gershoff, et al., 2001). Additionally, research on marital stability and coparenting suggests that having both parents convey a harmonious message to the child is important, with a particular role for positive variables (Floyd, Gilliom, & Costigan, 1998). Nonetheless, in the current community sample of families, it may be that other variables, either separately from or in conjunction with IPAC, accounted for children's emotional functioning.

There are several potential explanations for the null findings. First, it may be that *negative* interparental variables are more influential than positive variables in accounting for child emotion outcomes. Research on child outcomes associated with marital discord and Davies and Cummings' work on the Emotional Security Theory (1994) support this tenet, and future studies would thus benefit from incorporating congruity of negative affect in the context of emotion socialization. Yet, there is strong support for the role of positive emotion socialization variables in children's adaptive emotional development (e.g., Gottman, Katz, & Hooven, 1996; Halberstadt, Fox, & Jones, 2000; Thomassin & Suveg, under review). It could be that the current coding system may not have captured the positive process variables that are most relevant to interparental socialization of children's emotion competencies. It may be that positive affective exchanges in the interparental subsystem are subtle and thus may be easily dominated by other socializing influences. Further research should examine more overt emotion socialization behaviors in the interparental system. For example, skill-based emotion socialization practices such as emotion coaching or validation would perhaps be more influential in children's development of adaptive emotion competencies, and social learning theory would support the child's learning of these emotion coping strategies.

Exploratory analyses examined family stress as a moderator of the link between IPAC in each of the four emotion discussion contexts and parent- and child-reported emotion regulation and child-reported emotion awareness. We focused our analyses to examining emotion regulation and awareness as outcomes based on previous research linking interparental processes to child emotion regulation (e.g., Davies & Cummings, 1994) and based on the value of emotion awareness as a prerequisite for adaptive emotion regulation (Stegge & Terwogt, 2007). Specific hypotheses were not delineated due to the exploratory nature of the analyses. Two main findings emerged from these analyses: IPAC was associated with child emotion regulation and awareness in the context of low family stress and these findings emerged for the sadness emotion discussion context only.

With regard to the result that IPAC was related to child emotion regulation and awareness in the context of low family stress, the findings suggested a hierarchy of emotion socialization influences (Kaczynski, Lindahl, Malik, & Laurenceau, 2006). Specifically, IPAC was not associated with child emotion outcomes in the context of *high* family stress. These results indicate that when both IPAC and high family stress are present, family stress may exert a more dominant influence over children's emotional development than the presence of IPAC. In fact, previous research suggests links between family stressors (e.g., home chaos, job role dissatisfaction) and emotion socialization including supportive and unsupportive emotion parenting behaviors (e.g., Nelson, O'Brien, Blankson, Calknis, & Keane, 2009). Further, Margolin and Gordis (2003) previously found that the transfer of negative interactions within the marital system to the parent-child system is strongest in the context of high levels of family stress. A family environment characterized by high stress may be more critical to children's emotional development than the mere positive interactions between parents. It might be that



marital interactions are dominated by a high stress family atmosphere in such a way that familial stress might spillover into other family subsystems not examined in the current study (e.g., the parent-child subsystem), which may be more directly linked to child emotion outcomes.

Nonetheless, in the absence of high levels of family stress, interparental positive processes in the context of sadness do relate to child emotion awareness and coping, which supports the notion that the marital subsystem is a system of influence that warrants consideration (Morris et al., 2007). Findings also highlight the notion that the family system and the interparental subsystem are likely unique but may interact to contribute to children's emotional development.

The few significant findings for the sadness condition only highlight the notion that emotion discussion context matters. In particular, family stress moderated the link between interparental congruity of positive affect in the *sadness* emotion discussion and child-reported emotion regulation and awareness such that these relations were significant only at low levels of family stress. Moderation models in the anger, anxiety, and happiness contexts were not significant. It is notable that the proposed moderation models were particularly relevant for the sadness emotion discussion contexts as this negative emotion is typically considered a vulnerable emotion (Shoebi, 2008). From a functionalist perspective of emotion, the sadness emotion context may have called for positive affect as a means of expressing sympathy to the child's experience of sadness, which serves to validate the child's emotional experience. Further, it might be that the parents' congruity of positive affect in the context of the child's emotional vulnerability (i.e., expression of sadness) provided a secure environment for emotional expression, thus enhancing child emotion regulation.

Interestingly, at high levels of family stress, a marginally significant *positive* relation emerged between IPAC and child-reported poor emotion awareness such that greater levels of

IPAC were associated with greater poor emotion awareness. It might be that the combination of high levels of IPAC and high levels of family stress is interpreted as inharmonious and conflicting by the child (Floyd, Gilliom, & Costigan, 1998) and this discrepancy, in turn, impedes the child's development of emotion awareness capabilities. It may also be that high levels of IPAC in the context of high family stress interferes with child emotion awareness because positive reciprocity between parents is perceived as invalidating to the child, particularly if the child is experiencing high levels of negative emotions as a result of high levels of family stress.

Several limitations of the current study are noted. Even though the focus on positive process variables is valuable to the study of emotion socialization (Gottman, Katz, & Hooven, 1996; Halberstadt, Fox, & Jones, 2000; Thomassin & Suveg, under review), the current study did not find correlations between IPAC and child emotion outcomes. The current coding scheme may not have targeted the most relevant positive variables of influence. Importantly, the presence of positive affect does not imply the absence of negative affect (Fauchier & Margolin, 2004) and based on previous findings indicating that conflict and discord are linked to children's emotion outcomes (e.g., Davies & Cummings, 1994), negative process variables may offer greater insight into the role of interparental processes in child emotion socialization. Further, family stress in the current study was assessed using a global question where the mother reported on experienced family stress within the past year using a 5-point Likert scale. Though previous research supports the notion that perception of stress is a significant predictor of outcomes (Nelson et al., 2009), research on types of stressors (e.g., parenting stress, financial hardship, parental psychopathology) may offer additional insight into how the interparental subsystem and stress variables interact to influence child outcomes. In a similar vein, investigators have

challenged the external validity of measuring stress via individual stressors and global stress variables arguing that stressors often occur in a cumulative fashion (Rutter, 1979). Research has also indicated that measuring the cumulative effects of life stressors can predict unique variance in outcomes (Forehand, Biggar, & Kotchick, 1998). The use of a global stress variable, as used in the current study, does not clearly illustrate what a “high stress” and “low stress” family looks like. The use of a global, one-item scale may also prevent direct comparisons with other studies examining stress. Lastly, the sample was relatively small and primarily Caucasian; it is unclear how these processes might operate in more diverse samples.

The preliminary nature of the current study suggests several avenues for future research directions. First, additional research would benefit from including negative process variables (i.e., congruity of negative affect) also *in the context of emotion socialization* as it may be that high levels of negative affect exchanges between mothers and fathers are predictive of child emotion outcomes. To measure instances of negative affect, future studies could focus on clinical samples of youth (e.g., youth with high levels of depressive symptoms) to ensure sufficient frequency of displays of negative affect. Second, examining other positive process variables such as interparental emotion- and problem-focused responses and instances of validation might better capture the ways in which such processes influence children’s development of emotional competence. Lastly, additional research would benefit from measuring stress in a cumulative fashion such as through a life stress checklist.

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Table 1

Means and standard deviations for interparental positive affect congruity by emotion context

Context	Interparental PA Congruity	
	M (SD)	Range
Anger	.33 (.19)	.00-.76
Sadness	.26 (.21)	.00-.86
Anxiety	.31 (.22)	.00-.74
Happiness	.37 (.20)	.00-.90

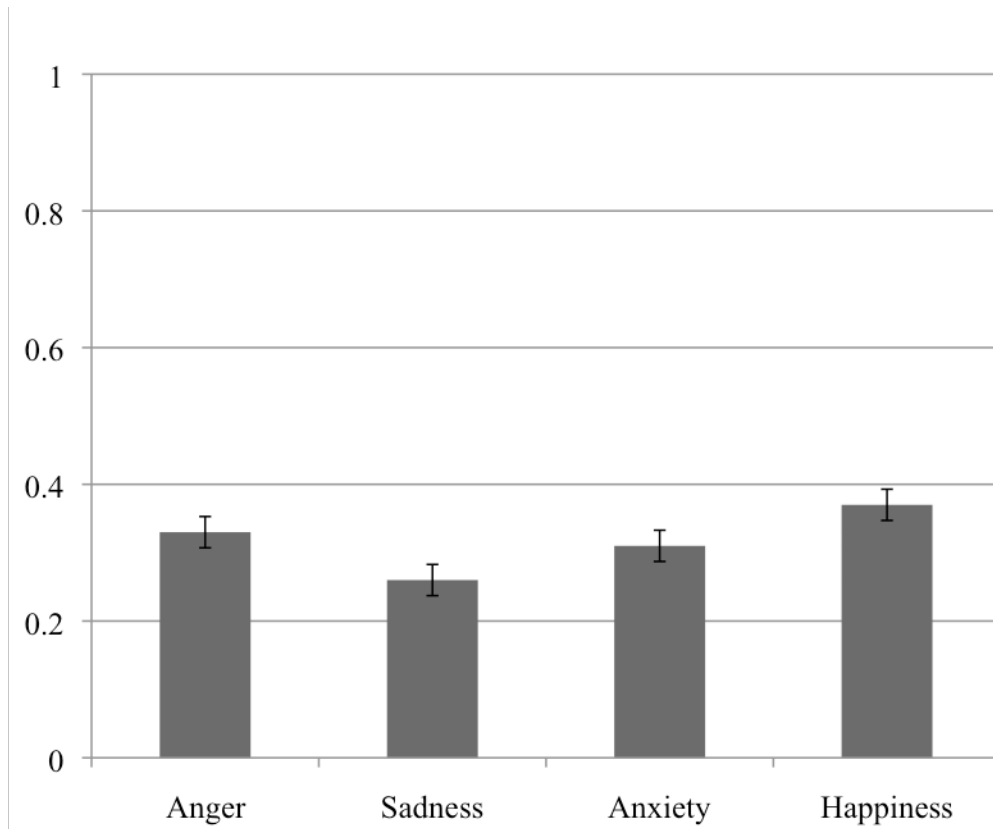


Figure 1. Interparental positive affect congruity across emotion contexts

Table 2

Descriptive statistics for emotion regulation, understanding, and awareness variables and family stress

	M (SD)	Range
Child Emotion Regulation		
Parent-reported (ERC ER)	25.49 (3.63)	15-31
Child-reported (CEMS Cope)	8.26 (1.40)	5.67-11
Observed (Obs ER)		
Anger	4.50 (4.85)	0-23
Sadness	5.29 (4.62)	0-17
Anxiety	6.58 (5.71)	0-29
Happiness	5.94 (6.30)	0-20
Child Emotion Understanding		
Emotion Interview (KAIR Total)	54.77 (12.04)	16-71
Child Emotion Awareness		
Child-reported (EESC PA)	21.56 (5.78)	12-35
Family Stress	3.03 (1.02)	1-5

Note: Parent ERC ER = Parent reported Emotion Regulation on the Emotion Regulation Checklist; CEMS Cope = Child Emotion Regulation Coping on the Children's Emotion Management Scales; Obs ER = Emotion Regulation measured via behavioral observations; KAIR = Kusche Affective Interview Revised; EESC PA = Emotion Expressivity Scale for Children Poor Awareness subscale.

Table 3

Correlations between interparental PA congruity and child emotion regulation, understanding, and awareness

Measure	Interparental PA Congruity			
	Anger	Sadness	Anxiety	Happiness
Parent ERC ER	-.21	.10	-.07	.13
CEMS Cope	-.05	-.01	.00	-.03
ER beh obs-anger	-.04	-.03	-.06	.08
ER beh obs-sadness	-.04	-.15	.08	-.10
ER beh obs-anxiety	-.08	-.17	-.20	-.17
ER beh obs-happiness	-.03	-.05	-.11	-.01
KAI-R Total	-.23	.07	-.10	-.05
EESC PA	.05	.00	.06	.06
Family stress	-.09	.21	.09	.05

Note: Parent ERC ER = Parent reported Emotion Regulation on the Emotion Regulation

Checklist; CEMS Cope = Child Emotion Regulation Coping on the Children's Emotion

Management Scales; Obs ER = Emotion Regulation measured via behavioral observations;

KAIR = Kusche Affective Interview Revised; EESC PA = Emotion Expressivity Scale for

Children Poor Awareness subscale.



Table 4

Conditional effects of interparental positive affect congruity during a sadness discussion context on child emotion outcomes at high and low levels of family stress

Outcome Variable	b (SE)	t	95% CI
Parent ERC ER			
-1 <i>SD</i> (family stress)	5.27 (3.6)	1.46	-1.97, 12.52
+1 <i>SD</i> (family stress)	-.90 (2.99)	-.30	-6.92, 5.11
CEMS Sad Cope			
-1 <i>SD</i> (family stress)	3.88 (1.84)	2.10*	.17, 7.59
+1 <i>SD</i> (family stress)	-2.39 (1.56)	-1.53	-5.53, .75
EESC PA			
-1 <i>SD</i> (family stress)	-13.45 (6.24)	-2.15*	-26.01, -.89
+1 <i>SD</i> (family stress)	10.28 (5.29)	1.94	-.36, 20.92

Note: Parent ERC ER = Parent reported Emotion Regulation on the Emotion Regulation

Checklist; CEMS Sad Cope = Child Emotion Regulation Coping on the Children's Sadness

Management Scales; EESC PA = Emotion Expressivity Scale for Children Poor Awareness subscale.

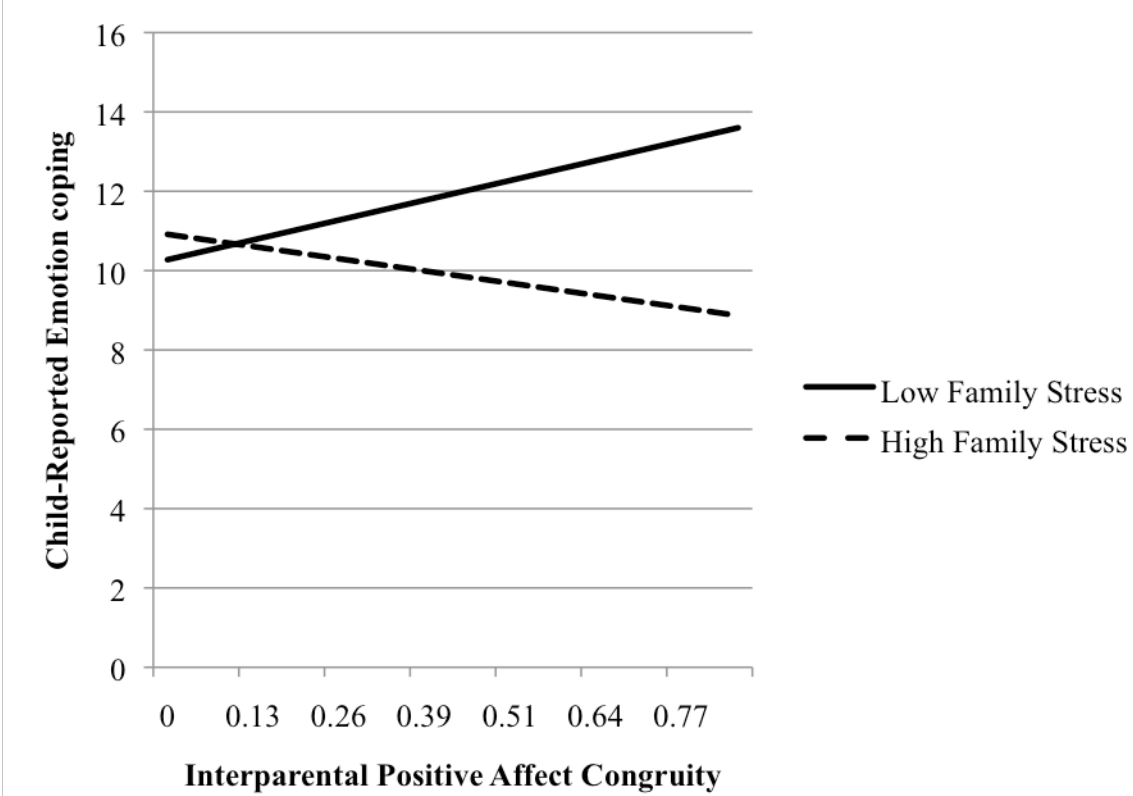


Figure 2. Greater levels of interparental positive affect congruity during the sadness emotion discussion is associated with greater levels of child-reported emotion coping when in the context of low family stress

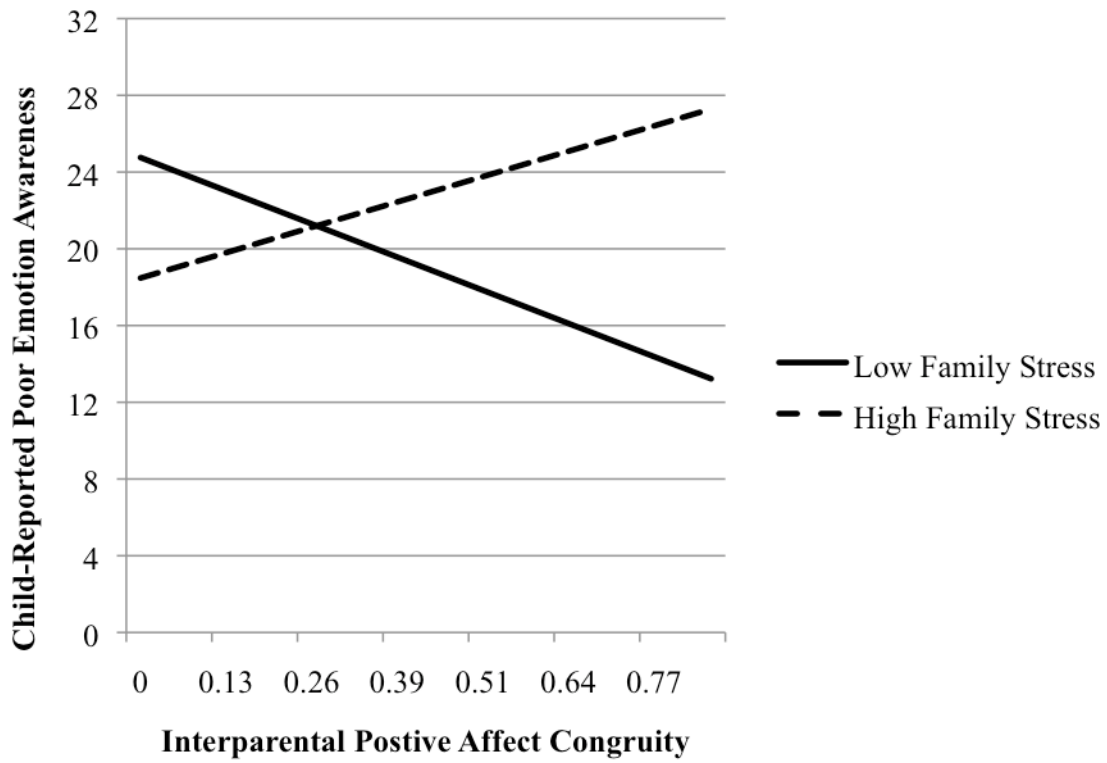


Figure 3. Greater levels of interparental positive affect congruity during the sadness emotion discussion is associated with less child-reported poor emotion awareness when in the context of low family stress

Table 5

Correlations among all study variables

Measure	1	2	3	4	5	6	7	8	9	10	11	12
1. IPAC-anger	-											
2. IPAC-sadness	.19	-										
3. IPAC-anxiety	.14	.24	-									
4. IPAC-happiness	.12	.50**	.27	-								
5. Parent ERC ER	-.21	.10	-.07	.13	-							
6. CEMS Cope	-.05	-.01	.00	-.03	.18	-						
7. ER beh obs-anger	-.04	-.03	-.06	.08	-.01	.06	-					
8. ER beh obs-sadness	-.04	-.15	.08	-.10	-.06	.20	.52**	-				
9. ER beh obs-anxiety	-.08	-.17	-.20	-.17	.18	.39**	.45**	.63**	-			
10. ER beh obs-happiness	-.03	-.05	-.11	-.01	.06	.23	.63**	.66**	.65**	-		
11. KAI-R Total	-.23	.07	-.10	-.04	-.10	.20	.24	.25	.14	.30*	-	
12. EESC PA	.06	.00	.06	.06	-.08	-.28*	.01	-.19	-.28*	-.21	.06	-
13. Family Stress	-.09	.21	.09	.05	-.06	-.21	-.17	.02	-.04	-.01	-.06	-.07

Note: IPAC = Inperparental Positive Affect Congruity; Parent ERC ER = Parent reported Emotion Regulation on the Emotion

Regulation Checklist; CEMS Cope = Child Emotion Regulation Coping on the Children's Emotion Management Scales; Obs ER =

Emotion Regulation measured via behavioral observations; KAI-R = Kusche Affective Interview Revised; EESC PA = Emotion Expressivity Scale for Children-Poor Awareness Subscale. \*  $P < .05$  \*\*  $P < .01$  +  $P < .10$