

ABSTRACT

STELTER, REBECCA L. The Relationships Between Parental Beliefs About Children's Emotions, and Children's Perceptions and Behavior. (Under the direction of Amy G. Halberstadt).

The purpose of the current research was to investigate how parents' beliefs about children's emotions are related to children's outcomes. There were three specific aims of the current research: 1) assess the direct relationship between parents' beliefs about children's emotions and children's engagement during a problem solving discussion, 2) assess the direct relationships between parents' beliefs about children's emotions and children's security in the parent-child relationship and children's perceptions of their parents emotional availability as well as the moderating effect of parents' stress on this relationship, and 3) explore the moderating and mediating relationships between parents' beliefs about children's emotions, children's perceptions of the parent-child relationship, and children's engagement behavior during a problem solving discussion with their parent. Participants were African American ($n = 41$), European American ($n = 4$), and Lumbee Native American ($n = 38$) parents and their 4th or 5th grade children. Contrary to hypotheses, parents' beliefs did not directly relate to children's engagement or children's perceptions of the parent-child relationship. However, parents' stress in the last 24 hours moderated the relationship between parents' beliefs and children's perceptions of their attachment security. The relationship between parents' beliefs that negative emotions are good and children's engagement was moderated by children's security in the parent-child relationship. In addition, parents' reported daily stress from the last 24 hours was related to children's engagement during the problem solving discussion.

**THE RELATIONSHIPS BETWEEN PARENTAL BELIEFS ABOUT CHILDREN'S
EMOTIONS, AND CHILDREN'S PERCEPTIONS AND BEHAVIOR**

by

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Dedication

I would like to dedicate my thesis to my family, especially my parents David and Gail, who have always told me I could accomplish anything I put my mind to and never failed to remind me how proud they were.

Biography

Rebecca Lynn Stelter is from Plano, Texas. She graduated from Plano Senior High School in 2000. She went on to attend Southwestern University in Georgetown, Texas and graduated in 2003 with a Bachelor of Arts degree, cum laude, in Psychology. In 2004, she enrolled in the graduate program in Developmental Psychology at North Carolina State University. She is a member of the Society for Research in Child Development and Association for Psychological Sciences.

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Introduction

The role of parents' beliefs, goals, or expectations in socializing their children has been demonstrated in a plethora of areas, including academic performance (Galper, Wigfield, & Seefeldt, 1997; Okagaki, & Sternberg, 1993), cognitive abilities (Frome & Eccles, 1998), gender schemas (Fagot & Leinbach, 1989), and social functioning (Rubin, & Burgess, 2002). One domain of parental beliefs that has received less attention is the area of emotion socialization. It is likely that parents' beliefs about children's emotions are important mechanisms that inform parents' childrearing behaviors, and subsequently impact children's socio-emotional competence (Dunsmore & Karn, 2001, 2004; Dunsmore & Halberstadt, 1997). The present research examined this likely pathway.

Parents' meta-emotion philosophies

Contemporary theorists and researchers have posited a probable relationship between parents' beliefs and their socialization of emotion. For example, Gottman and colleagues (Gottman, Katz, & Hooven, 1996; Katz, Wilson, & Gottman, 1999; Katz, Windecker-Nelson, 2006) proposed that parents' beliefs and behaviors regarding emotion, that is, their "meta-emotion theories and coaching," are associated with important life outcomes for children, family cohesiveness, the quality of the parent-child relationship, and marital quality. This useful, but broad, theory defines parents' meta-emotion philosophy as the set of thoughts and approach to their own and their children's emotions.

Two types of meta-emotion philosophies have been described, and these are "emotion coaching" and "emotion dismissing" (Gottman et al., 1996). Emotion coaching philosophy is marked by parents' awareness of low intensity emotions in themselves and their child and their use of negative emotions as an opportunity for intimacy and teaching. Parents who provide

emotion coaching also validate children's emotions, assist them in verbally labeling their emotions, and help children problem-solve in emotion eliciting situations. The emotion-dismissing philosophy is characterized by the belief that negative emotions are harmful for children and the motive to change these negative emotions as quickly as possible. Parents' meta-emotion style gives us some sense of the parents' underlying philosophy of emotions, but does not directly tap parents' beliefs about children's emotions or parents' emotion-related socialization behaviors. Dunsmore and Halberstadt (1997) proposed that parents' beliefs about emotion and emotionally expressive behavior work together to help children create self- and world-schemas. Eisenberg, Spinrad, and Cumberland (1998), in their review of the literature, also proposed that parental expression of emotion influences the socialization of children's emotion through a number of pathways; including how children understand the significance of a particular event, as a direct model of emotional expression, and shaping how children feel about themselves.

Since the inception of meta-emotion theory (Gottman et al., 1996), evidence has been accumulating to support the importance of meta-emotion for children and families and how to articulate parents' style of coaching their children's emotions reflects their goals for their children's experience and expression of emotion. A three-year longitudinal study, beginning when the children were 5 years old, supported the theoretical model that parental meta-emotion predicts child outcomes directly and via parenting (Gottman et al. 1996). At time 1, parents' beliefs or philosophy of emotional expression and emotional control, and their feelings, attitudes, and behavior about their children's anger and sadness were assessed through a meta-emotion interview designed by Katz and Gottman (1995). Parenting behaviors were observed during a parent-child interaction task, and the child's regulatory physiology (heart rate, skin conductance)

while viewing emotion-eliciting films was also assessed. Three years later, at time 2, the children's teachers provided information on their behavior problems and peer aggression; mothers completed measures of children's temperament, physical health (illness) and emotional regulation, and all children were given a standardized achievement test. Parental emotional awareness and emotion-coaching philosophy measured at time 1 was directly related to the child's regulatory physiology and to child outcomes including academic achievement and child peer relations via children's emotion regulation abilities.

Maternal meta-emotion philosophy was also important in the relationship between children's conduct problems and their peer relations (Katz & Windecker-Nelson, 2004). Maternal meta-emotion philosophy was assessed through interviews and children were observed in interactions with a close friend. Mothers of children with conduct problems were found to be less aware of their own emotions and used less coaching with their children than mothers of children without conduct problems. Child aggression moderated the relationship between maternal meta-emotion and child peer play such that mother's awareness and coaching of emotion was associated with children's more positive peer play and this was especially strong for nonaggressive children.

Parental meta-emotion was also recently examined in the context of community-dwelling families with low frequency and low severity domestic violence (Katz & Windecker-Nelson, 2006). Parents' overall level of emotion coaching did not differ between families with and without reports of domestic violence. Domestic violence was associated with less fear emotion coaching by fathers but only when the mother reported being the perpetrator of abuse. Parents' emotion coaching was also found to moderate the relationship between domestic violence and child adjustment. When mothers were low in emotion coaching there was a positive relationship

between domestic violence and children's aggression, social withdrawal, and anxiety-depression. When fathers were low in emotion coaching there was a positive relationship between domestic violence and children's social withdrawal.

Clearly, parents' meta-emotion philosophy matters for some child outcomes (Gottman et al., 1996; Katz & Windecker-Nelson 2004, 2006). Meta-emotion philosophy is a broad concept however, which includes both awareness and coaching of emotion. Although the meta-emotion interview does tap into some underlying beliefs that parents have about emotions, it does not directly assess what parents believe about children's emotions and it makes no distinction between beliefs, skills, and behaviors. The meta-emotion theory (Gottman et al., 1996) does not consider specific beliefs about emotions that parents have and how they might differentially influence their parenting behaviors. Without a clear understanding of what different beliefs parents hold regarding their children's emotions it is not possible to determine what specific beliefs lead to various parenting behaviors, which in turn contribute to child outcomes. The current study is examining how parental beliefs about children's emotions contribute to children's behaviors.

Parents' beliefs about children's emotions

Research has begun to disentangle parents' beliefs about emotion from other parental constructs such as various types of skill and behavior (Halberstadt, Dunsmore, et al., 2007). Much of the research in this new area has focused on several specific beliefs about children's emotions that parents are thought to hold to varying degrees (Dunsmore & Karn, 2001; Halberstadt, Dunsmore, et al., 2007). For example, parents may differ in their beliefs about the value of certain emotional experiences or the expression of these emotions. They may also hold different ideas about the role of parents in socializing their child's experience and expression of

emotion. Exploring the influence of parental beliefs on children's perceptions of the parent-child relationship and children's behaviors is the primary goal of the current study.

In the following discussion I will first describe the construct of parents' beliefs and review the relevant literature. Next, I will discuss two other variables of interest to the current study: children's attachment security and perceptions of parents' emotional availability. Then, I describe the dependent variable of interest, children's engagement. Next, I briefly introduce the constructs of stress and parents' time with child as potentially important moderating variables. Following that I present an overview of proposed model. Finally, I describe the aims of the current study and the specific hypotheses related to these aims.

Beliefs about teaching children emotion language

Mothers' beliefs about socializing children's emotion language (whether children were able to control or talk about their emotions) were positively related to children's emotion understanding (Dunsmore & Karn, 2001) and emotion script knowledge over time (Dunsmore & Karn, 2004). Also, mothers' beliefs about emotion language development were related to mothers' and children's emotional utterances during a mother-child discussion (Cervantes & Seo, 2005). Specifically, mothers who believed children were developmentally ready to deal with negative feelings were more likely to endorse emotion verbalization and less likely to promote emotional control. Finally, when both mothers and teachers devalue teaching preschoolers about emotions, children use more passive emotion coping strategies (Denham, Grant, & Hamada, 2002). Thus, mothers' beliefs about their role in socializing children's emotion language appear to have important outcomes for children's emotional development.

Beliefs about emotions as dangerous or something to be valued

Following the terrorist attacks in the US in 2001, parents' beliefs about the value of emotion were associated with children's greater use of emotion-focused and support-seeking coping strategies, whereas parents' belief about emotions as dangerous and something to be avoided was associated with children's greater use of avoidance and distraction responses (Halberstadt, Thompson, Parker, & Dunsmore, 2007). When parents value emotion, their children may be more likely to engage with their parents by seeking support from them to cope with their intense emotions following a terrorist attack. In the current study, parents and children engaged in a discussion of issues that they disagree about, which was designed to elicit some emotion from both parent and child. I predicted that parental value for emotion would be associated with children's greater engagement in an emotion-eliciting problem solving discussion. Further, parents' belief that emotions are dangerous would be associated with children who avoid participating in the problem solving discussion.

Mothers' beliefs about children's emotions are also associated with mothers' and children's interpretations of typical conflicts between parents and children (Halberstadt, Duff, Dunsmore, Beale, Cox, & Miller, 2005). Mothers' belief in the value of emotion was positively associated with children's ratings of the parents' behavior during a child-parent conflict as appropriate and with children's ratings that two friends in a child-peer conflict would remain friends following the conflict. Mothers' belief that emotions are dangerous was negatively associated with their ratings that the reactions of the parent and child in the conflict were appropriate and with parents' higher ratings that the conflict would have implications for the relationship between the parent and child over the next week. Mothers' belief that strong emotions in parenting are normal was related to ratings of the parent's and child's emotions in

the conflict as appropriate. In sum, mothers' beliefs appear to guide their own and their children's interpretations of children's conflict situations with parents and peers. In the current study, I predicted that children whose parents value positive and negative emotion would be more likely to engage in a problem solving discussion with their parent, knowing that it will not change their relationship if they have some conflict.

Inherent in the concept of parents' beliefs about children's emotions is the idea that these beliefs represent a deep-seated interpretive schema about the world and are seen at the level of one's implicit beliefs (Dunsmore & Brown-Omar, 2005; Dunsmore & Halberstadt, 1997). To assess the relationship between parents' implicit and explicit beliefs about children's emotions, mothers and fathers of 9- to 10- year old children completed the Beliefs About Children's Negative Emotions (BANE) questionnaire (Halberstadt, Dunsmore, McElwain, Eaton, & McCool, 2001). They also participated in two computerized reaction time tasks (Dunsmore & Brown-Omar, 2005). In one task, participants judged emotion-related states as good, bad, or neutral and in the other they judged their power, or lack thereof to control (i.e. cause, prevent, affect) an emotion-related situation. Parents' beliefs about children's negative emotions were associated with their own and their children's judgments about emotion-related stimuli and their speed in making those judgments. Parents who believed emotions are dangerous were slower at judging whether they have power in emotion-related situations and that emotional states are neutral compared to parents who did not believe emotions are dangerous.

Parents' beliefs were also related to their children's speed of reaction to emotion-related stimuli (Dunsmore & Brown-Omar, 2005). Children whose parents believed that emotions are good had slower judgments that emotional states are bad than children whose parents believe that feeling and showing emotions is dangerous. Evidence regarding the implicit nature of parents'

beliefs about children's emotions provides support for this construct as representing a pervasive philosophy that operates at the level of implicit attributions. These implicit cognitive processes, which are derived from parents' beliefs about their children, are thought to in turn influence their parenting practices. Thus, it seems that children interpret their parents' behaviors, which provide them with a schema of their relationship with their parent. Children's schema or mental framework of their parent-child relationship is thought to be reflected in children's perceptions of the parent-child relationship and influence children's behaviors.

Previous research on parents' beliefs about children's emotions has demonstrated that different beliefs lead to different outcomes. In the current study, I predicted that parental beliefs about children's emotions would relate to children's perceptions of the parent-child relationship and child behavioral outcomes.

Mechanisms of communication for parental beliefs

Four pathways have been suggested through which parents' beliefs about emotions are communicated: parental reactions to children's emotions, discussion of emotion, expression of emotion, and creating niches (Eisenberg, Cumberland, & Spinrad 1998; Eisenberg, Spinrad, & Cumberland 1998; Fredrickson, 1998; Parke & McDowell, 1998). Parental reactions to children's emotions provide important opportunities for emotion socialization. Discussion of emotion between parent and child can occur in a variety of contexts such as a part of parents' reaction to their child's emotions. Some evidence has already been presented above, regarding the role of parental beliefs on parents' discussion of emotion (Cervantes & Seo, 2005).

Depending on the context of the situation, parents are likely to discuss emotion in very different and important ways and these ways socialize children about how emotions are to be discussed. Parental expression of emotion influences the socialization of children's emotion through a

number of pathways; including how children understand the significance of a particular event, as a direct model of emotional expression, and shaping how children feel about themselves. The final pathway is niche building (Parke & McDowell, 1998), whereby parents regulate their child's opportunities to learn about emotions. Parents can do this in several ways such as by intentionally providing experiences where children are exposed to different kinds and intensities of emotional experiences. When parents encourage children to play with peers outside of the family this also exposes them to more opportunities to learn about emotions. Parents' rules about the kinds of entertainment that children are allowed to view or participate in will also lead to different emotional experiences (Houle & Feldman, 1991). Parental beliefs are likely to operate via these four pathways, which together comprise the parental system for the socialization of emotions in children. Obviously parents' emotion-related socialization behaviors are important mechanisms for understanding how their beliefs about emotions may be communicated to and interpreted by children. The focus of the current study remains, however, on the importance of parents' beliefs as the foundation for parents' emotion-related socialization practices and not a direct examination of parents' behaviors.

Child's role in development

The socialization process is not a unidirectional process through which the parents' beliefs are inculcated in children. There must also be a variety of processes on the children's side of the equation that leads them to accept parental socialization messages. Developmental psychology has long recognized the active participation of children in their own socialization.

Within social learning theory, there is evidence that children are actively processing social models to determine what aspects of behavior to imitate. For example, in the classic Bobo doll study, children did not indiscriminately model all adults; rather, they were more likely to

imitate same-sex models, and they also were more likely to imitate behaviors that were more stereotypical for their sex (Bandura, Ross, & Ross, 1961). The cognitive theories of developmental psychology have also long acknowledged the importance of children actively participating in their cognitive and social development. Piaget dubbed the developing child an active little scientist, who constructs knowledge based on his/her new experiences and messages received (Piaget, 1983).

One domain of the child's world that is particularly important for development is the parent-child relationship. The construction and maintenance of this relationship requires the contribution of both partners. How both parents and children perceive the others' behaviors can impact the quality of this relationship. In a study of parents' perspectives of parents' and children's contributions to their relationship, parents reported specific behaviors that they perceived their children contributed to strengthening, damaging, or repairing their relationship (Harach & Kuczynski, 2005). For example, complying with parent requests and having considerate conversations and interactions were reported by parents as helping to strengthen their relationship, whereas not complying with parents' requests or challenging their requests damaged the relationship by creating tension.

These research traditions emphasize the active role of children in interpreting messages that are received from their environment in order to make sense of the world and to learn what behaviors are appropriate. Given the dearth of research in the area of children's meaning making within the context of emotional socialization, it is appropriate to consider what is relevant regarding children's acceptance of parents' messages about emotion. Based on research on attachment, I propose that children's sense of security about the parent-child relationship and their perceptions of their parents' emotional availability are important pathways through which

we can understand how children are interpreting the emotion socialization messages of their parents.

Attachment security

Classic attachment theory provides a very useful framework for understanding the parent-child attachment relationship. Secure attachment is thought to represent an affective bond, which is usually promoted by parents' sensitivity to their children's needs and feelings, and which provides children with a close emotional relationship and a secure base with which to explore their environment (Bowlby, 1969). Through this relationship children also develop a mental schema of their selves, of their attachment figure, and of relationships in general.

The attachment relationship in infants has been well documented especially through the use of the strange situation paradigm (Bowlby, 1982). However, our understanding of this relationship is not as complete for middle childhood and beyond, partly as a result of measurement issues (Ainsworth, 1990). There is increasing interest for understanding attachment relationships in childhood, adolescence, and adulthood and the developmental changes that occur throughout the lifespan. Whereas some aspects of the attachment relationship remain the same, others may change in significant ways.

The nature of the attachment relationship in middle to late childhood is distinguished by the degree to which children perceive their parents are responsive, available, and open to communication (Bretherton, 1987). In middle to late childhood children continue to view their parents as a secure base from which to explore and as a source of comfort during times of stress. There are, however, some distinctions between attachment in infancy through early childhood and attachment in middle to late childhood. The frequency and intensity of attachment behaviors such as maintaining physical proximity to the parent become less important (Ainsworth, 1990).

Because the frequency and intensity of attachment related behaviors decreases throughout childhood it is important to assess children's perceptions of security in the parent-child relationship beyond middle childhood. In the current study of children in late childhood (9-10 years old), children's perceptions of the parent-child relationship were hypothesized to allow children to maintain engagement with their parent during the discussion of potentially stressful, emotion-eliciting topics.

The Security Scale (Kerns, Klepac, & Cole, 1996) is a measure designed to assess attachment in middle childhood through early adolescence. There are three aspects of the attachment relationship that this measure is designed to assess: 1) the child's perceptions that the parent is responsive and available, 2) the degree to which the child relies on the parent in times of stress, and 3) the ease and interest of the child in communicating with their parent. Children's sense of security in the parent-child relationship is thought to be an important component for understanding children's perceptions of the parent-child relationship and was measured in the current study.

Emotional availability

The broad concept of attachment seems to encompass all good things in the parent-child relationship (Waters, Corcoran, & Anafarta, 2005). As with the broad concept of meta-emotion, it is useful to distinguish between some of the specific components of a broad construct like attachment, so as to know which components are more important for different outcomes. One aspect that appears to be important is that of emotional availability. Emotional availability has been described as the "connective tissue of healthy socioemotional development" (Easterbrooks & Biringen, 2000, p. 123). Inherently, it is a relational construct between parent and child that includes characteristics and behaviors of both parent and child, namely parental sensitivity,

nonintrusiveness, and child responsiveness and involvement with the parent (Biringen & Robinson, 1991). Parents who are emotionally available to their child are thought to create an interdependent relationship between the parent and child. Interestingly, the concept of emotional availability originated in research on the negative effects of parents' emotional unavailability. For example, when mothers were instructed to simulate emotional unavailability by looking depressed and remaining still-faced, maternal emotional unavailability was more distressing to infants than mothers' physical absence (Field, 1994; Field, Vega-Lahr, Scafidi, & Goldstein, 1986).

Emotional availability is conceptually (Bretherton, 2000; Emde, 2000) and empirically (Aviezar, Sagi, Joels, & Ziv, 1999) related to attachment, being most closely related to the maternal sensitivity aspect of attachment. Current theory of emotional availability asserts that it represents a feature of sensitive caregiving, which may influence infant affect regulation (Field, 1994) and affect sharing (Emde, 1989), as well as the establishment of secure attachment (Aviezer et al., 1999).

To date, a great deal of research within the domain of emotional availability has been dedicated to refining observational and questionnaire measures of this construct and assessing gender differences. Early emotional communication in mother-daughter and mother-son dyads tends to be different with regard to mother's gender-related expressions of autonomy and closeness in relationships (Biringen, Robinson, & Emde, 1994; Robinson, Little, & Biringen, 1993). More recent work suggests that for both daughters and sons, fathers are less emotionally available than mothers (Lovas, 2005).

There is some evidence that child outcomes are associated with emotional availability in the infant-parent relationship. In a study of mothers and fathers emotional availability and infant

emotional competence, infant emotional competence covaried with changes in parent emotional availability (Volling, McElwain, Notaro, & Herrera, 2002). Longitudinal analysis of these infants revealed that the infant's effortful attention toward the parent mediated the relationship between maternal emotional availability (but not paternal emotional availability) at 12 months and the child's situational compliance at 16 months (Volling et al., 2002). In another study of compliance in toddlers, the best predictor was maternal emotional availability (Lehman, Steier, Guidash, & Wanna, 2002).

Optimal parental emotional availability depends on the developmental level and needs of the child (Biringen & Robinson, 1991). Much of the emotion availability research focuses primarily on the infant-parent relationship, but researchers are beginning to venture into childhood and adolescence (Easterbrooks, Biesecker, & Lyons, 2000; Lum & Phares, 2005). To assess children's perceptions of their parents' emotional availability, Lum and Phares (2005) developed a self-report measure for children as young as nine years old. In middle/late childhood and adolescence, children's perception of their parents' emotional availability is thought to play a significant role in the quality of the parent-child relationship. Children's perception of parental emotional availability may also have implications for their social and emotional competence. Regardless of the child's developmental level, it seems important for the child to perceive the parents' behaviors as sensitive, warm, supportive, and nonintrusive. Children's perceptions are believed to be representative of parents' actual behaviors and in some cases children's perceptions may be more important than parents' actual behaviors. However, assessing parents' actual behaviors remains a future objective. For children in middle childhood approaching adolescence it may become more important to perceive parents as nonintrusive but still supportive, giving children the opportunity to explore their expanding world with a greater sense of independence.

One of the aims of the current study was to assess late childhood children's perceptions of their parents' emotional availability as an important component of the parent-child relationship. It is also helpful to note that the constructs of attachment security and parents' emotional availability are thought to be fairly similar in terms of their relationships with various other constructs. Therefore, I am not predicting anything different for the relationships between security and emotional availability and children's outcomes.

Child engagement

Problem solving or conflict discussions (e.g. Beaumont & Wagner, 2004; Gentzler, Contreras-Grau, Kerns, & Wimer, 2005; Montemayor, Eberly, & Flannery, 1993) provide an excellent method for observing the processes of parent-child relationships in a situation that is very common for many families. Parent-child conflicts are typically about everyday issues such as the child's room, chores, activities, homework, and household routines (bedtime) (Smetana & Gaines, 1999). Beginning in middle childhood, conflict over everyday issues such as bedtime is one way in which children in the U.S. may begin to assert their autonomy in the parent-child relationship.

Middle childhood is also an important time in children's development because emotion regulation skills are becoming especially important for children's social adjustment. For example, being accepted by one's peers is a critical aspect of normal development in middle childhood and emotion regulation is a central skill to possess for peer acceptance (Parker & Gottman, 1989). Problem solving discussions require that children are able to engage in a discussion with their parent while regulating their emotions. Children must determine which emotions are and are not best to express as well as express an appropriate intensity of their

emotions in order to convey how important the conflict issue is to them without being too intense.

The atmosphere of the family environment has been proposed to be an important variable fostering children's identity formation (Grotevant & Cooper, 1998) and one way of assessing the family atmosphere is through observations of parent-child discussions. An optimal family environment allows for children's expression of individuality or the opportunity to assert their points of view and express how their opinions are different from others. Open communication of opinions and emotions between parents and children is related to children's positive outcomes including their coping strategies (Gentzler et al., 2005).

In the current study, family atmosphere was assessed through the extent to which children demonstrate engagement during a problem solving discussion with their parent. Engagement includes involvement, interest, persistence in expressing their point of view and responding to their parents' questions and comments.

There are several questions guiding observation of the child's behaviors during the problem solving discussion. First, do parents' various beliefs about children's expression and experience of emotions relate to children's observed level of engagement in conversations about issues of disagreement within the parent-child relationship? Following that, does the level of engagement differ depending on children's perceptions of the parents' emotional availability and their sense of security in the parent-child relationship? In other words, are children's perceived emotional availability and security more proximal predictors of children's engagement in the problem solving discussion than parents' beliefs?

Parental stress and parents' time with child

Children's attachment security and their perception of the parents' emotional availability may in part be influenced by the amount of stress parents have in their daily life and physical presence of their parents during daily routines. There is well-established evidence linking parenting stress and poor child functioning (Crnic & Low, 2002). The determinants of parents' stress may also be an important factor for assessing its impact on parenting behaviors (Deater-Deckard, 1998). Parenting stress may come from a variety of sources, such as job or economic problems, and these sources of stress can impact parent-child relationships. For example, mothers who reported greater workloads or levels of interpersonal stress at work were described by themselves and independent observers as being more behaviorally and emotionally withdrawn (Repetti & Wood, 1997). Thus, the impact of parents' beliefs on children's perceptions of the parent-child relationship may be influenced by the amount of daily stress in parents' lives. For example, when there is more stress, the relationship between parents' beliefs and children's perceptions of their parents' availability may be obscured by the overpowering experience of stress.

Parents often spend time with children during daily routines and rituals, and the maintenance of daily routines and rituals is associated with positive outcomes such as children's health, academic achievement, and parent-child relationship quality (Fiese et al., 2002). Less frequent regular, predictable meals together was also associated with children's poorer subjective well-being and poorer school performance (Luthar & Latendresse, 2005). Mealtime is a common family routine, which can be an indicator of the parents' physical presence in children's daily life and the maintenance of family rituals and routines. Thus, the relationship between parents'

beliefs and children's perceptions of the parent-child relationship may differ depending on amount of time parents spend with their children.

Below I outline the theoretical model, elucidate the aims of the current research, and clarify specific hypotheses about the relationships between the constructs of interest

Description of theoretical model

Figure 1 illustrates the theoretical model explored in the current study. I predicted there would be a direct relationship between children's perceptions and their emotion-related behaviors. I predicted that parents' beliefs about children's emotions would be directly related to children's sense of security in the parent-child relationship and their perceptions of parental emotional availability. In addition, the amount of time parents report spending with their child and their reported stress would moderate the relationship between parents' beliefs and children's perceptions of the parent-child relationship. Finally, the relationship between parents' beliefs and children's emotion-related behaviors would be mediated and/or moderated by children's perceptions.

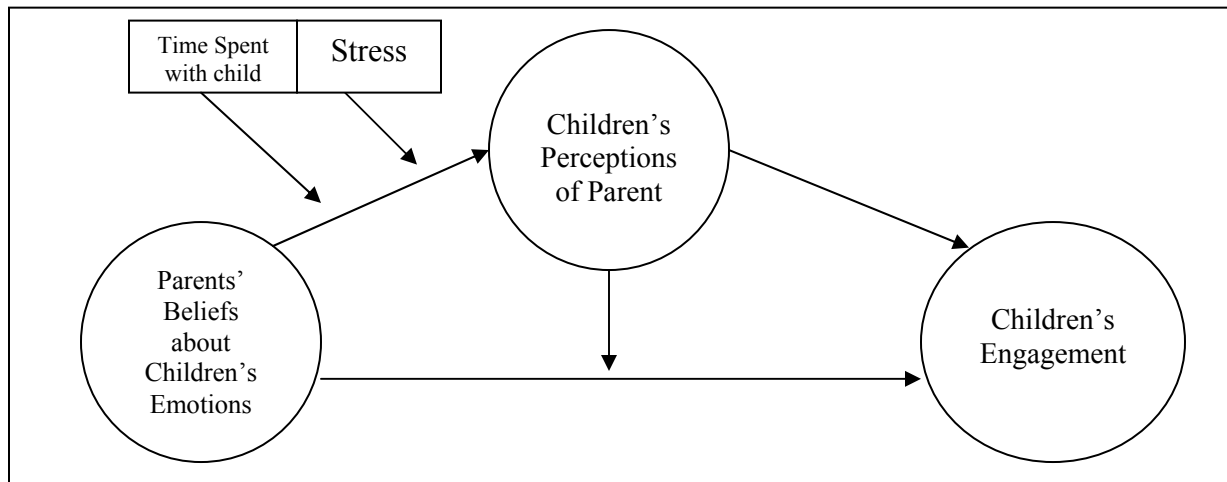


Figure 1: Theoretical Model

Aim 1: Parental beliefs and children's behaviors

My first aim is to examine the relationship between parents' emotion-related beliefs and children's engagement during an emotion-eliciting problem solving discussion. Parents' emotion-related beliefs will be assessed using the new Parents' Beliefs About Children's Emotions (PBACE) measure (Halberstadt, Dunsmore, et al., 2007), which was developed to measure parents' underlying beliefs about how children experience and express emotions. These underlying beliefs are thought to guide parents' socialization behaviors in regards to children's emotional development. Previous factor analysis of the PBACE questionnaire produced four subscales related to parents' beliefs about the value of children's emotions: positive emotions are good, negative emotions are good, all emotions are bad, and emotions just are (Halberstadt, Dunsmore, et al., 2007). Factor analysis also produced a subscale assessing parents' beliefs about showing contempt toward their children's emotions and a subscale assessing parents' beliefs about children's ability to use their emotions to manipulate (Halberstadt, Dunsmore, et al., 2007).

The first two subscales (positive emotions are good and negative emotions are good) indicate parents' value for emotions, in one case the value of experiencing and expressing positive emotions, and in the second case, the value of experiencing and expressing negative emotions. The third subscale (emotions are bad) examines the parents' beliefs that *devalue* emotion – that emotions are problematic, dangerous, an imposition on others. These might be thought to be in opposition to valuing emotions, but in fact, have been independent in earlier research (Halberstadt, Thompson, et al. 2007) and in the factor analyses of this new measure. The fourth subscale (emotions just are), assess the belief that emotions are neither valuable nor threatening but that they are just a part of life. The fifth subscale (contempt), measures the extent

to which parents believe that it is appropriate to show contempt toward children's emotions as an effective way of controlling their emotions such as putting down children's feelings. The final subscale (manipulation) indicates parents' belief that children can use their emotions to manipulate as a way of getting what they want.

Given the findings discussed above regarding relationships between parents' beliefs and children's behaviors such as emotional utterances (Cervantes & Seo, 2005), coping strategies (Denham et al., 2002; Halberstadt, Thompson, et al., 2007), and interpretations of conflict (Halberstadt et al., 2005), I hypothesized a direct link between parents' beliefs about the value of emotions and children's behavior. Specifically, I predicted that parents who believe positive emotions are good would have children who are more engaged in the conflict discussion (e.g., seeking support, requesting and providing information, and going along with the other) than parents who do not believe positive emotions are good. Parents who believe negative emotions are good would also have children who are more willing to engage in the conflict discussion than parents who do not believe that negative emotions are good. Children whose parents believe that all emotions are bad would be less engaged in the conflict discussion than children whose parents do not believe all emotions are bad. I had no predictions regarding parents' beliefs that emotions just are.

Thus far, there has been little research examining the influence of parents' expression of contempt or beliefs about using contempt toward their child's emotions on children's outcomes or behaviors. However, showing contempt toward one's spouse has emerged as the single best predictor of whether a couple will separate or divorce (Gottman, 1994). Contempt may have a similar negative influence on the parent-child relationship. In a study of nonverbal approach and avoidance behaviors in adolescents, parents and their older adolescents (14-16 years old)

displayed more avoidance behaviors toward one another in the form of contempt than parents with preadolescents (7-10 years old) and early adolescents (11-13 years old) (Kalhbaugh & Haviland, 1994). Parents' beliefs about showing contempt for their children's emotional experiences and expressions includes the idea that making fun of or ridiculing children is a way to get them to change their behavior in the future. I predicted that children of parents who believe that it is appropriate to show contempt for their children's emotions would be less engaged in the conflict discussion than children of parents who do not have this belief, because they anticipate and wish to avoid their parents' contempt toward their behaviors.

Finally, I examined parents' beliefs about children's use of emotions to manipulate and get what they want. I did not have any specific hypotheses about how parents' beliefs about children's use of manipulation will be related to children's behaviors but I did predict it would be related to children's perceptions of the parent-child relationship, which I discuss below

Aim 2: Parents' beliefs and children's perceptions

Parents' beliefs about their children's emotions may influence children's perceptions of the parent-child relationship. Thus far no studies have investigated how parents' beliefs about children's emotions impact the quality of the parent-child relationship. Previous research assessing parents' beliefs about children's emotions has examined how these beliefs impact children's outcomes such as coping skills (Halberstadt, Thompson, et al., 2007). Research on parents' meta-emotion philosophy has focused on how it is related to children's regulatory physiology, emotion regulation abilities, and child outcomes (Gottman et al., 1996). How children make meaning of the parent-child relationship and interpret their parents' behavior is one way that children play an active role in their development. Children's schemas about their selves and their world, including their schemas about the parent-child relationship are thought to

be influenced by parents' beliefs about emotion and emotionally expressive behavior (Dunsmore & Halberstadt, 1997). Following this, I predicted that parents who value emotional experience and expression in their children would have children who feel a sense of security in the parent-child relationship and who perceive their parents as being emotionally available to them.

Specifically, I predicted that children whose parents value positive emotional expression and experience would have a greater sense of security and perceive their parent as being more emotionally available than children whose parents do not value positive emotions. Parents who believe that negative emotions are good would have children who have a greater sense of security in the parent-child relationship and perceive their parent as being high in emotional availability compared to parents who do not believe negative emotions are good. When parents believe that all emotions are bad, their children would have a lower sense of security in the parent-child relationship and perceive their parents as less emotionally available than parents who do not believe all emotions are bad. Finally, parents who believe emotions just are a part of life would have children who have a greater sense of security and perceive their parents as emotionally available compared to parents who do believe that emotions just are.

Regarding the two other parental beliefs that are thought to impact children's perceptions of the parent-child relationship, I predicted parents who believe in showing contempt for children's emotions would have children who have a lower sense of security in the parent-child relationship and perceive their parent as being less emotionally available than children whose parents do not believe in showing contempt for children's emotions. Finally, parents who believe children do use emotions to manipulate others would have children who perceive their parent as being less emotionally available than parents who do not believe children use emotions to manipulate others. Perhaps parents feel the need to distance themselves from their children so

they are not manipulated. This distancing is then interpreted by children to mean that their parent is not emotionally available to them.

In addition to the hypothesized direct relationship between parents' beliefs and children's perceptions, the amount of time parents report spending with their child and their reported short term stress may influence children's perceptions. It could be that parents with high levels of daily stress have less energy and emotional support left over at the end of the day to offer to the child (Repetti & Wood, 1997). Highly stressed parents may also be less resilient in the face of children who are more negative or needy emotionally and will have less patience with them, which could in turn be perceived by the child as being less emotionally available or sensitive to their needs.

The amount of time parents spend with their children may also be related to children's perceptions of their parents' emotional availability. It is unknown how the simple effect of a family ritual such as dinnertime relates to sense of security in the parent-child relationship and children's perceptions of their parents' emotional availability and thus this relationship was assessed in the current study.

Parents' levels of daily stress and the amount of time parents spend with their children may also be related and pose a multiple risk to children. Parents with high levels of stress who spend less time with their children may be perceived as being significantly less emotionally available than parents who either have high levels of stress or spend less time with their children (Fiese et al., 2002)

The current study examined the moderating effects of parental stress and the amount of time parents spend with their child on children's sense of security in the parent-child relationship, perceptions of parents' emotional availability, and engagement during a problem solving task. The importance of parents' beliefs about emotions for children's perceptions of the

parent-child relationship may be overshadowed when parents have recently experienced stressful events. The recent occurrence of stressful events in the parent's life could be much more salient to children than their parents' beliefs about emotion when they are reporting on their perceptions of the parent-child relationship. The influence of parents stress would therefore change the relationship between parents' beliefs and children's perceptions (Deater-Deckard, 2004).

In addition, the amount of time parents spend with their children could impact the relationship between parents' beliefs and children's perceptions such that the more time parents spend with their child during daily family rituals, the more children perceive their parents are emotionally available to them and the more secure they feel in the parent-child relationship, regardless of parents' beliefs about children's emotions.

Aim 3: Relationships between parents' beliefs, children's perceptions, and children's engagement

My final aim was to assess the relations between parents' beliefs about emotions, children's perceptions of the parent-child relationship, and children's engagement during an emotion-eliciting discussion.

Mediation

Children's sense of security in the parent-child relationship and perceptions of their parents' emotional availability were thought to impact the child's behavior and function as mediators between parental beliefs and children's behavior. Certain parental beliefs were expected to be related to children's perceptions of their parent, which in turn should contribute to children's behaviors. In full mediation, the relationship between parents' beliefs and children's behaviors would be explained by what the child thinks about the parent-child relationship (Baron & Kenny, 1986). In other words, children's sense of security in the parent-child relationship and

perceptions of their parents' emotional availability would explain a significant amount of the variance in the relationship between parents' beliefs and children's behaviors.

Moderation

Children's sense of security in the parent-child relationship and their perceptions of their parents' emotional availability were also thought to impact the children's behavior and function as a moderator between parental beliefs and children's behavior. I hypothesized that the relationship between parents' beliefs and children's engagement would be different depending on what the child thinks about the parent-child relationship. In other words, the relationship between parents' beliefs and children's engagement would differ depending on whether they have a sense of security in the parent-child relationship and believes their parent is emotionally available (Eisenberg & Valiente, 2004; Power, 2004). For example, children might be more willing to engage in conflict with parents when they trust that things will work out and be successfully resolved. They will be more willing to engage in the conflict if they believe their parent does take into consideration their feelings and input regarding the subject they disagree on (Kochanska, Aksa, & Joy, 2007). They might not escalate conflicts as much as children who do not think their parent is available to them emotionally. They might interrupt less, be less accusatory and more positive overall in the face of disagreement.

In regard to parents' various beliefs about the value of emotion, I predicted that when parents believe positive emotions are good and children have a greater sense of security in their relationship with their parent, children would be more engaged in the problem solving discussion with their parent than parents who believe positive emotions are good, but whose children do not feel secure in their relationship. When parents believe that positive emotions are good, children who perceived their parent is emotionally available would be more engaged in the problem

solving discussion than children who did not perceive their parent is emotionally available. I predicted effects similar to those with positive emotions are good for parents who believe that negative emotions are good, all emotions are bad, emotions just are, contempt, and manipulation. Children's security in the parent-child relationship and perceptions of their parent as emotionally available will moderate, or change the effect of these parental beliefs and result in the child being more engaged in the discussion than when the child does not feel secure in their parent-child relationship or perceive their parent as emotionally available.

Developmental period and populations of interest

The developmental period of interest is middle childhood (between the ages of 9-11), due to children's increasingly complex understanding of self (Harter, 1999), and more advanced emotional development including emotion regulation skills (Murphy, Eisenberg, Fabes, Shepard & Guthrie, 1999; Saarni, 1999). Children of this age are beginning to seek more autonomy from their parents, yet parents still provide an important source for feedback and support. At this age, children's cognitive development is mature enough to minimize the likelihood that their verbal skills will impair their self-report and discussion with their parent.

Fathers play an important role in children's socio-emotional development; however, they are not usually included in research (McDowell & Parke, 2005; Parke et al. 2002). Although one goal was to include equal numbers of mothers and fathers, we were unable to obtain equal representation of mothers and fathers in the current study.

The current study includes two ethnic minority populations: African Americans and Lumbee Americans. Participants from these two groups were especially invited in answer to the call for more cultural diversity in the study of psychology (Hall & Maramba, 2001; Sue, 1999). It

should be noted however, as is the case with research including primarily European-American families, caution should be exercised in generalizing conclusions to other ethnic populations.

For those readers unfamiliar with the Lumbee, they are a tight-knit, family and community focused population. Officially they are not recognized by the federal government as American Indians but they are seeking recognition and are recognized by the state. They have remained relatively unassimilated with other ethnic groups and the majority of the 50,000 Lumbee in the United States live around the small town of Pembroke, North Carolina in Robeson County. The Christian church plays an important role in the life of most Lumbee families and is reflected in Lumbee religion. Family relationships are also extremely important to the Lumbee. Interactions between parents and children are marked by very respectful exchanges. They would accurately be described as a more collectivist culture in that they emphasize the importance of group values and getting along with others (Parker et al., 2007).

There were no hypothesized differences in the relationship between parents' beliefs and children's engagement across ethnicity; therefore African American and Lumbee American participants were combined in all the analyses. Although ethnic and socioeconomic status differences in parenting style have been noted (Caughy & Franzini, 2005; Leyendecker, Harwood, Comparini, & Yalcinkaya, 2005), the variables thought to be key in predicting children's engagement have not been identified as ethnically varied. Recently, mean differences in various parental beliefs about children's emotions have been noted, for example, parents' belief that emotions just are, emotions are bad, and manipulation (Beale, Halberstadt, & Bryant, 2007). I had no reason, however, to predict that the relationships between parents' beliefs, children's perceptions, and children's engagement would be different within these ethnic groups.

In summary, the first aim of the current study is to examine the direct relationship between parents' beliefs about children's emotions and children's engagement during a problem solving discussion. The second aim is to assess the direct relationship between parents' beliefs and children's perceptions of the parent-child relationship, and moderation by parental stress and parents' time with children on that relationship. The third aim is to explore the mediating and moderating relationship between parents' beliefs, children's perceptions, and children's behaviors.

Method

Participants

Participants were 41 African-American, 4 European-American, and 38 Lumbee American parent-child dyads (34 mother-daughter dyads, 34 mother-son dyads, 10 father-son dyads, and 5 father-daughter dyads). The African-American and European-American families were recruited from a medium-sized Southern metropolitan area. Lumbee Americans were recruited from the Robeson County area in North Carolina where a large proportion of Lumbee Americans reside. Recruitment strategies included contacting parents who had participated in previous studies, announcements at local churches and organizations such as the Boys and Girls club, flyers in public locations, attending recreational sports practices such as Pop Warner football, and emails via online web listings and university alumni organizations.

The average age for mothers and fathers was 38.43 (range 28 to 51 years). All parents had completed high school, and many had completed college (mean years of education for mothers = 16.21, $SD = 2.23$, range = 12 to 21 years; and for fathers = 17.20, $SD = 2.45$, range 12 to 21 years). Family yearly income ranged from \$20,000 to \$200,000 with a mean of \$74,000. Children were in either 4th or 5th grade ($M = 9.6$ years, range = 8 to 11 years).

Parent Measures

Parents' beliefs about children's emotions (PBACE)

Parents filled out the 122-item version of the PBACE questionnaire, which is a revised version of the BANE (Parents' Beliefs About Negative Emotions) (Halberstadt, Dunsmore, et al., 2007). The revised version was developed by adding more items including positive emotions and more varied items based on extensive focus group research. The new PBACE was then administered to 1108 parents from three ethnicities (African American, European American, and Lumbee American) (Halberstadt, Dunsmore, et al., 2007). Factor analyses of these data suggest eleven subscales organized into five groupings: Value (four factors), Control (one factor), Guidance (two factors), Developmental Processes (one factor), and Relational (three factors) (Halberstadt, Dunsmore, et al., 2007). See Appendix A. Because this newer version, the PBACE, has been developed with more questions and a more diverse population, it is thought to be a more stable and accurate measure of parents' beliefs about value of emotion, and it also includes contempt and manipulation subscales, which are also of interest for this study.

Six subscales were considered for this study: the four Value subscales, and two of the Relational subscales (Manipulation and Contempt). Only these subscales were considered because they were hypothesized to be most closely related to children's behaviors based on previous research (e.g. Denham et al., 2002; Halberstadt, Thompson, et al., 2007). Parents respond to all items on a 6-point Likert scale ranging from strongly disagree to strongly agree. Within the grouping of parents' beliefs about the value of emotion, there are four distinct factors: 1) positive emotions are good, 2) negative emotions are good, 3) all emotions are bad, and 4) emotions just are. Parents who believe that positive emotions are good agree to statements such as "It is important for children to express their happiness when they feel it". Parents who believe

negative emotions are good endorse items similar to “Expressing anger is a good way for a child to let his/her desires and opinions be known”. Parents who believe that all emotions are bad agree to statements such as “Children who feel emotions strongly are likely to face a lot of trouble in life”. The final distinct factor of parents’ beliefs about the value of emotions is that emotions just are, that is, they are neither good nor bad, but just a part of life. Parents who hold this belief endorse statements such as “Showing emotions isn’t a good thing or a bad thing; it’s just a part of being human”. For each factor, parents’ scores were summed and averaged, with higher scores representing greater agreement with that belief.

Within the Relational grouping are the subscales of contempt and manipulation. The contempt subscale focuses on parents’ belief that it is okay for parents to show contempt for their children’s emotional experiences and expressions. This includes behaviors such as making fun of or ridiculing the child as a way to get them to change their behavior in the future. Included in this subscale are statements such as “Mocking children can be a good way to teach children to change what they are doing”. The manipulation subscale focuses on parents’ beliefs that children’s emotions are manipulative. Parents who believe children use manipulation agree to statements such as “Children show emotions to get what they want”.

The preliminary version of the PBACE (the BANE) questionnaire has shown promising construct validity. For example, parents’ beliefs about both valuing emotion and perceiving emotion as dangerous predicted several types of coping strategies in children after the September 11, 2001 terrorist attacks and children’s overall emotional expression at the one-year anniversary of the attacks (Halberstadt, Thompson, et al., 2007). Parents’ value for children’s emotions predicted children’s beliefs that two friends engaged in a conflict can remain friends following

the conflict (Halberstadt et al., 2005) and the speed of children's judgments that certain emotions are bad (Dunsmore & Brown-Omar, 2005).

Confirmatory factor analyses indicated invariance across three ethnicities (African American, European American, and Lumbee) for five of these subscales (Halberstadt, Dunsmore, et al., 2007). One subscale, positive emotions are good, however, was not invariant across these three ethnicities.

The PBACE has demonstrated good internal reliability (range = .77 for negative emotions are good to .90 for contempt) (Halberstadt, Dunsmore, et al., 2007). The subscales emerged were reliable in all three populations (African-American, European American, and Lumbee American).

Because the PBACE is a very new measure, no behavioral measures of its validity are available yet. However, both discriminant and convergent validity with other questionnaires has been promising. Random subsets of 130 to 200 parents (of the population of 1108 parents) received additional questionnaires. Five questionnaires assessed discriminant validity. Included were the constructs of social desirability (Crowne & Marlowe, 1960), trait anxiety (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983), family expressiveness (Halberstadt, Cassidy, Stifter, Parke, & Fox, 1995), alexithymia (Taylor, Bagby, & Parker, 1992), and emotional ambivalence (King & Emmons, 1990). None of the PBACE subscales were correlated with these theoretically distinct measures.

For convergent validity, measures assessed two constructs: how parents cope with children's negative emotions (CCNES; Fabes, Eisenberg, & Bernzweig 1990; Fabes, Poulin, Eisenberg, & Madden-Derdich, 2002) and parents' reactions to children's positive emotions (PRCPS; Ladouceur, Reid, & Jacques, 2002). Parents' belief that negative emotions are good

was significantly related to the encouragement, $r = .28, p < .001$, emotion-focused, $r = -.12, p < .05$ and problem-focused, $r = .22, p < .001$ subscales of the CCNES. The belief that negative emotions are good was also significantly correlated with the encouragement, $r = .22, p < .05$ subscale of the PRCPS. Parents' belief that positive emotions are good was significantly correlated with the discomfort subscale of the PRCPS, $r = -.15, p < .05$.

Due to the relatively new nature of the PBACE measure, the reliabilities of the subscales used in the current study were assessed using an iterative process. First, the reliability of each subscale was assessed using the original version of each subscale. If the reliability could be substantially improved by deleting items, the appropriate items were deleted and then the reliability was assessed again. This process was repeated until the reliability was as high as possible. The only subscale that was modified from the original version of the subscale was the All emotions are bad subscale. It was reduced from 10 items to 7 items, which resulted in a change in reliability from $\alpha = .73$ to $\alpha = .75$. In the current study the reliabilities for the subscales of interest were: Positive emotions are good (10 items), $\alpha = .94$, Negative emotions are good (12 items), $\alpha = .83$, All emotions are bad (7 items), $\alpha = .75$, Emotions just are (8 items), $\alpha = .79$, Contempt (10 items), $\alpha = .88$, and Manipulation (13 items), $\alpha = .89$.

Dinnertime rituals

Parents were also asked about the typical weekday dinnertime routine for the child participating in the study; including where they usually eat dinner (e.g., home, car, restaurant) and with whom they usually have dinner (e.g., mom and dad, one parent, alone). Parents were instructed to circle all the options that applied for both questions. These two questions were based on a measure used with African-American adolescents (Luthar & Latendresse, 2005). See Appendix B.

Measure of daily stress

To assess the amount of daily stressors, parents completed seven questions adapted from the Daily Inventory of Stressful Events (DISE; Almeida, Wethington, & Kessler, 2002). Parents responded “yes” or “no” to indicate if they have experienced stress in seven different areas of life over the past 24 hours. The total score for all questions was calculated with higher scores indicating more exposure to stress. In addition, they were also asked to determine how typical the last day was compared to other days. Specific types of daily stress reported on the DISE, such as interpersonal tensions and network stressors, have been shown to predict health symptoms and mood, suggesting reasonable construct validity (Almeida et al., 2002). See Appendix C.

Demographics

Parents reported their age, ethnicity, years of education, occupational and socio-economic status, and child's age. See Appendix D.

*Child Measures**Security scale*

The Security Scale (Kerns, Klepac, & Cole, 1996) is designed to tap components of the attachment relationship that reflect the security of attachment in middle childhood. Items are completed by the children to get at their perspectives of this relationship. To complete the measure, children are first asked which of two statements is more like them such as “Some kids find it easy to trust their mom (dad)” BUT “Other kids are not sure if they can trust their mom (dad)”. Once they choose the statement that is more like them, they then determine if this statement is “really true” or “sort of true” for them. The scale consists of 15 items scored from 1 to 4, which are added and averaged to derive the final score. Higher averages represent greater

security in the parent-child relationship. Internal reliability is good; Cronbach alpha generally exceeds .80 and the measure has been validated with 8- to 14-year old children using projective measures of attachment (Granot & Mayseless, 2001) and theoretically related constructs, such as children's perceptions of their competence, self-esteem, and preoccupied and avoidant coping (Granot & Mayseless, 2001). Internal reliability in the current study was $\alpha = .78$. See Appendix E.

Lum emotional availability of parents (LEAP)

The Lum Emotional Availability of Parents (LEAP) assesses parental emotional availability, an element of the parent-child relationship that involves parental responsiveness, sensitivity, and emotional involvement (Lum & Phares, 2005). The LEAP is comprised of 15 items, such as "My mother/father: Supports me, Is available to talk at any time, and Is emotionally available to me". Responses are made on a 6-point Likert scale from 1 (never) to 6 (always). Total scores range from 15 to 90 with higher scores reflecting higher levels of parental emotional availability. An example of the father version is in Appendix F. Reliability in the current study was $\alpha = .89$.

The LEAP was originally validated on an ethnically diverse population aged 9- to 17-years old (Lum & Phares, 2005). The measure is internally reliable, $\alpha = .96$, and reliable over time, correlations range from .81 for fathers over three weeks to .69 over three months (Lum & Phares, 2005). Convergent validity of the LEAP has been examined with measures of parenting behaviors such as the Children's Report of Parental Behavior Inventory – Revised (CRPBI-R) and the Parental Bonding Instrument (PBI). The LEAP correlated positively with acceptance, $r = .79$, and positive involvement, $r = .78$ subscales of the CRPBI-R but was negatively correlated

with rejection, $r = -.62$ and withdrawal, $r = .42$. For the PBI, the LEAP was positively correlated with care, $r = .76$ (Lum & Phares, 2005).

Procedures

Parents and children visited a university laboratory to participate in the current study. All African American families participated at the North Carolina State University lab, which included several pleasantly decorated, spacious rooms with a table in the center of the room. All Lumbee families participated at the University of North Carolina at Pembroke lab, which was comprised of several meeting rooms. The racially mixed group of researchers running the sessions was essentially the same across the two sites, with one exception. At the UNC-P site, a Lumbee professor, who was considered a Lumbee elder by virtue of his educational status and leadership in the community, joined the team. He greeted all families, and was present and visible so as to add his credibility and sense of security to the research project.

Once families arrived and were greeted, the experimenter reviewed the Informed Consent form with the parent while another experimenter went over the Children's Assent form with the child. Following that, parents were moved to a separate room where they completed the parent measures (PBACE, Dinnertime Rituals, DISE- measure of stress) as well as several other measures unrelated to the current study. Please see Table 1 for a summary of parent and child measures. The PBACE was always completed first, followed by the remaining measures, which were counterbalanced. In a separate room, children filled out the Lum Emotional Availability of Parents (LEAP) and the Security Scale along with other measures unrelated to the current study. All child measures were counterbalanced. Interviewers assisted the children by reading each item to the child as the child read along on their sheet. Then the child or the interviewer circled or checked the appropriate answer. All children were interviewed by an experimenter of the

same ethnicity except for Lumbee American children were interviewed by either an African-American or European-American interviewer. Following completion of the questionnaires, the parent and child were re-united to play a game for 15 minutes unrelated to the present research. After playing the game they were then given instructions for the problem solving discussion. The game and problem solving discussion took place in a pleasantly decorated room with a table surrounded by chairs and with video equipment set up behind the table and chairs.

Problem Solving Discussions

The parent and child were asked to discuss at least two different issues in their relationship that they currently disagree about or have difficulties with. This portion of the study began approximately 1 hour into the session. Before the discussion began, the experimenter gave the parent and the child each a piece of paper to write down what they often disagreed about or had difficulties with. A list of topics that are common with this age group (bedtime, after school activities, school) was provided to assist the parent and child in coming up with a topic. This list was derived from the NICHD Study of Early Child Care and Youth Development, and has been used in a number of published studies (e.g., Campbell, Spieker, Burchinal, Poe, 2006; NICHD Early Child Care Research Network, 2005). See Appendix G. If the parent and children both individually chose the same topic, we asked them to discuss and generate another topic of disagreement.

Participants were instructed to discuss what they think and feel about these areas of conflict and to try to resolve these situations with each other, but were also assured that it was not necessary to come to a resolution. They were told to have a discussion for the entire seven minutes and to make time to discuss both topics they had written down. If during the discussion another topic was brought up, they were instructed that they could talk about that topic as well.

They were then left on their own to determine the topic with which they wanted to begin the discussion. At the end of the seven minutes, if a dyad appeared to be well on their way to a positive resolution, the experimenters tried to be sensitive to that and let them continue achieving the goal for a few more minutes. However, most dyads were done with their discussions when the experimenter entered the room after seven minutes.

Following the problem solving discussion, the participants were instructed to have a discussion of favorite or happy times with each other. They were asked to discuss positive events/memories, as it is helpful sometimes to identify positive experiences and good times at the close of what might be a hard set of topics.

Both the problems solving and positive time discussion were videotaped for later coding. Videotaping consisted of one camera recording the parent and another camera recording the child. In addition, a split-screen image in which both the parent and the child's faces could be seen at the same time was recorded by combining the images of both parent and child using a video mixer. This split-screen image was recorded on a DVD in real time while the separate images of parent and child were recorded on mini-digital video tapes. Every attempt was made to make the videorecording as discrete as possible, but the equipment was in the room and visible to the participants. The parent and child were also individually recorded.

Next, the parent and child each completed a questionnaire in which they listed the topics they talked about during the problem solving discussion. They then rated how important each topic was to them on a 6-point Likert scale and how often the topic was an issue in their relationship on a 5-point Likert scale. The last question asked how typical the problem solving discussion was compared to their normal conversations on a 3-point Likert scale. An experimenter assisted the children with completing this questionnaire. See Appendix I.

Participants then engaged in a video viewing task unrelated to the current study. Finally, participants were thanked, and the parents were paid \$25. The children received a certificate of appreciation, a small gift, and were paid \$5. The entire session took approximately two hours.

Coding Children's Engagement

Children's engagement in the problem solving discussion was defined as the extent of their involvement, attention, and persistence in the discussion. The entire problem solving discussion was the unit of analysis so one global code represented the child's level of engagement. Because there might be cross-cultural differences in how children demonstrate their engagement, we asked at least one researcher from each ethnic group to review and comment on the coding scheme to ensure there were no cultural biases.

The coding scheme described below is adapted from the NICHD Study of Early Child Care and Youth Development in which 5th grade children and their parents (mother and father separately) participated in a problem solving discussion similar to the one in the current study. In the current study, engagement was defined as having 7 levels. Engagement could range from no involvement in the discussion at the lowest level to persistence in discussion throughout the session at the highest level. See Appendix H for a description of the 7 levels.

There are benefits and consequences of using global coding. Given that the variable of interest is children's engagement throughout the entire problem solving discussion, it was reasonable to make this judgment based on the child's behaviors over the whole discussion period rather than multiple smaller segments of observation. To determine if global and molecular codes would differ greatly, coders assessed children's engagement at one-minute intervals using pilot data from three dyads. Minute by minute coding of child engagement was

consistent over the course of the problem solving discussion and highly similar to a single global code.

Another consequence of using global coding of just the child's engagement is that the parents' engagement in the discussion is not taken into consideration. There may be differences between the parent and child in the level of engagement. Due to the bidirectional nature of the parent-child relationship and the nature of the problem solving discussion, it may be more difficult for a child to be engaged in a discussion if their parent is not engaged, thus children's engagement is likely contingent on their parents' engagement. That does not exclude the possibility the children could not be engaged in the discussion when their parent is not as engaged as them however, the child will probably not reach the highest levels of engagement if their parent is not highly engaged. Thus, there must be caution in interpreting the results without consideration of parents' behaviors.

The quality of the video and sound was very good for all dyads, thereby allowing coders to include children's eye gaze, voice tone, and facial behavior. Two female, African-American, undergraduate psychology majors coded for child engagement. Coders were instructed to consider only the child's involvement in the discussion, regardless of the degree to which the parent was involved in continuing the discussion and creating the persistence. To determine the global score, coders watched the problem solving discussion twice. First, they focused on the degree to which the child stayed on topic, and the detail, depth, and speed of the child's responses. During the second pass through the discussion, they focused on the child's nonverbal behaviors, including movement and eye contact. The entire problem-solving discussion was coded regardless of length as the discussion was considered the unit, and families, for the most part, decided when their discussion was complete. Coders were trained on

the coding scheme using pilot data and were 100% reliable, with a 1-point allowance, for 3 sessions. Therefore they proceeded with coding. During coding, percent agreement was occasionally calculated to avoid observer drift and percent agreement was never less than 90%. When there was a discrepancy between the two coders it was resolved through discussion. Ultimately, there was a 73% perfect overlap between the two coders and percent agreement with a 1-point allowance was 98%. The intraclass correlation coefficient was .89, $p < .001$.

Table 1

Organization of Parent and Child Measures

Construct	Measures	Who	Appendix
Parent Beliefs	PBACE	Parent	A
Moderators			
Time spent with child	Dinnertime	Parent	B
Parental Stress	DISE	Parent	C
Child Perceptions			
Attachment Security	Security Scale	Child	E
Children's Perceptions of Parent's Emotional Availability	LEAP	Child	F
Child engagement	Coded globally on a scale of 1 to 7	Child	H

Results

First, preliminary analyses of the variables of interest are presented. Second, I describe the results related to the hypotheses of Aim 1, assessing the relationship between parental beliefs and children's engagement during the problem solving discussion. Third, I describe the results relevant to Aim 2, assessing the relationship between parents' beliefs and children's perceptions and the moderating effect of parents' stress. Third, I report results related to Aim 3: exploring the relationships between parents' beliefs, children's perceptions, and children's behaviors through mediation and moderation analyses. Finally, I present some results of additional exploratory analyses.

Preliminary Analyses for Parent and Child Measures

Intercorrelations between the four value (positive emotions are good, negative emotions are good, emotions are bad and emotions just are), contempt, and manipulation beliefs (shown in Table 2) demonstrate that the scales are acting fairly independently, but are more related than evidenced in the initial large data set of 1108 parents. Significant correlations emerged for Negative emotions are good with Emotions just are, and Emotions are bad with both Contempt and Manipulation. Because most of the correlations were not strong, and these parental beliefs are theoretically distinct from one another, the subscales were not combined.

Table 2

Intercorrelations Between PBACE Subscales

PBACE Subscale	Positive good	Negative good	Emotions bad	Just are	Contempt	Manipulation
Positive good	--	.22	-.09	.13	.10	-.18
Negative good		--	-.14	.55**	-.03	.03
Emotions are bad			--	.05	.30**	.31**
Emotions just are				--	.17	.13
Contempt					--	.05
Manipulation						--

**p < .01

Means, standard deviations, ranges, and skew for all parent and child measures are presented in Table 3. Data were checked for normality, which is a critical assumption underlying the analyses in this study. Results indicate univariate normality for all measured variables, however, the Dinnertime measure designed to assess the amount of time parents spend with their child had little variability. For the question about where the child typically has dinner, 95% of parents reported the child eats at home. For the question about with whom the child eats dinner, 99% of parents reported the child usually has dinner with the whole family¹. Thus this measure was dropped from further analysis.

During the problem solving discussion, the dyads discussed issues that were important to them and issues that they frequently talked about in their families. Eighty-four percent of the parents reported the topics they discussed were important, very important, or most important to them. Ninety-three percent of parents also reported that the topics they discussed were

¹ In 99% of cases parents indicated the whole family by circling a combination of Mom and brothers/sisters and Dad and brothers/sisters

occasionally, sometimes, and often an issue in their relationship with their child. Ninety-eight percent of parents also reported that the problem solving discussion they had was somewhat or very typical compared to their normal conversations. Seventy-eight percent of the children reported the topics they discussed were important, very important, or most important to them. Eighty-five percent of children reported that the topics they discussed were occasionally, sometimes, and often an issue in their relationship with their parent. Most children did not indicate how typical the problem solving discussion was compared to their normal conversations with their parent. Parent and child reports of the importance of these topics were not significantly correlated with one another. Parent and child reports of the frequency with which they discuss these topics were significantly correlated, $r = .30, p < .01$. The lack of a significant correlation between parent and child reports of the importance and the low correlation between parent and child frequency reports may be due to restricted range of parent and child ratings. Dyads discussed a variety of topics including bedtime, chores, homework, and getting along with siblings.

Table 3

Means, Standard Deviations, Range, and Skew for all measures

	Possible Range	M	SD	Range	Skew
Parents' Beliefs					
Positive emotions are good	1-6	5.69	.33	4.10-6.00	-1.96
Negative emotions are good	1-6	4.34	.75	2.17-5.83	-.34
Emotions are bad	1-6	3.12	.93	1.00-5.29	-.10
Emotions just are	1-6	5.09	.74	2.88-6.00	-.79
Contempt	1-6	2.08	1.02	1.00-5.50	.83
Manipulation	1-6	4.19	.77	1.69-5.85	-.21
Parents' Stress					
Daily Events	0-7	3.06	1.78	0-7	-.12
Children's Perceptions					
Security Scale	15-60	49.94	6.74	32-60	-.77
LEAP (emotional availability)	1-6	4.82	.72	2.00-4.82	-1.41
Children's Behaviors					
Engagement	1-7	3.85	1.12	1.00-6.00	-.19

Correlational analyses were conducted between parents' beliefs, parents' reported stress, and parent demographic variables (gender, age, years of education, and income). Parent gender, income, and stress were not related to any of the six parental beliefs. However, parent age and years of education were related to two parental beliefs. Parent age was negatively correlated with parents' belief that emotions are bad, $r = -.30, p < .01$, and with parents' belief that children use emotions to manipulate, $r = -.24, p < .01$. Parents' years of education was also negatively correlated with parents' belief that emotions are bad, $r = -.40, p < .01$. Results from *t*-tests indicated there were no differences between the three ethnicities or between parent gender on any of the parental beliefs.

Correlational analyses examined the relations between parents' reported stress and demographic variables (age, years of education, and income) and children's outcome variables. Parent age, years of education, and income were not correlated with children's perceptions of the parent-child relationship or their engagement during the problem solving discussion. Parents' reported stress in the last 24 hours was negatively related to children's engagement during the problem discussion, $r = -.30, p < .01$, indicating that the more stress parents reported experiencing in the last 24 hours, the less engaged their children were during the problem solving discussion. Because none of the parent demographic variables were related to the child outcome variables, they were dropped from further analyses. Parents' reported stress, however, was retained as a potential covariate in analyses predicting children's engagement analyses. Results from *t*-tests indicated there were no differences in children's perceptions of parents' emotional availability, their reported attachment security, or engagement during the problem solving discussion between the three ethnicities or between parent gender.

Results from *t*-tests indicated there were no differences in parents' beliefs about emotions or with children's perceptions of the parent-child relationship by gender. Boys and girls did not differ significantly in their report of attachment security with their parent, or the perception of their parents' emotional availability. Children's engagement during the problem solving discussion with their parent did not differ by gender.

Correlational analyses were utilized to explore the direct relations between parents' beliefs about children's emotions (Positive emotions are good, Negative emotions are good, Emotions are bad, Emotions just are, Contempt, and Manipulation) and children's perceptions about security (Security Scale) and parental availability (LEAP), as well as between parents' beliefs and children's engagement. Results from these correlations indicated that none of the parental beliefs were correlated with children's perceptions of the parent-child relationship or with child engagement during the problem solving task (see Table 4).

Children's sense of security in the parent-child relationship and their perceptions of their parent's emotional availability were significantly correlated, $r = .61, p < .01$. These two measures are thought to assess important aspects of the parent-child relationship that are related but still theoretically distinct and were therefore treated as distinct variables in subsequent analyses².

² To further explore the data, a composite score of the children's perception measures (LEAP and Security Scale) was created. These scores were standardized, summed, and then correlated with parents' beliefs and child's engagement. However, this did not change the results of the correlations.

Table 4

Intercorrelations between PBACE Subscales, Daily Events, LEAP, Security Scale, and Child Engagement

Parent Measure PBACE Subscale	Child Perceptions and Behavior		
	Security Scale	LEAP	Engagement
Positive good	.03	.06	-.14
Negative good	.18	.12	-.04
Emotions are bad	-.16	-.16	-.18
Emotions just are	.17	.19	-.06
Contempt	-.08	.01	-.002
Manipulation	-.12	-.12	-.04
Daily Events	.06	.08	-.30**

** $p < .01$

Aim 1: Parental Beliefs Predicting Children's Engagement

A simultaneous, hierarchical regression was conducted to test the hypothesis that parents' emotion-related beliefs are related to children's engagement during a problem solving discussion, controlling for parent stress. Parent stress was entered into the first step and the parents' beliefs (positive emotions are good, negative emotions are good, emotions are bad, and contempt) were simultaneously entered into the second step. The dependent variable was always children's engagement. Contrary to hypotheses, parents' beliefs that positive emotions are good, negative emotions are good, emotions are bad, and contempt were not related to children's

engagement. Parents reported stress alone accounted for 9% of the variance in children's engagement and remained a significant predictor of children's engagement after the parental beliefs were entered. See Table 5.

Table 5

Simultaneous Regression Models with Parents' Beliefs Predicting Children's Engagement

	Children's Engagement		
	<i>B</i>	<i>SE</i>	β
Predictors			
Step 1			
Stress	-.19	.07	-.31**
Step 2			
Stress	-.18	.07	-.29*
Positive are good	-.41	.39	-.12
Negative are good	-.02	.21	-.02
Emotions are bad	-.27	.14	-.23
Contempt	.07	.13	.06
R^2		.15	

* $p < .05$, ** $p < .01$

Aim 2: Parental Beliefs Predicting Children's Perceptions

Hierarchical regressions were conducted to test the hypothesis that parents' beliefs about children's emotions are related to children's perceptions of the parent-child relationship.

Separate regressions were conducted with parents' beliefs predicting children's attachment security and then parents' beliefs predicting children's perceptions of emotional availability.

Contrary to hypotheses, parents' beliefs about emotions were not directly related to children's perceptions of the parent-child relationship. See Table 6

Table 6

Regression Models with Parents' Beliefs Predicting Children's Perceptions of Attachment Security and Emotional Availability

	Attachment Security			Emotional Availability		
	<i>B</i>	<i>SE</i>	β	<i>B</i>	<i>SE</i>	β
Predictors						
Positive are good	-.55	2.38	-.03	-.02	.25	-.01
Negative are good	.53	1.28	.06	.02	.14	.02
Emotions are bad	-.67	.89	-.09	-.12	.09	-.15
Emotions just are	1.37	1.24	.15	.20	.13	.21
Contempt	-.53	.79	-.08	.03	.09	.04
Manipulation	-1.15	1.05	-.13	-.08	.11	-.09
R^2		.07			.08	

Moderation of Parents' Beliefs Predicting Children's Perceptions

Based on the model presented above (see Figure 1), parents' reported stress in the last 24 hours was thought to moderate the relationship between parents' beliefs and children's perceptions of the parent-child relationship. Regression analyses were used to test the prediction that parents' stress moderated the relationship between parents' beliefs about children's emotions and children's perceptions of the parent-child relationship. To reduce nonessential multicollinearity, all of the independent variables (parental beliefs and parents' stress) were centered (Aiken & West, 1991). An interaction term was created with each parental belief (Positive emotions are good, Negative emotions are good, Emotions are bad, Emotions just are, Contempt, and Manipulation) and parents' stress, resulting in a total of 6 interaction terms. Children's perceptions of their parents' emotional availability was the outcome variable in the first set of regressions and children's attachment security was the outcome variable in the second set of regressions. The main effects for each parental belief and parents' stress were entered in step one. The interaction term was entered in step two. Of the 12 regressions that were conducted to test for moderation, there were three significant moderation effects for children's perceptions of attachment security. None of the interactions were significant for regressions predicting children's perceptions of their parents' emotional availability.

The first significant regression demonstrated that parents' belief that positive emotions are good and parents' stress accounted for 12% percent of the variance in children's perceptions of attachment security. See Table 7. The main effects for parents' belief that positive emotions are good and for parents' stress were not significant. However, the interaction between parents' belief that positive emotions are good and parents' stress was significant, indicating that the

relationship between parents' beliefs that positive emotions are good and children's attachment security was moderated by parents' stress.

Table 7

Regression Analysis Predicting Moderation for Positive emotions are good and Children's Attachment Security (n = 80)

Predictors	<i>B</i>	<i>SE</i>	β
Positive are good	2.18	2.28	.11
Stress	.23	.41	.06
Positive Good*Stress	4.51**	1.43	.35
R^2		.12	

** $p < .01$

To visualize the significant interaction effect, simple regression lines were plotted for low ($-1\ SD$), and high ($+1\ SD$) values of the moderator variable (parents' stress). See Figure 2. A follow-up simple slopes test was then conducted to explore the nature of the significant interaction effect (Aiken & West, 1991; Preacher, Curran, & Bauer, in press). For parents who reported less stress in the past 24 hours, parents' belief that positive emotions are good had a marginally significant negative slope on children's security ($B = -5.84$, $SE = 2.96$, $t(80) = -1.98$, $p = .05$). Thus in situations in which there is little stress, children's experience of security in the parent-child relationship is greater when parents do not believe positive emotions as good. In contrast, for parents who reported greater stress, parents' belief that positive emotions are good had a significant, positive slope on children's security ($B = 10.20$, $SE = 3.81$, $t(80) = 2.68$, $p < .01$). In other words, when parents report more stress in the last 24 hours, children's experience

of security in the parent-child relationship is associated with their parents' belief that positive emotions are good.

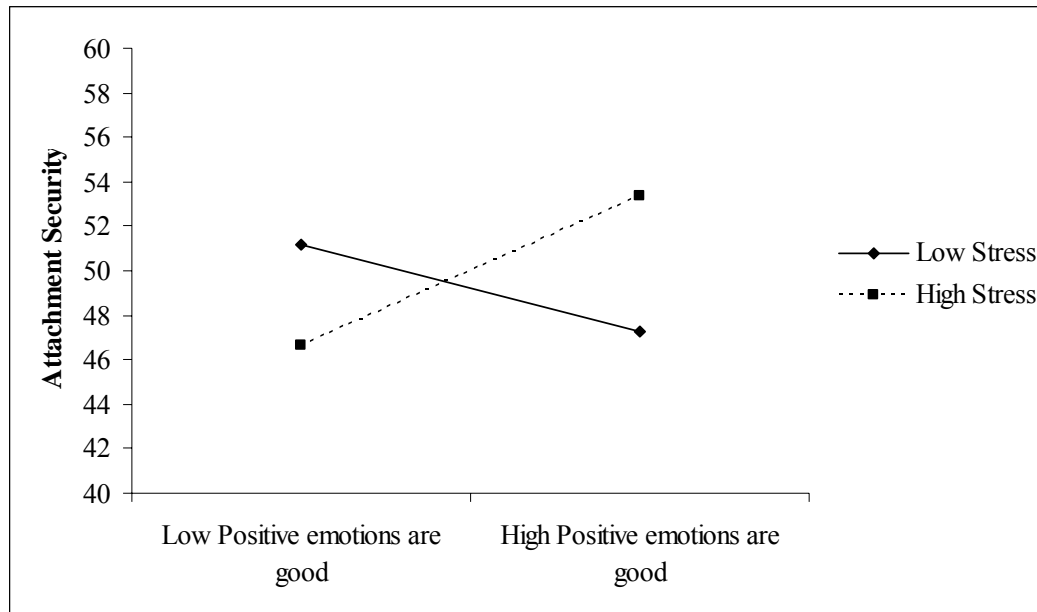


Figure 2: Relationship of parents' belief that positive emotions are good with child attachment security at low and high levels of parent's reported stress.

Results also demonstrated that parents' belief that negative emotions are good and parents' stress accounted for 15% percent of the variance in children's perceptions of attachment security. See Table 8. The main effects for parents' belief that negative emotions are good and for parents' stress were not significant. However, the interaction between parents' belief that negative emotions are good and parents' stress was significant, indicating that the relationship between parents' beliefs that negative emotions are good and children's attachment security was moderated by parents' stress.

Table 8

Regression Analysis Predicting Moderation for Negative emotions are good and Children's Attachment Security (n = 81)

Predictors	<i>B</i>	<i>SE</i>	β
Negative are good	1.51	.96	.17
Stress	-.19	.41	-.05
Negative Good*Stress	1.90**	.58	.35
R^2		.15	

** $p < .01$

To visualize the significant interaction effect, simple regression lines were plotted for low ($-1\ SD$) and high ($+1\ SD$) values of the moderator variable (parents' stress). See Figure 3. A follow-up simple slopes test was then conducted to explore the nature of the significant interaction effect (Aiken & West, 1991; Preacher et al., in press). For parents who reported less stress in the past 24 hours, parents' belief that negative emotions are good had a nonsignificant negative slope on children's security ($B = -1.88$, $SE = 1.42$, $t(81) = -1.32$, $p > .05$). In contrast, for parents who reported greater stress, parents' belief that negative emotions are good had a significant, positive slope on children's security ($B = 4.90$, $SE = 1.38$, $t(81) = 3.55$, $p < .01$). In other words, when parents report more stress in the last 24 hours, children's greater sense of security in the parent-child relationship is associated with their parents' beliefs that negative emotions are good.

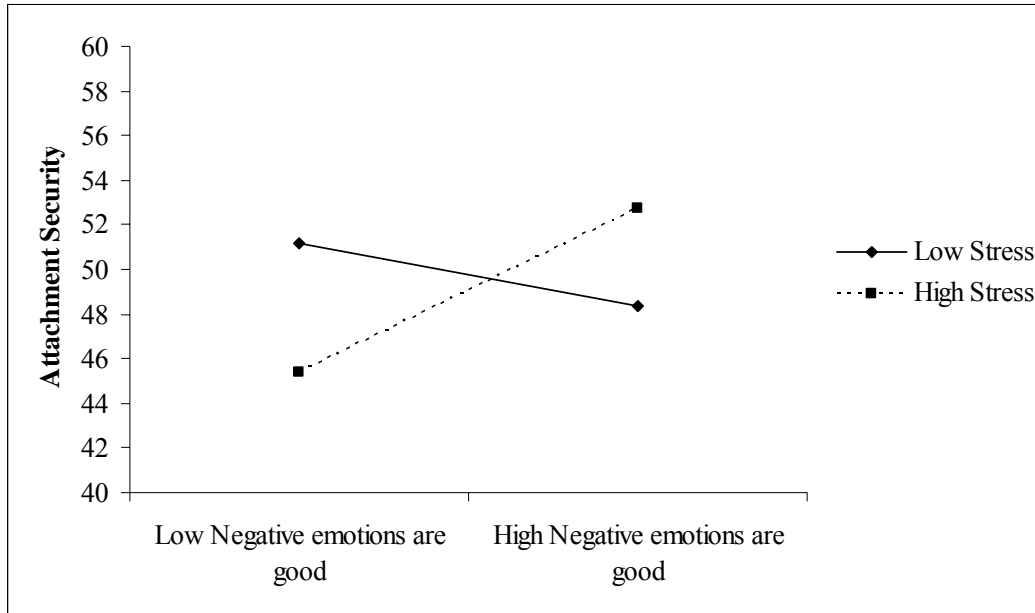


Figure 3: Relationship of parents' belief that negative emotions are good with child attachment security at low and high levels of parent's reported stress.

Parents' belief that emotions just are and parents' stress accounted for 8% percent of the variance in children's perceptions of attachment security. See Table 9. The main effects for parents' belief that emotions just are and for parents' stress were not significant. However, the interaction between parents' belief that emotions just are and parents' stress was significant, indicating that the relationship between parents' beliefs that emotions just are and children's attachment security was moderated by parents' stress.

Table 9

*Regression Analysis Predicting Moderation for Emotions just are and Children's Attachment**Security (n = 81)*

Predictors	<i>B</i>	<i>SE</i>	<i>B</i>
Emotions just are	1.65	1.01	.18
Stress	-.12	.44	-.03
Emotions Just Are*Stress	1.36*	.68	.23
<i>R</i> ²		.08	

* $p < .05$

To visualize the significant interaction effect, simple regression lines were plotted for low ($-1\ SD$) and high ($+1\ SD$) values of the moderator variable (parents' stress). A follow-up simple slopes test was then conducted to explore the nature of the significant interaction effect (Aiken & West, 1991; Preacher et al., in press). For parents who reported less stress in the past 24 hours, parents' belief that emotions just are had a nonsignificant negative slope on children's security ($B = -.77$, $SE = 1.50$, $t(81) = -.51$, $p > .05$). In contrast, for parents who reported greater stress, parents' belief that emotions just are had a significant, positive slope on children's security ($B = 4.08$, $SE = 1.66$, $t(81) = 2.56$, $p < .01$). In other words, when parents report more stress in the last 24 hours, their children's experience of more security in the parent-child relationship is associated with their parents' belief emotions just are.



Figure 4: Relationship of parents' belief that emotions just are with child attachment security at low and high levels of parent's reported stress.

As mentioned previously, parents' reports of the amount of time they spend with their child could not be included in moderation analyses due to the lack of variability in parents' reports. In summary, there was some support for the hypothesis that parents' reported stress in the past 24 hours moderates the relationship between parents' beliefs about children's emotions and children's attachment security.

Aim 3: Relationships Between Parents' Beliefs, Perceptions, and Behaviors

Mediation

Based on the model presented above (see Figure 1), children's perceptions of the parent-child relationship were thought to mediate the relationship between parents' beliefs and children's behaviors, however the steps necessary to conduct mediation were not met (see Baron & Kenny, 1986). Therefore, these analyses could not be conducted.

Moderation

Hierarchical regression analyses were used to test the prediction that children's perceptions moderated the relationship between parents' beliefs about children's emotions and children's behaviors. To reduce nonessential multicollinearity, all of the independent variables (parental beliefs and children's perceptions of security and availability) were centered (Aiken & West, 1991). An interaction term was created with each parental belief (Positive emotions are good, Negative emotions are good, Emotions are bad, Emotions just are, Contempt, and Manipulation) and the child perception variables (LEAP, Security Scale), resulting in a total of 12 interaction terms. Children's observed engagement during the problem solving discussion was the outcome variable. The main effects for each parental belief and the children's perception variable were entered in step one. The interaction term was entered in step two.

Of the 12 regressions that were conducted to test for moderation, there was one significant moderation effect. The results demonstrate that parents' beliefs that negative emotions are good and children's reported security in the parent-child relationship accounted for 7% percent of the variance in children's engagement during the problem solving discussion (see Table 10).

Table 10

*Regression Analysis Predicting Moderation for Negative emotions are good and Child**Engagement (n = 82)*

Predictors	<i>B</i>	<i>SE</i>	β
Negative good	-.12	.16	-.08
Security Scale	.01	.02	.06
Negative Good*Security Scale	-.05*	.02	-.25
R^2		.07	

* $p < .05$

The main effects for parents' belief that negative emotions are good and for children's perceptions of security were not significant. However, the interaction between parents' beliefs that negative emotions are good and children's perceptions of security was significant, indicating that the relationship between parents' beliefs that negative emotions are good and children's engagement during the problem solving task was moderated by children's sense of security in the parent-child relationship.³ Although not a lot of confidence can be generated regarding this finding due to the large number of analyses already conducted, this interaction was examined further in an exploratory way.

To visualize the significant interaction effect, simple regression lines were plotted for low (-1 *SD*), mean, and high (+1 *SD*) values of the moderator variable (children's perceptions of security) (see Figure 5). A follow-up simple slopes test was then conducted to explore the nature of the significant interaction effect (Aiken & West, 1991; Preacher et al., in press). For children

³ Moderation analyses were also conducted using a composite of the Security Scale and LEAP. This resulted in a significant moderation effect similar to the one described above with the relationship between parents' beliefs that negative emotions are good and children's engagement being moderated by children's perceptions of the parent-child relationship.

who reported less security in the parent-child relationship, parents' belief that negative emotions are good had a nonsignificant, positive slope on children's engagement ($B = .23$, $SE = .24$, $t(82) = .95$, $p > .05$). In contrast, for children who reported greater security in the parent-child relationship, parents' belief that negative emotions are good had a significant, negative slope on children's engagement ($B = -.46$, $SE = .21$, $t(82) = -2.23$, $p < .05$). In other words, when children have a greater sense of security in their relationship with their parent, they are more likely to be engaged in the problem solving discussion with their parent when their parent does not agree that negative emotions are good than when their parent does agree that negative emotions are good. This significant effect is not discussed further because there is not an overall pattern in the data indicating that children's perceptions serve as a moderator.

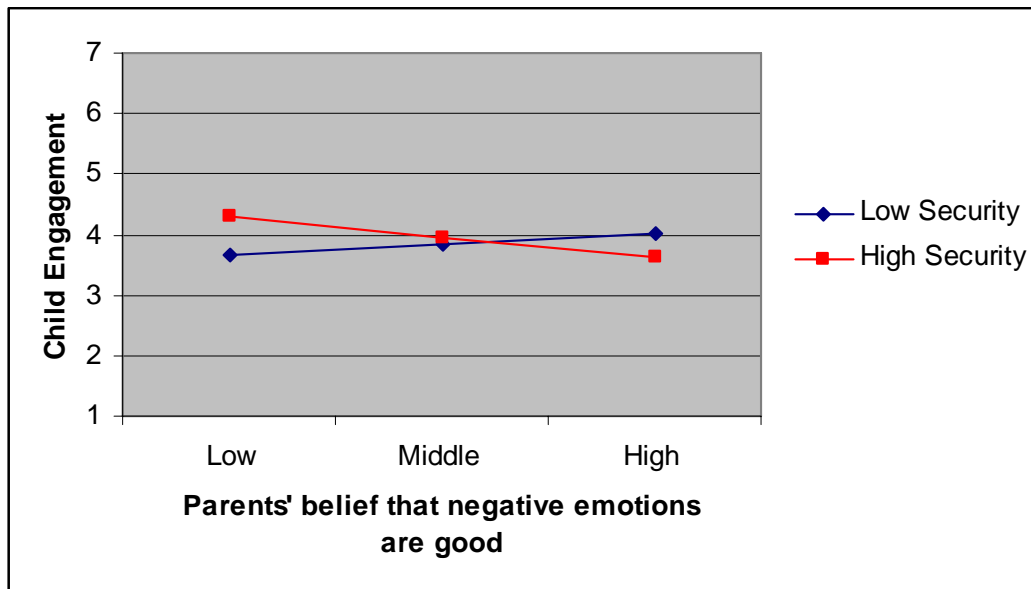


Figure 5: Relationship of parents' belief that negative emotions are good with child engagement at low and high levels of children's reported security.

Additional Analyses

To further explore the data, additional analyses were conducted to take advantage of this ethnically diverse sample and to investigate any potentially unique relationships within the two large minority samples. Even though mean scores on parents' beliefs and children's perceptions and engagement did not differ by ethnicity, it is possible that the relationships between the variables might differ by ethnicity. The lack of support for the main three aims of the study also lead to these additional analyses in an attempt to search for potential reasons why support was not found and to explore potential future avenues of research. Correlational analyses were conducted to assess the relationships among parents' beliefs, children's perceptions, and child engagement for only the African-American participants, and for only the Lumbee participants. For the African-American families, there was one significant negative correlation between parents' belief that emotions are bad and children's engagement in the problem solving discussion $r(39) = -.34, p < .05$. In other words, the more that parents believe that emotions are bad, the less engaged children were in the problem solving task.

For the Lumbee participants, there were several significant correlations. Parents' belief about using contempt toward their child's emotion was negatively related to children's sense of security in the parent-child relationship, $r(37) = -.44, p < .01$, and their perceptions of their parent's emotional availability, $r(37) = -.36, p < .01$. The more strongly parents agree that it is appropriate to use contempt toward their child's emotions, less children perceived their parent-child relationships as secure or their parents as available. Lumbee parents' belief that negative emotions are good was also related to children's sense of security in the parent-child relationship, $r(37) = .36, p < .05$. In other words, the more parents believed negative emotions to

be good; the more secure children felt in the parent-child relationship. However, none of the predictor variables were related to children's engagement.

The relationships among parents' beliefs, children's perceptions, and child engagement were also assessed within child gender with correlational analyses. Even though gender did not correlate with these variables, the relationships between the variables might be affected by gender. Parents' beliefs about using contempt was significantly correlated with girls' (but not boys') sense of security in the parent-child relationship, $r(37) = -.40, p < .05$. The more parents agree with using contempt toward their child's emotion, the less secure girls felt in the parent-child relationship. Parents' belief that emotions are bad was significantly correlated with girls' (but not boys') engagement during the problem solving discussion, $r(37) = -.34, p < .05$. When parents believe that emotions are bad, daughters are less likely to be engaged in the problem solving discussion.

For boys ($n = 45$), there were no significant correlations between parents' beliefs, children's perceptions, and children's engagement. Again, none of the predictor variables was related to boys' engagement.

Correlational analyses were utilized to assess the relationships among parents' beliefs, children's perceptions, and child engagement for mothers and fathers separately. Mothers' belief that emotions are bad correlated significantly with children's engagement during the problem solving task, $r(68) = -.29, p < .05$. Mothers who believed that emotions are bad had less engaged children during the problem solving task.

Fathers' belief that positive emotions are good was significantly related to children's reported security in the parent-child relationship, $r(15) = .77, p < .001$. The more strongly fathers believed that positive emotions are good, the more secure their children were in the father-child

relationship. Fathers' beliefs that emotions just are was significantly related to children's reported security in the father-child relationship, $r(15) = .57, p < .05$, and perception of their fathers' emotional availability, $r(15) = .58, p < .05$. Fathers who believe the emotions are just a part of life had children who were more secure in the father-child relationship and who perceived their father as more emotionally available.

Discussion

First, I summarize findings relevant to each aim of the current study, review past research related to the hypotheses, and propose reasons why some hypotheses were not supported. Next, I discuss the limitations of the current study. Finally, I discuss the strengths of the study and make suggestions for future research.

The relationship between parents' beliefs and children's behaviors

The overarching goal of the current study was to explore the influence of parental beliefs on children's perceptions of the parent-child relationship and children's behaviors. Models of emotion socialization suggest that parents' beliefs about children's emotions are important mechanisms which inform parents' childrearing behaviors and impact children's socio-emotional competence (Dunsmore & Karn, 2001, 2004; Dunsmore & Halberstadt, 1997; Gottman et al., 1996). My first aim was to assess how parents' beliefs about children's emotions related to children's behavior during an emotion-eliciting problem solving discussion. There is no evidence from the current study to suggest that parents' beliefs about children's emotions relate to children's engagement during a problem solving discussion task.

Most other studies assessing the relationship between parents' beliefs and child outcomes have assessed children's self-reported behaviors in response to hypothetical situations (Halberstadt et al., 2005) and self-reported coping behaviors (Halberstadt, Thompson, et al.,

2007). The few studies that have directly observed children's behaviors have focused specifically on children's emotion-related behaviors such as their emotional utterances (Cervantes & Seo, 2005) and emotion knowledge (Dunsmore & Karn 2001; 2004). Perhaps parents' beliefs relate to children's internalized schemas about emotions, but these are not yet reflected in children's behaviors. As children grow older their behaviors may be more representative of parents' beliefs. Parents' beliefs may also only be reflected in children's specific emotion-related socialization behaviors.

The lack of support for the general hypothesis that parents' beliefs would directly relate to children's behavior may also be because the construct of children's engagement is too broad and does not deal as specifically with emotion as the previous research on parents' beliefs and children's behavior. An initial assumption of the research was that problem solving discussions, with their potentially emotional content, provide a good environment for testing the relationship between parents' beliefs and children's behaviors. Although this might not be true, parents' reports following the problem solving discussion do provide evidence that dyads discussed topics that were important to them and were frequent issues in their relationship. This lends some support to the idea that these conversations at least had the potential for testing relationship issues. If so, then parents' beliefs may predict more emotion-related behaviors in their children, but not necessarily all relationship behaviors.

The relationship between parents' beliefs and children's perceptions

Thus far, research in the domain of parents' beliefs about children's emotions has not taken into consideration the role of the child in the emotion socialization process or how the various parental beliefs may influence what children think about their parents. Children take an active role in making meaning of their relationship with their parent and this meaning making

may in turn influence their behaviors (Fincham, Beach, Arias, & Brody, 1998; Fuligni & Eccles, 1993). Two factors that were believed to be important for understanding the child's perspective in the parent-child relationship are their sense of security in the parent-child relationship and their perceptions of their parents' emotional availability. Considering that currently so little is known regarding how parents' beliefs about children's emotions are related to other variables, such as children's perceptions of the quality of the parent-child relationship, the second aim of the current study explored the relationships between parents' beliefs and children's perceptions of the parent-child relationship. Again, there was no evidence to support the hypothesis that parents' beliefs were directly related to children's perceptions of the parent-child relationship.

The quality of the parent-child relationship is likely to be impacted by many different variables; one variable may not take a lion's share of the variance. More proximal variables such as expression of positive emotion (Dix, Gershoff, Meunier, & Miller, 2004), expressions of affection, emotional communication (Leibowitz, Ramos-Marcuse, & Arsenio, 2002), parenting (McDowell, Kim, O'Neil, & Parke, 2002), and discipline style (Deater-Deckard, Dodge, & Sorbring, 2005), may have a more direct relationship with children's perceptions than parents' beliefs.

Moderating effect of stress

Although there was not a direct relationship between parents' beliefs and children's perceptions of their attachment security, parents' stress in the past 24 hours moderated the relationship between several parental beliefs and children's perceptions. Parental stress moderated the relationship between parents' beliefs that positive emotions are good, negative emotions are good, and emotions just are and children's perceptions of attachment security in the parent-child relationship. These effects indicated that for families in which parents reported

higher levels of stress, children reported greater security in the parent-child relationship when their parent strongly believed that either positive emotions are good, negative emotions are good, or emotions just are. When parents are experiencing high levels of stress it seems important for children's perceptions of the parent-child relationship that their parent have beliefs that value the child's experience and expression of emotion.

The stress literature provides evidence for a spillover effect in which parents' stress from a number of different sources outside of the parent-child relationship has an effect on child outcomes (e.g. Dunn, O'Connor, & Cheng, 2007; Ford, Heinen, Langkamer, 2007; Gerard, Krishnakumar, Buehler, 2006; Katz & Gottman, 1996); . For example, in a study of parent-adolescent relationships parents' work overload and stress spilled over into the parent-adolescent relationship (Galambos, Sears, Almeida, & Kolaric, 1995). More parent-adolescent conflict was experienced when father's reported a greater workload and higher stress. In addition, parent-adolescent conflict was highest when both parents were stressed. That parents' values for emotion matter when parents are stressed, suggests that parents may be able to lay important groundwork for their parent-child relationships when they are not stressed, and that certain kinds of beliefs may ameliorate some of the negative impact of stress, at least for a certain period of time.

The current study addressed the potential influence of parents' short term stress on children's perceptions of the parent-child relationship rather than the influence of parents' stress on children's actual outcomes or behaviors and there is evidence that parents' stress is an important variable to take into consideration when assessing children's perceptions of the parent-child relationship. In future research, it may be important to distinguish between the short-term and longer-term stressors that parent's experience. Previous research indicates that parents'

daily stress is independent of their chronic stressors and that both types of stressors have a unique impact on psychological distress (Serido, Almeida, & Wethington, 2004). These different types of stressors may have a unique impact on children's perceptions and outcomes. In addition to this distinction between short-term and long-term stress is also important to note that the current study provides no information about how the parent may be reacting to or coping with their stress. How parents react to daily stressors will likely have an impact on children's perceptions and their behaviors. Future research must address how parents are actually dealing with daily stressors and how their behaviors influence their children.

Serendipitous findings with parental stress

Interestingly, parents' reported experience of stresses in the last 24 hours was related to children's behavior during the problem-solving discussion. Parents' stress accounted for 9% of the variance in children's engagement during the problem-solving discussion, and the more stress parents reported experiencing, the less engaged their child was during the problem-solving discussion. This was an unexpected finding.

That parents' short-term stress is directly related to children's engagement during the problem solving discussion has some interesting implications. If children are aware of their parents' experiences of stress, they may be less engaged in the problem-solving discussion because they are hesitant to discuss with their parent a topic about which they disagree. They may be hesitant, knowing that a conversation about disagreements could produce some strong emotional reactions in their parent, which may further add to their stress (Deater-Deckard, 2004). However, in the current study it is unclear how parents are actually responding to the stressful events and whether they are changing their behavior as a result of these stressful events. Parents' stress may be influencing their behavior during the problem solving discussion, which in turn

affects children's engagement. Children in middle childhood are developmentally at an age where they are more aware of the stress their parents may be experiencing and may understand the implications of parents' experiences of stress (Kuebli, 1994; Larson & Gillman, 1999). Children's developing emotional and social competence may provide them with a better understanding of how their behavior and emotional expression impacts parents. In future research it will be interesting to explore how aware children are at this age of their parents' experiences of stress and how this awareness impacts children's behaviors. This awareness may be one way of tapping into children's affective social competence. For example, children who are more aware of their parents' levels of stress may be better able to judge what emotional messages they send to their parents.

Another possibility is that parents are changing their behavior as a result of these stressful events, and this may in turn affect children's engagement. Thus, whether or not children are aware of parents' stress, or also share the stressful experience, parents' stress may directly impact parents' behaviors, and thus affect children's engagement. That is, parents may themselves be more or less engaged based on how much stress they are experiencing, which has a contagious effect on their children's engagement. Thus, future research will need to consider parents' as well as children's engagement. Also important to note is the question of how parents may be reacting to or coping with their stress. Future research must address how parents are actually dealing with daily stressors and how their behaviors influence their children.

Relations between parents' beliefs, children's perception, and children's behavior

The final aim of the current study was to examine the potential mediating and moderating relationships between parents' beliefs about children's emotions, children's perceptions of the parent-child relationship, and children's behavior during a problem-solving task. Children's

perceptions of the parent-child relationship were hypothesized to mediate the relationship between parents' beliefs about children's emotions and children's engagement during the problem-solving discussion. In other words, children's perceptions of the parent-child relationship were thought to be a more proximal predictor of children's engagement. In the current study, there was no evidence to support this hypothesis.

Children's reported security in the parent-child relationship and their perception of their parents' emotional availability were also predicted to moderate the relationship between parents' beliefs about children's emotions and children's engagement during the problem solving discussion. There was no evidence of a moderating effect of children's perceptions on the relationship between parents' beliefs and children's engagement for all parental beliefs except the belief that negative emotions are good.

Ethnicity and Gender

Although there were no specific hypotheses regarding ethnic differences for the relationships between the main constructs of interest, correlational analyses were conducted within the two minority populations. A few relationships emerged. For African American parents, the belief that emotions are bad was associated with children's lower engagement during the problem solving discussion. Lumbee American parents who believe that using contempt toward their child's emotions is appropriate had children who felt less secure in the parent-child relationship and less emotional availability from their parent. In addition, Lumbee American parents who believe that negative emotions are good had children who were more secure in the parent-child relationship.

Given the small samples for each ethnicity and these unpredicted findings it is important to replicate these effects to establish confidence in them. If they are replicated then it is

important to consider the role of ethnicity in the relationships between parents' beliefs about children's emotion, children's perceptions of the parent-child relationship, and children's behaviors. It may also indicate a need in the future to expect different relationships between variables of children's perceptions and children's behaviors when examining these ethnic groups.

Correlational analyses were also conducted within parent gender and child gender. Parents' belief in using contempt toward their child's emotion was associated with girl's lower security in the parent-child relationship. Parents' belief that emotions are bad was associated with girl's lower engagement during the problem solving discussion. Mothers who believed that emotions are bad had less engaged children during the problem solving task. Finally, fathers who believed that positive emotions are good had children who were more secure in the father-child relationship. Fathers who believed emotions just are had children who were more secure in the father-child relationship and a perception that their father was emotionally available to them. Parents' beliefs about contempt and that emotions are bad seems particularly important for both female children and mothers. Whereas, father's beliefs that positive emotions are good and emotions just are were important for children's perceptions of the parent-child relationship. Gender roles and stereotypes may be influencing parents' beliefs about emotions, which in turn are related to children's perceptions and outcomes. Again, these results were not predicted and do suggest that gender may influence the relationships between parents' beliefs, children's perceptions, and children's engagement.

Limitations

There are several reasons why the current study may have failed to produce some of the hypothesized results. First, the measure used to assess parents' beliefs about children's emotions is relatively new and, although there is accumulating evidence regarding reliability and validity,

there is still much to learn about its psychometric properties. Not all of the subscales have reliabilities as high as would be expected or desired. Parents' beliefs about children's emotions are theorized to be relatively stable over time and future research must address the extent to which this is true.

It is worth noting that the current study found stronger relationships between some of the various beliefs about children's emotions than previously (Halberstadt, Dunsmore, et al., 2007). This may be a result of the highly educated nature of the sample. All the parents who participated indicated that they had completed high school and most had completed some college. This is a highly educated sample in a state where 29% of the population has only a high school degree and 25% of the population has an Associates or Bachelor's degree (US Census Bureau, 2005). Analyses indicated that parents' education was only related to parents' beliefs that all emotions are bad, however, previous research has found differences in parents' beliefs for positive emotions are good, all emotions are bad, emotions just are, contempt, and manipulation based on parents' education (Beale, et al., 2007). The current study may not have found the similar effects of parents' education on parents' beliefs due to the highly educated nature of the sample. The ethnic composition and demographic variables of the current sample is non-representative and therefore cannot be generalized to the general population.

Another potential problem with the measure of parents' beliefs is the somewhat restricted range of parents' scores on various subscales. The Likert scale ranged from one (strongly disagree) to six (strongly agree) and the standard deviations around the means were less than one for all the subscales except Contempt. Without enough variability on these measures it is difficult to find significant relationships with other relevant variables.

A final issue related to the assessment of parents' beliefs about children's emotions is that

parents' beliefs may be more important at the extreme ends of the spectrum. Parents' beliefs about children's emotions must be a good fit with children's characteristics. A bad match between parents' beliefs and expectations for their child regarding emotions and children's emotional experience and expression could result in negative outcomes for the dyad. For example, a parent who strongly agrees that negative emotions are good may have a more positive relationship with their highly emotional child than a parent who only slightly agrees that positive emotions are good.

Second, the child engagement coding may not have been sensitive enough to accurately assess children's involvement. Global coding is more efficient than molecular coding, however, some potentially important information may have been lost by forcing coders forced to assign each child a single global code rather than multiple molecular codes. Word counts alone might have provided a good indicator of children's engagement and involvement in the discussion. In addition, other variables of the child's behavior may be better for examining how parents' beliefs impact children's behaviors such as children's use of emotion language, or their emotional expressiveness.

A third major reason why the hypothesized relationships were not supported is the reliance on parents' self-reported beliefs about children's emotions rather than directly assessing their emotion-related socialization behaviors. It is very likely that parents' self-reported beliefs about emotions are not always communicated through their behaviors such as their discussion of emotion, reactions to children's emotions, and expression of emotion (Rubin & Chung, 2006). We know that these behaviors are important pathways for the socialization of children's emotions (Eisenberg, et al., 1998). Other variables such as family emotional expressiveness, emotional communication (Leibowitz, et al., 2002) between the mother and father, or parents'

discipline technique (Deater-Deckard, Dodge, & Sorbring, 2005) could be more important variables that contribute to children's perceptions of the parent-child relationship and their behavior during a problem solving discussion.

Similarly, there is no research demonstrating the relationship between children's perceptions of attachment security or children's perceptions of their parents' emotional availability and behavioral measures. In the current study the interest was on what children perceive their relationship to be like with their parent but it would be useful to know whether children perceive their parents' behaviors accurately and how stable these perceptions are.

Another related limitation is the exclusion of parents' behaviors during the problem solving discussion. Due to the highly interactive nature of the dyad and the problem solving discussion it is difficult to separate out parents' behaviors from children's behaviors during this situation since there are highly dependent on one another (Lewis & Granic, 2000). The parent-child relationship is bidirectional and interdependent and bidirectional influences may occur at many levels of the relationship and it is important to consider not only the microlevel interactions but also the macrolevel relationship (Lollis & Kuczynski, 1997). It is difficult to consider children's engagement in the problem-solving discussion without taking into consideration how engaged the parent was during this discussion. Children's engagement in the problem solving discussion may be mediated by parents' engagement or other parental behaviors associated with children's engagement. Future research should examine parents' behaviors during the problem solving discussion and assess the dyad as a whole rather than only the child's contribution.

Fourth, children's perceptions of the parent-child relationship may simply not be strongly influenced by parents' beliefs or at least not until parents have some experience of stress in their

daily life. Dunsmore and Halberstadt (1997) proposed that parents' beliefs influence children's self- and world schemas. If parents' beliefs about children's emotions are stable over time and if parents' beliefs are communicated to children through parents' behaviors then it is likely that by 9 and 10 years of age, children already have a schema of their parents' philosophy on emotions. Parents who have beliefs that may not be thought to be as conducive to communicating their emotional availability to their child may have other mechanisms for letting their child know they are available to them. For example, parents who have the belief that emotions are bad may find other ways to communicate to their child that they are emotionally available to them. The evidence that parents' reports of stressful events moderates the relationship between parents' beliefs and children's perceptions illustrates that parents' beliefs do have some importance on children's perceptions when the parent has higher levels of stressful events.

Fifth, one variable that was hypothesized to have some impact on children's perceptions of the parent-child relationship was the amount of time spent with their parent. Family mealtime rituals such as where they eat dinner and whether or not the whole family eats dinner together have been reported as an important variable for some child outcomes (Luthar & Latendresse, 2005). In the current study parents were asked to indicate where their child typically eats dinner and who they usually have dinner with. There was very little variability in parents' responses to these questions. Almost all parents indicated that their child had dinner at home with the whole family. Given the age of the children in the current study these questions may not have been developmentally appropriate considering that it is unlikely a child between 8 and 11 would be having dinner on their own.^f Thus, other measures assessing time with family may need to be developed. Alternatively, it may mean that parents experienced some concern about how they would be evaluated, and this measure may have been particularly prone to social desirability

effects. Related to the issue of social desirability, if parents and children were experiencing concern about how they were appearing to the researchers, their videotapes might not have been as typical of their actual behaviors. Parents and children may have been trying to put on the best faces during the problem solving discussion; however all were willing to admit that there were issues of conflict or disagreement that they needed to talk about. Finally, social desirability should only have further obscured the predicted relationships.

Conclusions and future directions

Previous research has explored several facets of parents' beliefs including the importance of teaching children emotion language, the value of emotions, and whether emotions are dangerous. Research has supported the role of maternal beliefs about teaching children emotion language for children's emotion understanding (Dunsmore & Karn, 2001), emotion script knowledge (Dunsmore & Karn, 2004), and children's emotional utterances during mother-child discussion (Cervantes & Seo, 2005). Parents' beliefs about emotions as something to be valued are related to children's emotion-focused coping and social support seeking (Halberstadt et al., 2007), and children's interpretation of conflicts between parents and children (Halberstadt et al., 2005). Parents' beliefs that emotions are dangerous and something to be avoided are related to children's greater use of avoidance and distraction coping responses (Halberstadt et al., 2007), and children's interpretations of parent-child conflicts (Halberstadt et al., 2005). There is also evidence that parental beliefs operate at the level of implicit attributions (Dunsmore & Brown-Omar, 2005). The current study had high ambitions to add to our knowledge of the importance of parental beliefs about children's emotions and to include the role of the child in the process of emotion socialization. Despite the accumulating evidence for the importance of parents' beliefs, no direct relationships were obtained. Instead, parents' stress emerged as an important variable

in the current model, both as a direct predictor of children's engagement and as a moderator of the relationships between parents' beliefs and children's perceptions of the security of their relationship with their parents. Thus, this study highlights the importance of parents' short term stress on children's perceptions of the parent-child relationship and children's engagement during parent-child discussions. Future research should explore the influence of parents' everyday stressors on parents' and children's behaviors, and children's awareness of their parents' stress. There is little research on how parents' everyday stressors impact the parent-child relationship or children's socioemotional skills, as most of the research deals with the impact of major life stressors such as developmental delays (van der Oord, Prins, & Oosterlaan, 2008), and domestic violence (Martorell & Bugental, 2006) on child outcomes. The accumulation of parents' daily stressors may have a significant impact on the parent-child relationship and child outcomes. In addition, researchers may want to consider the impact that parents' short-term stress may have on children's behavior in lab settings. It may be that parents' stress depresses certain behaviors in children as well as in parents, and also in the dyad as a whole.

The current study did provide a rich source of data, which will continue to be utilized to answer a number of research questions. Data from the current study will allow for a more in-depth consideration of parents' emotion-related behaviors as well as their self-reported beliefs about emotions to more fully understand their emotion socialization practices. Parents' engagement during the problem-solving discussion should be considered in future studies. Future research should also address how parents' reactions to stressful events influence their behaviors, which then in turn influence their children's behaviors. Future research should continue to explore the construct of parents' beliefs about children's emotions as well as how the child plays an active role in their own development through the bidirectional relationship with their parent.

Parents' experiences of daily stressors emerged as an important variable in the relationship between parents' beliefs and children's perceptions of the parent-child relationship. Parents' beliefs about children's emotions may be particularly important for the parent-child when parents are stressed. When parents are stressed, their underlying beliefs about emotions such as their belief that negative emotions are good assures children that their parents' stressful experiences are not such a problem and they can feel secure in the parent-child relationship.

In all, the current study provided some new evidence regarding the construct of parents' beliefs and revealed the importance of parents' daily stressors in the relationships between parents' beliefs and children's perceptions. These relations have opened an exciting new area of research.

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Appendices

Appendix A: Parents' Beliefs About Children's Emotions: Value

Instructions (5a): These statements express different beliefs about children's emotional development and about parents' roles in helping children with their emotions. Please read each statement and write in the number that shows how much you agree with the statement. Put this response in the column titled "Answer". **Because children's abilities develop over time, please do not think of your child specifically, think of children in general who are 9 or 10 years old.**

1	2	3	4	5	6
Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree

Number	Item	Answer
1	Getting mad can help children do things they need to, like sticking with a task that's hard, or standing up for themselves.	
2	It is okay when children feel angry, and it is okay when they don't.	
3	Showing emotions isn't a good thing or a bad thing, it's just part of being human.	
4	It's good for the family when children share their positive emotions.	
5	It is important for children to be able to show when they are happy.	
6	It is important for children to express their happiness when they feel it.	
7	Feeling sad sometimes is just a part of life.	
8	It is good for children to feel sad at times.	
9	Feeling negative emotions is sort of a dead end street, and children should do whatever they can to avoid going down it.	
10	Showing anger is not a good idea for children.	
11	Feeling all emotions is a part of life, like breathing.	
12	When children get angry they create more problems for themselves.	
13	It is important for children to develop lots of ways to be happy.	
14	Feeling angry sometimes is just a part of life.	

15	Feeling sad is just not good for children.	
16	It is important for children to show others when they feel upset.	
17	It is okay when children feel sad, and it is okay when they don't.	
18	When children are too loving others take advantage of them.	
19	Children who are too loving can get walked all over.	
20	Children's anger can be a relief to them, like a storm that clears the air.	
21	It is useful for children to feel angry sometimes.	
22	Joy is an important emotion to feel.	
23	Feeling angry is just not good for children.	
24	Sometimes it is good for a child to sit down and have a good cry.	
25	When children get angry, it can only lead to problems.	
26	Having lots of joy is very important for a child.	
27	Showing sadness is neither bad nor good, it is just part of being human.	
28	When children are too happy, they can get out of control.	
29	When children show pride in what they have done, it is a good thing.	
30	It is good for children to let their anger out.	
31	When children show anger, they are letting you know that something is important to them.	
32	It is important for children to avoid feeling sad whenever possible.	
33	It is important for children to share their positive emotions with others.	
34	Being sad isn't "good" or "bad" -- it is just a part of life.	

35	It is important for children to feel pride in their accomplishments.	
36	Being angry isn't "good" or "bad" -- it just is a part of life.	
37	It is important for children to be proud of a job well done.	
38	Feeling sad helps children to know what is important to them.	
39	When children express anger, someone in the family ends up having to deal with the consequences.	
40	Anger in children can be emotionally dangerous.	
41	Children who feel emotions strongly are likely to face a lot of trouble in life.	
42	The experience of anger can be a useful motivation for action.	
43	It is okay when children feel happy, and it is okay when they don't.	
44	Children can think more clearly when emotions don't get in the way	
45	Children's feelings can get hurt if they love too much.	
46	Being angry can motivate children to change or fix something in their lives.	
47	It is okay if children show they are happy, and it's okay if they don't.	
48	Expressing anger is a good way for a child to let his/her desires and opinions be known.	
49	When children start to show strong emotions, one never knows where it will end up.	

Appendix A: Parents' Beliefs About Children's Emotions: Contempt

Instructions (4c): These statements express different beliefs about children's emotional development and about parents' roles in helping children with their emotions. Please read each statement and write in the number that shows how much you agree with the statement. Put this response in the column titled "Answer". **Because children's abilities develop over time, please do not think of your child specifically, think of children in general who are 9 or 10 years old.**

1	2	3	4	5	6
Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree

Number	Item	Answer
1	Sarcasm is an effective way to get children to change what they are doing.	
2	Making fun of children's behavior sometimes helps children to change what they are doing.	
3	Making fun of children's feelings is sometimes a good way to get them to change their behavior.	
4	Mocking children is can be a good way to teach children to change what they are doing.	
5	When a child misbehaves, sometimes the parent needs to show contempt or ridicule for the child's actions.	
6	Making fun of children's behavior is never a good idea.	
7	Parents should not mock children's feelings.	
8	Parent's contempt or ridicule of their children's actions can be an appropriate way to help motivate children to do better in the future.	
9	Parent's ridicule of their children's actions can help children to try to do better in the future.	
10	It is not helpful for parents to make fun of their children's feelings.	
11	Parents should not mock their children's behavior.	

Appendix A: Parents' Beliefs About Children's Emotions: Manipulation

Instructions (4m): These statements express different beliefs about children's emotional development and about parents' roles in helping children with their emotions. Please read each statement and write in the number that shows how much you agree with the statement. Put this response in the column titled "Answer". **Because children's abilities develop over time, please do not think of your child specifically, think of children in general who are 9 or 10 years old.**

1	2	3	4	5	6
Strongly Disagree	Somewhat Disagree	Slightly	Slightly	Somewhat	Strongly

Number	Item	Answer
1	Children sometimes act very nice to get what they want.	
2	Children will exaggerate their emotions in order to get what they want.	
3	Children sometimes act angry, just to get attention.	
4	Children often act sad just to get their own way.	
5	Children often act angry just to get their own way.	
6	Children use emotions to manipulate others.	
7	Children sometimes show emotion to try and control the situation.	
8	Children's emotions are sincere rather than manipulative.	
9	Children's anger is sincere rather than manipulative.	
10	Children often cry just to get attention.	
11	Children know they can get their own way if they act really excited about what they want.	
12	Children sometimes act sad, just to get attention.	
13	Children sometimes show affection to get something they want.	

Appendix B: Dinnertime Rituals

We are also interested in the topic of dinnertime for the current American family. Please just answer these two sets of questions:

1. On school nights, where does your child usually eat dinner?
 - a. Home
 - b. Car
 - c. Restaurant
 - d. Friend's house
 - e. Other, Please specify _____

2. On school nights, who does your child usually have dinner with?
 - a. Mom only
 - b. Dad only
 - c. Mom and Dad
 - d. Mom and brothers/sisters
 - e. Dad and brothers/sisters
 - f. Other adult (grandparent, babysitter) other than mom and/or dad
 - g. Other adult (grandparent, babysitter) in addition to mom and/or dad
 - h. On their own (no adults or other children)

Appendix C: Daily Inventory of Stressful Events
(Report of Daily Events)

For the following questions please tell us about stressful experiences that may have happened to you in the past 24 hours.

1. In the last 24 hours, did you have an argument or disagreement with anyone?
___ No ___ Yes
2. In the last 24 hours, did anything happen that you could have argued or disagreed about, but you decided to let it pass? ___ No ___ Yes
3. In the last 24 hours, did anything happen in your workplace or volunteer setting that most people would consider stressful? ___ No ___ Yes
4. In the last 24 hours, did anything happen at home that most people would consider stressful? ___ No ___ Yes
5. In the last 24 hours, did anything happen to a close friend or relative that turned out to be stressful for you? ___ No ___ Yes
6. In the last 24 hours, did anything stressful happen regarding your personal health?
___ No ___ Yes
7. In the last 24 hours, did anything else happen that most people would consider stressful? ___ No ___ Yes

Appendix D: Demographics

We are very interested in conducting our research with a representative population. Please let us know how diverse our population is by filling out the information below.

1. Birth Date ____/____/____ Age: ____

2. Sex: ____

3. How many years of education have you completed?

1 2 3 4 5 6	7 8 9 10 11 12	13 14 15 16	17 18 19 20 20+
(grade school)	(high School)	(college)	(graduate training)

How many years of education has the child's other parent completed?

1 2 3 4 5 6	7 8 9 10 11 12	13 14 15 16	17 18 19 20 20+
(grade school)	(high School)	(college)	(graduate training)

5. How would you describe your ethnic background? _____ (e.g., African American, Hispanic, Native American, White)

6. What is your marital status? Single Married Divorced Separated Widow Co-Habit/Living Together

7. How many children do you have? _____ Please list their sex and age below:

	Age	Sex		Age	Sex
Child #1	_____	_____	Child # 4	_____	_____
Child #2	_____	_____	Child # 5	_____	_____
Child #3	_____	_____	Child #6	_____	_____

8. What, if any, religion are you affiliated with? _____

9. In what region of the country did you grow up? _____

10. What kind of area do you live in now? Rural Urban Suburban Other (Please Specify)

11. Are you presently: (circle all that apply)

- | | |
|--------------------------|--------------------------------------|
| a. Employed full-time | f. Not employed and seeking work |
| b. Employed part-time | g. Not employed and not seeking work |
| c. Homemaker | h. Full-time student |
| d. Retired | i. Part-time student |
| e. Retired on disability | j. Never employed |

12. If you are working, what is your current job title? _____

13. If you have a spouse who is working, what is you spouse/partner's job title? _____

14. What is your combined family income? _____

15. Do you own your own car? Circle: yes / no

16. Do you own or rent your home? Circle: own / rent

17. Number of bedrooms in your home? _____

Continued on next page...

Think of this ladder as representing where people stand in the United States.

At the **top** of the ladder are the people who are the best off – those who have the most money, the most education and the most respected jobs. At the **bottom** are the people who are the worst off – who have the least money, least education, and the least respected jobs or no job. The higher up you are on this ladder, the closer you are to the people at the very top; the lower you are, the closer you are to the people at the very bottom.

Where would you place yourself on this ladder?

Please place a large "X" on the rung where you think you stand at this time in your life, relative to other people in the United States.



Continued...

Think of this ladder as representing where people stand in their communities.

People define community in different ways; please define it in whatever way is most meaningful to you. At the **top** of the ladder are the people who have the highest standing in their community. At the **bottom** are the people who have the lowest standing in their community.

Where would you place yourself on this ladder?

Please place a large "**X**" on the rung where you think you stand at this time in your life, relative to other people in your community.



Appendix E: Security Scale

First think of the parent who is with you today. Then decide which sentence describes you best, then place a check in the box that describes you best next to that sentence. Fill in only 1 of the 4 boxes.

	REALLY TRUE for me	SORT OF TRUE for me	Statements		SORT OF TRUE for me	REALLY TRUE for me
1			Some kids find it easy to trust their mom (dad)	BUT	Other kids are not sure if they can trust their mom (dad)	
2			Some kids feel like their mom (dad) butts in a lot when they are trying to do things.	BUT	Other kids feel like their mom (dad) let them do things on their own.	
3			Some kids find it easy to count on their mom (dad) for help	BUT	Other kids think it's hard to count on their mom (dad)	
4			Some kids think their mom (dad) spends enough time with them	BUT	Other kids think their mom (dad) does not spend enough time with them.	
5			Some kids do not really like telling their mom (dad) what they are thinking or feeling	BUT	Other kids do like telling their mom (dad) what they are thinking or feeling.	
6			Some kids do not really need their mom (dad) for much	BUT	Other kids need their mom (dad) for a lot of things.	
7			Some kids wish they were closer to their mom (dad)	BUT	Other kids are happy with how close they are to their mom (dad)	
8			Some kids worry that their mom (dad) does not really love them	BUT	Other kids are <u>really</u> sure that their mom (dad) loves them.	
9			Some kids feel like their mom (dad) really understands them.	BUT	Other kids feel like their mom (dad) does not really understand them.	
10			Some kids are really sure their mom (dad) would not leave them.	BUT	Other kids sometimes wonder if if their mom (dad) might leave them.	
11			Some kids worry that their mom (dad) might not be there when they need them.	BUT	Other kids are sure their mom (dad) will be there when they need her (him).	

12			Some kids think their mom (dad) does not listen to them.	BUT	Other kids do think their mom (dad) listens to them.		
13			Some kids go to their mom (dad) when they are upset	BUT	Other kids do not go to their mom (dad) when they are upset.		
14			Some kids wish their mom (dad) would help them more with their problems	BUT	Other kids think their mom (dad) helps them enough.		
15			Some kids feel better when their mom (dad) is around	BUT	Other kids do not feel better when their mom (dad) is around.		

Appendix F: LEAP- Father Version

INSTRUCTIONS: In this questionnaire, I will read some statements about your dad who is with you today. For all questions, please answer the statement as to how your father acts toward you currently not like they did when you were younger.

Never	Rarely	Sometimes	Often	Very often	Always
1	2	3	4	5	6

STATEMENT:**MY FATHER:**

- | | |
|--|--------------------|
| 1. Supports you | 1 2 3 4 5 6 |
| 2. Consoles you when you're upset | 1 2 3 4 5 6 |
| <i>Prompt: talks to you/ helps you feel better when you're upset</i> | |
| 3. Shows he cares about you | 1 2 3 4 5 6 |
| 4. Shows a genuine interest in you | 1 2 3 4 5 6 |
| <i>Prompt: shows you they are really and truly interested in you</i> | |
| 5. Remembers things that are important to you | 1 2 3 4 5 6 |
| 6. Is available to talk with you at any time | 1 2 3 4 5 6 |
| 7. Asks questions in a caring manner | 1 2 3 4 5 6 |
| <i>Prompt: asks questions in a nice, friendly way</i> | |
| 8. Spends extra time with you just because he wants to | 1 2 3 4 5 6 |
| 9. Is willing to talk about your troubles | 1 2 3 4 5 6 |
| 10. Pursues talking with you about your interests | 1 2 3 4 5 6 |
| <i>Prompt: talks with you about things you are interested in</i> | |
| 11. Values your input | 1 2 3 4 5 6 |
| <i>Prompt: Is interested in your opinion about things</i> | |
| 12. Is emotionally available to you | 1 2 3 4 5 6 |
| 13. Makes you feel wanted | 1 2 3 4 5 6 |
| Prompt: makes you feel like he wants you around/are important | |
| 14. Praises you | 1 2 3 4 5 6 |
| Prompt: tells you when you do a good job | |
| 15. Is understanding | 1 2 3 4 5 6 |

Appendix G: Conflict discussion topics

Bedtime	Privacy	After-school activities
Television	Pets	Honesty or lying
Swearing	Eating habits	Manners
Respect for others	Sports	Personal appearance
Chores	Taking responsibility	Fighting with siblings
Money	School, homework	Friends
Music	Clean room	Problem with other kids
Playing computer or video games		

Appendix H: Engagement Coding

The coders' task is assign rating of the child's engagement during the problem-solving discussion. Begin coding once the experimenter has stopped talking. Children's engagement in the conflict discussion is the extent of their involvement, attention, and persistence in the discussion. Consider only the child's involvement in the discussion regardless of the degree to which the parent was involved in continuing the discussion and creating the persistence.

Time discussion began: _____

Time discussion ended: _____

Length of discussion: _____

1-----2-----3-----4-----5-----6-----7

Rating: _____

Comments:

1- At the very low end of engagement, the child demonstrates no involvement in the discussion, does not seem to want to participate in the discussion at all and most of the discussion time is spent in nonparticipation with long silences.

2- At the low level, the child is engaged in the discussion but always superficially and does not exhibit much effort or concentration. The child demonstrates delaying participation with utterances such as "umm".

3- The next level, moderately low, is marked by the child's engagement in the discussion with some persistence or concentration but does not have long periods of concentration and may attempt to change the subject.

4- At the moderate level the child sustains some long periods of involvement in the discussion, but also clearly loses interest for some periods of time. Examples of waning involvement may include a looking around the room in a distracted manner or playing with paper and other materials left on the table.

5- Moderately high engagement occurs when the child devotes large periods of attention to being involved in the discussion, gives sustained attention for periods of time with clear involvement, but attention and involvement occasionally wanes.

6- At the high end, the child persists in the discussion over most of the session, loses interest only once briefly within an overall pattern of involvement.

7- Finally, at the very high level the child persists in discussion throughout the session.

Appendix I: Problem-Solving Discussion Information- Parent

Please list the topics you discussed during the problem-solving discussion and then rate how important this is to you and how persistent this problem is for you.

Topic 1. _____

How important is this issue to you:

1	2	3	4	5	6
Not at all	Very little	Somewhat	Important	Very Important	Most important

How often is this an issue in your relationship?

1	2	3	4	5
Never	Rarely	Occasionally	Sometimes	Often

Topic 2 _____

How important is this issue to you:

1	2	3	4	5	6
Not at all	Very little	Somewhat	Important	Very Important	Most important

How often is this an issue in your relationship?

1	2	3	4	5
Never	Rarely	Occasionally	Sometimes	Often

Topic 3 _____

How important is this issue to you:

1	2	3	4	5	6
Not at all	Very little	Somewhat	Important	Very Important	Most important

How often is this an issue in your relationship?

1	2	3	4	5
Never	Rarely	Occasionally	Sometimes	Often

How typical is this conversation compared to your normal conversations?

1	2	3
Not typical at all	Somewhat typical	Very typical