ABSTRACT

STELTER, REBECCA LYNN. Parental Socialization of Children's Anger and Sadness and Children's Affective Social Competence. (Under the direction of Amy Halberstadt, Ph.D.).

Parents' emotion-related socialization behaviors are one component of the process through which children learn about the experience, expression and regulation of emotions and much research has examined these behaviors in relation to children's outcomes (Eisenberg, Cumberland, & Spinrad, 1998). Parents' behaviors are informed in part by their underlying beliefs about children's emotions (Dunsmore & Halberstadt, 1997; Halberstadt, Thompson, Parker, & Dunsmore, 2008; Wong, McElwain, & Halberstadt, 2009). Much of the research on emotion socialization beliefs and behavior has combined negative emotions without examining whether there are unique socialization processes for distinct emotions. The goal of the current study was to explore the relationship between parents' beliefs about two distinct emotions, anger and sadness, and parents' socialization behaviors for these two emotions, as well as how parents' beliefs and behaviors relate to children's affective social competence. In addition, the influence of parent gender, child gender, and ethnicity was assessed. A diverse sample of parents (African American, European American and Lumbee Native American) and their 8-12 year old children were recruited to explore the five major aims of the current study. The main findings supported the importance of distinguishing between parents' beliefs and behaviors for children's anger and sadness. Parent gender and education group differences were also found in parents' beliefs about anger and sadness. This is an important contribution to the literature and future research should examine whether certain parental beliefs and behaviors are more beneficial for children's outcomes than others.

Parental Socialization of Children's Anger and Sadness and
Children's Affective Social Competence

by
Rebecca Lynn Stelter

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APPROVED BY:

_____ _____

Amy Halberstadt , PhD   Lynne Baker-Ward, PhD
Chair of Advisory Committee

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Pamela Martin, PhD   Shevaun Neupert, PhD

DEDICATION

I would like to dedicate my dissertation to my parents David and Gail, who have always told me I could accomplish anything I put my mind to, never failed to remind me how proud they were, and supported me every step of the way and to my sisters Elizabeth and Melissa who make me proud and whose admiration I always strive to deserve.

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 Life-Span Developmental Psychology at North Carolina State University and received her Masters of Science in Life-Span Developmental Psychology in 2007. She is a member of the Society for Research in Child Development, Society for Personality and Social Psychology, and Association for Psychological Sciences.

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Parental Socialization of Children's Anger and Sadness and

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The parent-child relationship provides a powerful context for the socialization of children's emotion (Cassidy, Parke, Butkowsky, & Braungart, 1992; Dix, 1991; Dunsmore & Halberstadt, 1997; Garner, Dunsmore, & Southam-Gerrow, 2008; Halberstadt, 1991; Saarni, 1993). Through parents' direct (e.g. teaching, reactions) and indirect (e.g. nonverbal reactions) socialization behaviors, children learn about the experience and expression of emotions (Eisenberg, Cumberland, & Spinrad, 1998). Understanding parental socialization of children's emotions is important for increasing our knowledge of the factors that influence children's positive developmental outcomes such as social competence (Eisenberg & Fabes, 1992; Rose-Krasnor, 1997), affective social competence (Halberstadt, Denham, & Dunsmore, 2001) and more distal outcomes including externalizing and internalizing problems (Denham, Workman, Cole, Weissbrod, Kendziora, & Zahn–Waxler, 2000; Shipman, Schneider, & Sims, 2005). Parents' beliefs or their underlying philosophy about children's emotions is thought to inform parents' emotion socialization behaviors (Halberstadt, Dunsmore, et al., 2010) and parents' beliefs that demonstrate their acceptance of children's emotions are thought to help lay the groundwork for children to learn more about their own and others' emotional experiences (Dunsmore & Halberstadt, 1997). How parents socialize children's emotions is likely to vary by a number of factors including parents' characteristics (gender, culture) and characteristics of their child (gender, age). Further, parents' emotion socialization is thought to be influenced by the type of emotion. The current study explores how these factors influence emotion socialization to determine

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whether parents have different beliefs and behaviors for different emotions and how these are associated with children's developmental outcomes.

Many theories about emotion posit that there are unique, basic emotions which vary in terms of function, experience, expression and outcome. First, these emotions are thought to have distinct and independent functions and meanings within social interactions (Abe & Izard, 1999; Barrett & Campos, 1987; Campos, Campos, & Barrett, 1989; Izard & Malatesta, 1987; Malatesta & Wilson, 1988). Anger and sadness are two emotions that occur with some frequency in children's lives and are thus of particular interest with regard to parental socialization of emotion. Feelings of anger arise when someone or something interferes with a desired goal in a manner that is perceived as intentional (Berkowitz & Harmon-Jones, 2004). Sadness, however, is an emotional reaction to a sense of loss or harm (Barr-Zisowitz, 2000; Bowlby, 1980; Glasberg, 1979; Rotenberg, Mars, & Crick, 1987). Anger prompts the individual to find the agent responsible for interfering with a desired goal and to discourage the offender from interfering in the future or encourage the offender to make amends (Frijda, 1994). Sadness serves to turn our attention inward and elicit social support from others in order to help us cope with the loss (Allen & Badcock, 2003; Bowlby, 1980; Frijda, 1986; Stearns, 1993). Second, these two emotions are often noted for their differences in terms of dominant versus submissive orientation (Averill, 1982; Valiente et al., 2004). Third, anger and sadness also have distinct facial profiles (Ekman, 1993; Ekman & Friesen, 1971; Izard, 1971) and are easily distinguished from each other when observed in their prototypical forms (Ekman et al., 1987). Finally, there is broad interest in the psychological literature regarding

anger and sadness and how they are associated with important life outcomes including depression and aggression (e.g., O'Neal & Magai, 2005; Zeman, Shipman, & Suveg, 2002).

Despite plentiful theory and evidence for the distinctiveness of the experience and expression of anger and sadness, research often combines anger and sadness as a single construct rather than examining the unique relationships or contributions of anger and sadness. The current study focused on distinguishing between anger and sadness for several reasons. First, given the general lack of research within the child emotion field on sadness this emotion was of particular interest. Second, anger and sadness are prevalent negative emotions that occur during parent-child interactions (Collins, 1990). Third, anger and sadness play a central role in the development of children's psychopathology (Eisenberg et al., 1999; Izard & Harris, 1995). Thus, the focus of the current study is to examine parents' socialization of children's anger and sadness.

Developmental Period and Populations of Interest

The developmental period of interest is middle childhood, and more specifically, late elementary school age, 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.

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Goals and Aims

The major goal of the current study is to explore the relationship between parents'
beliefs about anger and sadness and parents' socialization behaviors for these two emotions
as well as how parents' beliefs and behaviors are associated with children's affective social
competence. Related to these goals, the current study has five aims; see Figure 1 for a visual
presentation of these aims.

Parent and child characteristics
(Gender, ethnicity, education)

Aim 1

Parents' Emotion Beliefs
Value Anger
Value Sad
Danger Anger
Danger Sad

Aims 4a & b

Children's Affective
Social Competence
Sending (Aim 4c)
Encouraging
Discouraging

Receiving (Aim 5)
Recognition
Interpretation Bias

Aim 3

Aims 4c & 5

Parents' Emotion
Socialization Behaviors
Encourage Anger
Encourage Sad
Discourage Anger
Discourage Sad

Aim 2

Figure 1. *Hypothesized model of relationships between parents' beliefs, behaviors and*
children's affective social competence

Note. Parent and child characteristics such as gender, ethnicity, and education are

hypothesized to moderate all the relationships in the proposed model.

Aim 1. The first aim is to determine whether parents have different beliefs about anger and sadness and how these beliefs relate to one another (1a), and if these beliefs differ by parent gender, child gender, and ethnicity (1b).

Aim 2. The second aim addresses parents' *in vivo* emotion socialization behaviors. Specifically, I want to determine whether parents' encouraging and discouraging behaviors vary for anger and sadness and how these behaviors relate to one another (aim 2a), and to assess whether parents' behaviors regarding children's anger and sadness differ by parent gender, child gender, and ethnicity (aim 2b).

Aim 3: The third aim is to examine the relationships between parents' beliefs about anger and sadness and parents' *in vivo* emotion socialization behaviors to determine whether parents' anger/sadness beliefs are uniquely associated with their behaviors in response to these discrete emotions.

Aim 4: The fourth aim is to determine whether children's encouraging and discouraging behaviors vary for anger and sadness (aim 4a), whether children's encouraging and discouraging behaviors in response to parents' anger and sadness differ by parent gender, child gender, and ethnicity (aim 4b), and whether parents' beliefs and behaviors regarding children's anger and sadness relate to children's encouraging and discouraging behaviors in response to parents' anger and sadness (aim 4c).

Aim 5: The fifth and final aim is to assess whether parents' beliefs and behaviors regarding children's anger and sadness are related to children's emotion recognition accuracy skills for anger and sadness and children's emotion recognition biases for anger and sadness.

I first discuss parents' beliefs about children's emotions and how parents' beliefs relate to their socialization behaviors. Then, I briefly review the literature on parents' emotion-related socialization behaviors. Following that I discuss how parents' socialization behaviors vary for different emotions. Finally, I turn to a discussion of children's emotion-related behaviors, which are of interest in the current study.

Parents' Beliefs About Children's Emotions

Several different theories and lines of research suggest the importance of parents' beliefs in informing parents' emotion socialization behaviors (Gottman, Katz, & Hooven, 1996; Halberstadt, Dunsmore, et al., 2010; Parker et al., 2010). For example, Gottman and colleagues (1996) proposed meta-emotion theory, which hypothesizes that parents' philosophy towards emotions produces a particular parenting style. Two types of meta-emotion philosophies have been described, and these are "emotion coaching" and "emotion dismissing". Emotion coaching parents are aware and supportive of children's emotions and try to assist and encourage their experience, expression, and regulation of emotion. Emotion dismissing parents believe that negative emotions are harmful for children and so they respond to children's emotions in a nonsupportive way by discouraging, ignoring or trivializing their feelings (Gottman et al., 1996).

Since the inception of meta-emotion theory, evidence has been accumulating to support the importance of meta-emotion for children and families. When parents have a consistent style of responding to children's emotions in either an emotion coaching or emotion dismissing style, children learn that their displays of emotion are either supported or not supported by parents. There are long-term negative outcomes for children including

poorer health, peer relations, and academic achievement when parents are not supportive of children's emotions (Gottman et al., 1996). In contrast, maternal acceptance and expression of emotions and emotion coaching meta-emotion philosophy have been associated with positive outcomes including less depression and higher self-esteem in adolescents, and more positive parent-adolescent interactions (Katz & Hunter, 2007). Meta-emotion is also important for children's relationships. For example, in a sample of mothers of children with conduct problems, maternal meta-emotion style was related to children's peer relations and this relationship was moderated by child aggression. Mothers' awareness and coaching of emotion was associated with children's more positive peer play and this was especially strong for nonaggressive children (Katz & Windecker-Nelson, 2004).

Despite the broad interest in meta-emotion theory and accumulating evidence to support the relationships between meta-emotion philosophies and parent and child outcomes, meta-emotion theory does have several limitations. Most notably, it does not distinguish between parents' emotion-related beliefs and behaviors to examine how they inform one another or may be distinct. In addition, when determining parents' meta-emotion philosophy, parents are asked about their awareness of their own anger and sadness and their acceptance and assistance with their child's anger and sadness, thus parents are assumed to have a broad emotion coaching or emotion dismissing philosophy that is the same for both of these distinct negative emotions. Finally, as in most areas exploring parents' beliefs and behaviors, research including fathers is accumulating only slowly, and more research including fathers is needed. In response to these limitations, a new line of theory and

research has emerged that focuses on parents' beliefs about children's emotions in order to disentangle the importance of parents' beliefs and behaviors for distinct emotions.

Building on the meta-emotion theory of emotion socialization, Halberstadt, Dunsmore, and colleagues (2010) have begun to focus specifically on parents' beliefs about children's emotions, which are theorized to be distinct, but related to their actual socialization behaviors. Beyond the broad dichotomy of parents' supportive and nonsupportive philosophies of children's emotions, parents are thought to have complex and multifaceted beliefs about children's emotions. 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. For example, parents may differ in their beliefs about the value of certain emotional experiences or the expression of these emotions. Parents who value children's emotions would agree that these experiences can be good for children and useful or informative in some way.

To clarify the various beliefs parents may have regarding children's emotions, Parker and colleagues (2010) conducted a series of focus groups with parents from three ethnicities (African American, European American, and Lumbee American Indian). Based on these focus groups, five distinct dimensions of parents' beliefs about children's emotions emerged, including beliefs about the value of emotions, controllability of emotions, parents as socializers, the relational aspects of emotions, and the developmental aspects of emotions. Within these five broad dimensions of parents' beliefs, factor analyses revealed the presence of more specific, independent beliefs about emotions (Halberstadt, Dunsmore et al., 2010). For example, within the dimension of value of emotions, parents expressed beliefs about the

value of children's experience and expression of negative and positive emotions. Another value-related belief that emerged was the belief that children's emotions can be dangerous and result in problems for the child. The current study is primarily interested in parents' beliefs about the value and danger of children's anger and sadness.

The first aim of the current study is to establish whether there are differences in parents' beliefs about anger and sadness and to examine how parents' beliefs about anger and sadness relate to one another. Evidence that there are differences in parents' beliefs about the value and danger of anger and sadness would support the idea that it is important to consider these emotions and beliefs separately rather than combining beliefs and emotions.

To date there have been no published studies specifically examining parents' beliefs about anger and sadness. Predictions about how parents' beliefs about the value and danger of children's anger and sadness would differ are based primarily on what we know about the fundamental nature of these two emotions. As discussed above, the function of anger in turning one's attention toward finding the agent or offender who interfered with a desired goal (Frijda, 1994) and the more dominant orientation of anger (Averill, 1982) could contribute to parents' perceptions of anger as a more dangerous and less valuable emotion compared to sadness, in part because the parent may feel less control over a situation in which the child is turning away from them. The function of sadness in eliciting social support from others (Allen & Badcock, 2003; Bowlby, 1980; Frijda, 1986; Stearns, 1993) and the submissive nature of sadness (Averill, 1982) may cause sadness to be more valuable to parents and perceived as less dangerous than anger. Sadness may also serve as an opportunity for parents to strengthen the parent-child relationship and may not be viewed as

threatening to the parent-child relationship as much as anger. In addition, as will be discussed in more detail below, parents have different socialization behaviors for children's anger and sadness (Eisenberg et al., 1999; O'Neal & Magai, 2005; Shipman & Zeman, 2001; Zeman & Shipman, 1997).

I hypothesized that parents would report valuing children's sadness more than anger and would have stronger beliefs about the danger of anger compared to sadness. Within anger, I predicted that parents would report greater beliefs about the value of anger compared to danger of anger. Within sadness, I predicted that parents would report greater beliefs about the value of sadness compared to danger of sadness.

Preliminary analyses from a separate larger dataset with an ethnically diverse sample of parents (African American, European American, and Lumbee Native American) with a 4-10 year old child provide some evidence to support the hypothesis that parents report valuing children's sadness more than anger and believe that anger is more dangerous for children than sadness (Stelter & Halberstadt, 2010). Further, parents reported stronger beliefs that children's sadness is valuable compared to beliefs that sadness is dangerous. For anger, parents had similar beliefs, such that they reported stronger beliefs valuing anger compared to beliefs that anger is dangerous. That study did not include any observational assessments of parents' or children's actual behaviors, which is one strength of the current study.

Although there may be overall mean differences in parents' beliefs about the value and danger of anger and sadness, parents are likely to vary in the degree to which they hold beliefs about the value/danger of children's anger/sadness. I therefore also expected that

parents' beliefs about anger and sadness would be related, although still representing distinct beliefs.

Finally, parents' beliefs about the value and danger of children's anger and sadness and parents' behaviors in response to these emotions are thought to vary in important ways based on parent gender, child gender, and ethnicity (Halberstadt, Dunsmore, et al., 2010; Eisenberg et al., 1998). Because similar gender and ethnic differences were predicted for parents' beliefs and behaviors these hypotheses will be discussed together below following the overview of the literature on parents' emotion socialization behaviors.

Parents' Emotion-Related Socialization Behaviors

Parents' beliefs about children's emotions are theorized to inform parents' emotion socialization behaviors (Dunsmore & Halberstadt, 1997). Parents' emotion socialization behavior is a broad construct and a number of theories have been put forth to help organize, describe, and generate research on parental emotion socialization (Dix, 1991; Eisenberg, et al., 1998; Gottman et al., 1996; Morris, Silk, Steinberg, Myers, & Robinson, 2007; Parke & McDowell, 1998). The most influential and comprehensive theory to date proposes a model of emotion socialization with three broad categories of parents' emotion socialization behaviors (Eisenberg et al., 1998). These categories of emotion socialization behaviors include: parental reactions to children's emotions, discussion of emotions, and expression of emotion. These three broad categories of behaviors work together to influence children's understanding of emotion as well as their own emotion-related behaviors. In addition, parental reactions, discussion, and expression of emotion allow children to develop a diverse array of strategies for dealing with their emotions (McDowell, Kim, O'Neil, & Parke, 2002).

The current study examines parents' encouraging and discouraging reactions to children's anger and sadness, which taps into all three categories of parents' emotion-related socialization behaviors proposed by Eisenberg and colleagues (1998). Next, I will briefly describe these three mechanisms of socialization and integrate evidence relating parents' beliefs about children's emotions with these three categories of parent socialization behaviors.

Children learn a great deal about emotions from the reactions they receive when they express their emotions. Parents' reactions to children's emotions can be either supportive or nonsupportive of their experience (Eisenberg et al., 1998). Parents' nonsupportive reactions may come in the form of attempting to control children's emotions, ignoring the child's emotions, responding with negative emotions, and punishing or minimizing the child's emotional experience. There is evidence that parents' beliefs about children's emotions are related to their behaviors; parents who report accepting children's negative emotions also report encouraging their children's expression of negative emotions (Wong, Diener, & Isabella, 2008) and report fewer nonsupportive reactions in response to children's negative emotions (Wong, McElwain, & Halberstadt, 2009). In terms of parents' reactions to children's anger and sadness, researchers have suggested that parents respond differently to children's expression of anger compared to less confrontational emotions such as sadness (Eisenberg et al., 1999;; Zeman & Shipman, 1997).

Discussion about past emotional experiences is hypothesized to be an especially important process of emotion socialization (Fivush, 1993). Longitudinal studies have demonstrated that mothers' discussion of emotion has long-term impacts on children

(Denham, Renwick-DeBardi, & Hewes, 1994). For example, mothers who talk about emotions more with their young children have children who talk more about their emotional experiences than mothers who do not talk about emotions as frequently (Denham et al., 1994; Dunn, Brown, Slomkowski, & Tesla, 1991). In a study of parents' beliefs about children's emotion following the September 11th terrorist attacks, parents (primarily mothers) who reported valuing their elementary and middle school aged children's experience and expression of negative emotion were more likely to engage in a discussion of the terrorist attacks with their children than parents who did not endorse this belief (Halberstadt, Thompson, Parker, & Dunsmore, 2008). Parental discussion of emotion is included as a component of parents' meta-emotion philosophy and parents' encouragement of open discussion of emotions leads to better child emotion regulation. However, meta-emotion theory does not distinguish between anger and sadness or link the socialization of specific emotions to different child outcomes.

The final parental behavior of interest is parents' expression of emotion. Through observations of parents', peers', and others' emotional expression, children learn the appropriate rules for experiencing and expressing emotion (Burrowes & Halberstadt, 1987). Parents have their own pattern of emotion expression, which includes both verbal and nonverbal components, and parents' expressiveness teaches children which emotions are appropriate to express in certain situations (Halberstadt, 1991). Parents' beliefs valuing children's emotions are associated with less negative parental expressiveness (Halberstadt et al., 2008; Wong et al., 2008). In addition, parents' beliefs that their nine and ten year-old children's emotions are dangerous are associated with parents' greater self-reported masking

of their emotional expressions, compared to parents who do not believe children's emotions are dangerous (Dunsmore, Her, Halberstadt, & Perez-Rivera, 2009). Finally, in a recent study that examined both parents' reactions to children's emotions and expression of emotion, mothers and fathers reported beliefs about the acceptance of children's negative emotional expression related to their reported encouragement of children's expression of negative emotions, but related negatively to observed family negative expressiveness (Wong et al., 2008).

The current study builds on previous work done with parents' self-reported behaviors by observing parents' encouraging and discouraging responses to children's anger and sadness. These reactions emerge from parents' discussion and include parents' expression of emotion directed towards the child following children's descriptions of an experience of anger and sadness.

Differential Patterns of Socialization for Anger and Sadness

One aspect of emotion socialization not yet addressed is the relevance of emotion type for parents' socialization behaviors. As discussed briefly above, each emotion is theorized to communicate a specific, interpersonal function, and parents are thought to use different behavioral strategies in response to children's discrete emotions (Izard, 1991; Tomkins, 1991). Children also take an active role in the socialization process by expressing specific emotions to elicit specific responses from parents (Zeman & Shipman, 1996). For example, sadness is expressed to receive support, whereas children do not expect to receive much support in response to their expression of anger (Zeman & Shipman, 1996). In the current study, children's discussion of anger is directed at the parent, thus parents may be

less likely to respond in a positive way toward children's anger. In contrast, children's sadness, even if directed at the parent, may evoke more positive, supportive responses given sadness' role in eliciting support from others, in particular parents (Garside & Klimes-Dougan, 2002).

Children have extensive knowledge of the display rules for anger and sadness. Children in middle childhood report using different expressive strategies depending on the emotion, audience, age, and sex, which suggests children learn these rules through social interactions with their parents and other socialization partners (Shipman, Zeman, Nesin, & Fitzgerald, 2003; Zeman & Garber, 1996). Knowledge of these rules subsequently influences children's interactions with parents.

Despite the long history of grouping all negative emotions together and not examining the importance of anger and sadness separately, there is evidence that parents' emotion-specific responses to children subsequently influence children's emotional development in potentially positive and negative ways (Cassidy, 1994; Cicchetti, 1993; Eisenberg et al., 1998; Gottman et al., 1996; Izard, 2002). Further, children's expressions of anger versus sadness elicit different socialization patterns from their parents. In one study, mothers' self-reported responses to their 3 to10 year-old children's joy, anger, sadness, and fear were examined and different emotion socialization behaviors were found for different emotions (Casey & Fuller, 1994). More specifically, when comparing mothers' responses to these child emotions, mothers reported, somewhat surprisingly, that they would engage in less regulation of children's anger compared to happiness, sadness, and fear. Mothers' use of specific strategies in response to children's emotions, including anger and sadness, was also

examined. The most common strategy in response to anger was pragmatic action followed

by discussion about the situation, instruction (on how to respond or discipline), and doing

nothing (ignoring the situation). The most common strategy for sadness was comforting

(verbal or physical), followed by discussion, offering tangible aid (direct assistance) and then

doing nothing.

Children also expect their parents to react differently to different emotions. For

example, O'Neal and Magai (2005) compared global and emotion specific models of

emotion socialization based on inner city adolescents' reports of their parents' socialization

behaviors for four discrete negative emotions; anger, sadness, fear, and shame.   The global

socialization model assumed parents' socialization strategies were the same across different

emotional contexts, whereas the emotion-specific socialization model proposed parents'

socialization strategies differed depending on the emotional context. A confirmatory factor

analysis compared the global and emotion-specific socialization models to determine which

one was a better fit for the data. They found more support for the emotion-specific model,

with adolescents reporting that their parents respond differently to different emotions,

particularly for anger and sadness. Adolescents' reports of parents' strategies for responding

to their anger, sadness, fear and shame were also compared. Parents' reported being more

rewarding of sadness than anger and more likely to override children's anger than sadness.

This study explicitly tested for the importance of examining parents' socialization strategies

for anger and sadness separately. Finally, the utility of distinguishing between parents'

strategies for responding to children's different emotions was illustrated by examining the

relation of emotion socialization with children's behavioral functioning (externalizing and

internalizing behaviors). Parents' strategy of magnifying children's anger was associated

with children's externalizing problems above and beyond the influence of parents' overall

magnifying of emotions. Together these studies illustrate the importance of disentangling the

socialization of children's anger and sadness, in particular to help elucidate how the

socialization processes related to these emotions are associated with children's later

emotional development and life outcomes. They demonstrate that children do perceive their

parents as responding differently to different emotions, which begs the questions of how and

why parents are responding differently. These are questions that the current study aims to

explore.

As discussed above (Aim # 1), I hypothesized that parents would have related but

distinct beliefs regarding the value and danger of children's anger and sadness. Based on

evidence that there are unique parental socialization behaviors associated with children's

anger and sadness, I hypothesized that parents' behaviors in response to children's anger and

sadness are interrelated but discrete constructs (Aim #2a). More specifically, four parent

emotion socialization behaviors: encouraging of anger, discouraging of anger, encouraging of

sadness, and discouraging of sadness were examined. I predicted that encouraging and

discouraging of anger would be negatively related and that encouraging and discouraging of

sadness would be negatively related. Following the predictions for parents' beliefs, I

expected that parents would be more encouraging of children's discussion of sadness than

anger but more discouraging of children's discussion of anger than sadness (Aim #2a).

Further (Aim # 3), I predicted that the relationship between parents' beliefs and behaviors

within the same emotion type would be stronger than across emotion type. That is, parents'

accepting beliefs regarding children's anger would be associated with more observed

supportive behaviors towards children's anger and this relationship would be stronger than

the relationship between parents' beliefs about sadness and parents' observed behaviors

towards children's anger. Likewise, parents' beliefs that anger is not acceptable would be

associated with more observed discouraging and less supportive behaviors towards children's

anger and the magnitude of this relationship would be stronger than the relationship between

parents' beliefs about sadness and parents' observed behaviors towards children's anger.

Parents' accepting beliefs regarding children's sadness would be associated with more

observed supportive behaviors towards children's sadness and this relationship would be

stronger than the relationship between parents' beliefs about anger and parents' observed

behaviors toward children's sadness. Finally, parents' beliefs that sadness is not acceptable

would be associated with more observed discouraging and less supportive behaviors towards

children's sadness and this relationship would be stronger than the relationship between

parents' beliefs about anger and parents' observed behaviors towards children's sadness.

These findings, if significant, would demonstrate the importance of differentiating discrete

emotions.

Influence of Gender and Ethnicity on Parents' Beliefs and Behaviors (Aims 1b and 2b)

In the theoretical model proposed by Eisenberg and colleagues (1998), demographic

factors such as parent gender, child gender, and culture/ethnicity are thought to impact

parents' emotion socialization behaviors. Similarly, Halberstadt, Dunsmore, and colleagues

(2010) suggest that parents' beliefs are influenced by a number of contextual and

demographic factors. Within the United States there are pervasive gender stereotyped roles

regarding emotion such that women are stereotyped as more emotional than men. These gender stereotypes appear to influence the parent-child relationship. To illustrate, even when parents are not prompted to discuss a past emotional experience with their preschool child, mothers frequently mention emotion (Fivush, 1989). This is consistent with research documenting that in general women are more emotionally expressive than men (Brody & Hall, 2000). In addition to these broad gender stereotypes about emotion, there are emotion specific stereotypes of anger as a masculine emotion and sadness and fear as feminine emotions that may influence parents' responses to these discrete emotions (Brody & Hall, 1993).

In terms of parents' beliefs and behaviors, mothers report more accepting beliefs (Wong et al., 2009) and more reported encouragement of children's negative emotional expression compared to fathers (Wong et al., 2008). For parents' beliefs that emotions are not acceptable, one recent study did not find any parent gender differences for parents' beliefs that emotions are dangerous (Dunsmore et al., 2009).

To date, no research has examined how parents' beliefs may differ for children's anger and sadness depending on parent or child gender. However, there is some research demonstrating that parent gender and child gender act independently and interact with one another to influence parents' socialization of children's anger and sadness. For example, young boys report regulating their emotional expression more than girls and expect to receive less positive responses to their emotional displays from parents than girls (Fuchs & Thelen, 1988; Zeman & Garber, 1996). And, adult women report having received more positive and fewer negative parental responses to displays of fear and sadness in childhood, compared to

men (Garside & Klimes-Dougan, 2002). Additionally, in a recent study that assessed parents' emotion socialization behaviors similar to those of interest in the current study, fathers were found to exhibit more nonsupportive reactions to children's sadness than mothers, including minimizing responses, such as trying to reduce the intensity of a situation or dismiss the child's sadness (Cassano, Perry-Parrish, & Zeman, 2007).

Parent gender also interacts with child gender. Both mothers and fathers encourage girls' emotion expression more than boys (Cassano et al., 2007; Fivush, 1993) and discuss sad events more with young daughters than sons (Fivush et al., 2000). Consistent with gender role stereotypes, fathers attend more to their preschool-aged girls' than boys' sad and anxious expressions, and more to boys' than girls' anger expressions (Chaplin, Cole, & Zahn-Waxler, 2005). Similarly, fathers are more supportive of girls' than boys' expression of sadness (Garside & Klimes-Dougan, 2002). Mothers' expectations regarding children's responses to sadness differ by child gender such that girls are expected to show more behavioral responses to sadness than boys (Casey & Fuller, 1994).

Based on the evidence discussed above regarding the gender stereotypes about emotions, I expected that mothers have stronger beliefs that value children's emotions and are overall more supportive of children's emotions than fathers. In terms of the influence of child gender, I predicted both mothers and fathers would be more accepting of daughters' sadness compared to sons' but more accepting of sons' anger compared to daughters'. Further, I predicted that parents' beliefs and behaviors about anger and sadness would vary based on parent and child gender such that mothers would be more accepting of daughters' and sons' anger and sadness than fathers.

Parents' emotion-related beliefs and behaviors and children's behaviors are embedded within their cultural history, beliefs and practices. Dunsmore and Halberstadt (2009) recently summarized four different models of socialization that emphasize the direct and indirect influences of culture on parents' emotion socialization behaviors. Ethnicity, one component of ones' culture was explored as a potential factor contributing to different parental beliefs and behaviors for children's anger and sadness. Consideration of potential ethnic differences is particularly important given that there are known differences in parenting behaviors. For example, discipline techniques including corporal punishment are reported being used more frequently by African American parents compared to European American parents (Brody & Flor, 1998; McLoyd, 1998; Pinderhughes, Dodge, Bates, Pettit, & Zelli, 2000). The current study compared three ethnic groups within the United States; African American, European American, and Lumbee American Indian. Whereas these three groups share at least some degree of common political, economic, and social values, they each also have unique histories and traditions that are thought to shape their emotion-related beliefs and behaviors. In general, there is evidence that the norms regarding emotions, including beliefs about the function or value of emotions, vary across cultures (Cole, Bruschi & Tamang, 2002; Eid & Diener, 2001; Kitayama & Markus, 1994). Regarding parents' beliefs about emotions, a recent qualitative study of ethnic differences in parents' beliefs about children's emotions found differences and similarities in the beliefs generated by the three ethnic groups that are of interest in the current study (Parker et al., 2010). There were ethnic differences in parents' beliefs about the value of negative emotions and children's right to privacy regarding their emotions. Mean differences in various parental beliefs about

children's emotions by ethnicity have been noted, for example, parents' belief that emotions just are, emotions are bad, and children use emotions to manipulate (Beale, Halberstadt, & Bryant, 2007).

In addition to underlying parents' beliefs about children's emotions, ethnic differences may result from shared experiences such as being an ethnic minority within a majority culture. Both minority group participants in the current study share a history of oppression. The Lumbee are a tight-knit, family and community focused population. The majority of the 50,000 Lumbee in the United States live in the Robeson County area of North Carolina. Robeson county is a very diverse mix of the three ethnicities in the current study including 24% African American and 36% European American, thus the Lumbee have frequent interactions with people from other ethnicities (U.S. Census. Bureau, 2008). Like all Native Americans in the United States, the Lumbee have faced oppression by the government and they are not currently recognized by the federal government as American Indians but they are seeking recognition. The African American participants in the current study have a long, well documented history of oppression by the majority European American culture beginning with the slave origins of most African American families within the United States. For both of these ethnic groups, the history of oppression and experiences as minorities within the European American culture may shape their beliefs about children's emotions and parents' socialization behaviors (Consedine & Magai, 2002). The fundamental nature of anger and sadness as dominant and submissive emotions respectively is one potential reason for ethnic differences. African American and Lumbee Native American parents, as minorities in the majority culture might be more defensive than European

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American parents against a submissive emotion like sadness and therefore hold beliefs that sadness is not valuable for their children as it convenes a sense of weakness and submission. Parents may want to protect children from experiencing sadness and may even reinterpret sad situations in terms of anger. Parents' beliefs and behaviors will thus reflect their desire to help teach children how to navigate emotionally through the dominant culture (Garcia Coll et al., 1996).

Given the qualitative evidence that African American parents are more accepting of all emotions (Parker et al., 2010), I predicted that African American parents would value anger and sadness and be supportive of children's anger and sadness more than both European American and Lumbee American Indian parents. Further, the Lumbee American Indian parents may have the lowest beliefs regarding the value of anger and be the least supportive of children's anger, given findings from the Parker and colleagues' (2010) qualitative study that Lumbee parents did not believe children should observe negative emotions in their parents. I also predicted that, as minorities in US culture, African American and Lumbee American Indian parents would be more similar to one another compared to European Americans regarding their beliefs and behaviors about children's anger and sadness.

Children's Emotion-Related Behaviors (Aims 4 and 5)

Differences in parents' beliefs and behaviors about children's anger and sadness are ultimately more interesting if they are related to important child emotion-related behaviors and outcomes. The current study proposes to explore how parents' anger and sadness-related beliefs and behaviors are associated with two child emotion-related skills: children's

response to parents' anger and sadness and children's recognition of emotion. These two skills can be better understood and conceptualized within the model of Affective Social Competence (ASC; Halberstadt, Denham, & Dunsmore, 2001), which outlines three multidimensional, interactive components that are essential for successful emotion-related social interactions for children. The three components include: sending of affective messages, receiving others' affective messages during the course of social interaction, and experiencing/managing ones' own affective experiences. There is accumulating empirical support for the various components of this model (Halberstadt et al., 2001) and for its utility in understanding children's outcomes (Hubbard & Daring, 2004). Much of the research has focused on how these skills are associated with children's peer relationships (e.g. Dunsmore, Noguchi, Garner, Casey, & Bhullar, 2008).

Most research related to children's emotion-related behaviors and skills has focused on children's general emotion-related knowledge including the causes of emotion (e.g. Hughes & Dunn, 2002; Rotenberg, Mars, & Crick, 1987), display rules for emotions (e.g. Zeman & Garber, 1996), and strategies for dealing with emotions (e.g. Cole, Dennis, Smith-Simon, and Cohen, 2009; Dennis & Kelemen, 2009). The literature available on children's reactions to parents' emotions is primarily in the context of interparental conflict (e.g. Cummings, Kouros, & Papp, 2007; Martin & Clements, 2002) and focuses on how children deal with this conflict rather than how they contribute to the interaction. Nevertheless, some work in this area suggests bidirectional influence; for example, children's intentional behaviors meant to influence other family members was shown to be associated with reduction in interparental conflict over time, even when controlling for initial levels of

marital conflict (Schermerhorn, Cummings, & Davies, 2005). This study illustrates the powerful influence children can have on family relations.

The research within the area of interparental conflict sheds some light on the importance of children's behaviors in the socialization process, however, there is still very little research examining children's emotion specific behaviors in response to parents' emotions. In one of the few studies of children's responses to parents' emotions, children's beliefs and strategies for reducing parents' anger were examined. Children as young as 4 years old were able to generate strategies for reducing parents' anger (Covell & Miles, 1992). The most common strategy reported by all children was directly intervening in the situation. There were also gender differences in children's strategies for reducing parental anger, with girls suggesting more diverse strategies in response to different situations. Further, in more complex parental anger situations, older children suggested more direct strategies for intervention.

During parent-child interactions, children's expression of emotion with their parents is influenced by children's expectations regarding parents' subsequent reactions to a given emotion. As children grow older, they expect to receive little support in response to their feelings of anger whereas expressing sadness is expected to receive a positive reaction (Zeman & Shipman, 1996) and social support (Casey & Fuller, 1994; Zeman & Garber, 1996). Children's expectancies regarding parents' reactions may also influence how children respond to parents' expression and discussion of anger and sadness (Shipman et al., 2003). These expectancies develop through interactions with parents in which parents demonstrate their emotion socialization beliefs and behaviors (O'Neal & Magai, 2005) and may further

vary based on parent and child gender (Casey & Fuller, 1994) and ethnicity. Assuming parents' beliefs and behaviors differ based on parent and child gender and ethnicity, and that children are receiving the emotion socialization messages from their parents, children's emotion-related behaviors should also vary. For example, in line with emotion-related gender stereotypes, girls are more likely than boys to express sadness (Zeman & Shipman, 1996) and may be more likely to encourage their parents' sadness than boys, particularly for mothers who are typically more supportive of children's sadness than fathers (Cassano et al., 2007; Zeman & Garber, 1996).

There have been many studies illustrating the influence of parents' socialization behaviors on children's emotion-related outcomes in a variety of domains (see Eisenberg et al., 1998 for a review). Evidence is beginning to accumulate relating parents' beliefs and children's behaviors. To illustrate, when both mothers and teachers devalue teaching preschoolers about emotions, children use more passive emotion coping strategies (Denham, Grant, & Hamada, 2002). Also, when parents valued children's emotion, their children reported greater problem-solving, support-seeking, and emotion-oriented coping, and less avoidant and distracting coping techniques than children whose parents did not value children's emotion, following the terrorist attacks of Sept 11, 2001 (Halberstadt et al, 2008). And, when parents thought of children's emotion as problematic or dangerous, their children reported greater avoidant and distracting coping techniques than children whose parents did not consider children's emotions as problematic or dangerous (Halberstadt et al., 2008). Finally, when mothers reported accepting children's negative emotions, children were less

aggressive than children whose mothers did not accept children's negative emotions (Ramsden & Hubbard, 2002).

I predicted that children who were more encouraging of their parents' discussion of anger would have parents with more accepting beliefs regarding children's anger and also possibly stronger beliefs that anger is dangerous. Children who were more encouraging of their parents' discussion of anger would also have parents who were more encouraging and less discouraging of children's sadness. Children who were more discouraging of their parents' discussion of anger would have parents with less accepting beliefs regarding children's anger and sadness. Children who were more discouraging of their parents' discussion of anger would have parents who were less encouraging of their children's anger and sadness. Similar relationships were also expected for sadness.

The degree of children's contribution to the emotion socialization process is in part dependent on children's own emotional competence (Denham, Bassett, & Wyatt, 2007). One of the basic emotion-related skills that children must develop is the ability to identify what others are feeling.

The current study examined children's emotion recognition accuracy for posed emotion faces of unknown adults. In terms of the ASC model, children's emotion recognition skills primarily assess children's receiving skills and their basic ability to identify emotions based on facial expressions. There is a history of evidence suggesting the importance of children's emotion recognition skills for interpersonal relations (e.g. Ensor & Hughes, 2005; Garner, Dunsmore, Southam-Gerrow, 2008; Halberstadt et al., 2001; Hubbard & Dearing, 2004; Izard, Fine, Schultz, Mostow, Ackerman, & Youngstrom, 2001),

behavioral problems (Denham et al., 2002), and school-related outcomes (e.g. Garner & Waajid, 2008; Izard et al., 2001; Nowicki & Duke, 1992).

Parents' beliefs are also related to children's emotion-related skills including children's emotion knowledge. For example, 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). In terms of children's emotion knowledge, parents' belief about guiding children's emotions was negatively related to children's accurate recognition of their parents' emotions (Dunsmore et al., 2009). And, mothers' reports about the value of teaching children about emotions mediated the relationship between mothers' positive expressiveness and reactions and children's emotion knowledge (Denham & Kochanoff, 2002).

In terms of the relationship between parents' beliefs and behaviors and children's emotion recognition skills, it is possible that parents' value beliefs and supportive behaviors for children's anger are associated with better emotion recognition skills for anger. Alternatively, children whose parents who do not value anger, believe anger is dangerous and do not support anger could be better at recognizing anger. Children's skills at detecting these emotions could result from children being more vigilant about recognizing these emotions given parents' beliefs and behaviors towards them.

Related to children's emotion recognition skills is their interpretation of others' emotions. Interpretation biases have a long history in psychological research aimed at understanding how individuals come to understand social information and have been demonstrated in several different lines of research. Within the literature on children's social information processing, children who exhibit a pattern of attributing negative intentions to others during ambiguous social situations are said to have a hostile attribution bias (Crick & Dodge, 1994; Nasby, Hayden, & De Paulo, 1979). This type of interpretive bias has been strongly related to normative and clinical samples of elementary school age children's social maladjustment (see Crick & Dodge, 1994 for a review).

Just as the hostile attribution bias influences children's interpretations of the actions of others in social situations, interpretive biases may similarly color children's understanding of what others are feeling. Children may be biased toward interpreting facial expressions with either a negative or positive valence. Interpreting facial expressions with a negative bias has been related to negative outcomes similar to those associated with a hostile attribution bias. Anger interpretation bias has also been associated with more physical aggression in preschoolers (Garner, Dunsmore, & Southam-Gerrow, 2008), higher levels of peer rejection in preschoolers (Schultz, Izard, & Ackerman, 2000), and longitudinally related to third graders' aggression (Fine et al., 2004). In addition to anger, interpretation biases have been observed in children and adults with anxiety disorders such that they tend to interpret ambiguous stimuli in a threatening or negative way (Gifford, Reynolds, Bell, & Wilson, 2008; Wenzel & Lystad, 2005). To date no studies have examined interpretation biases for sadness. However, it could be hypothesized that interpreting others' emotions with

a sad bias would be associated with negative outcomes such as feelings of rejection, low self-esteem, and internalizing symptoms. Examining the relationship between parents' beliefs and behaviors regarding children's anger and sadness is very exploratory in nature, thus there is little evidence to consult when generating hypotheses. It could be the case that when parents believe children's anger is dangerous and discourage children's anger, then children are more vigilant about detecting anger in others and thus more likely to incorrectly interpret emotional expressions as being angry. However, children whose parents believe that children's anger is dangerous and discourage children's anger could also be less aware of or ignore anger in others in an attempt to defend against dealing with the anger and avoid the situation. Similar hypotheses could also be made in terms of sadness.

Method

Participants

This study includes 126 4th and 5th grade children (60 female, 66 male, *M* age = 9.53 years, *SD* = .85, range 8-12 years) and one of their parents (95 mothers, 31 fathers, *M* age = 39.22 years, *SD* = 5.50, range 28-54), who participated in a larger study on parents' beliefs and socialization of children's emotions (Halberstadt, Dunsmore, et al. 2010). Parents reported children's ethnicity and all participating parents and children were of the same ethnicity (44 African American, 43 European American, and 39 Lumbee American Indian). See Table 1 for information on parent gender, child gender, ethnicity, and education. Most parents were married (71%) and most were well-educated (45% had completed 4-year college degrees; 30% had graduate or professional degrees).

Table 1. *Number of families by parent and child gender, ethnicity, and education with complete data*

	Total sample (*N* = 126)	Complete Parent behavior data (*n* = 40)	Complete Child behavior data (*n* = 31)
Parent Gender			
Father	31	10	5
Mother	95	30	26
Child Gender			
Daughter	60	24	20
Son	66	16	11
Ethnicity			
African American	44	12	12
European American	43	10	10
Lumbee Amer. Indian	39	18	9
Education			
High school degree	6	4	-
Some college	28	9	-
College degree	47	15	-
Post-graduate	45	12	-

Recruitment targeted parents of a 4th or 5th grade child and strategies included contacting parents who had participated in previous studies, advertising widely through announcements at local churches and organizations such as the Boys and Girls Club, putting up flyers in public locations, inviting parents attending recreational sports practices such as Pop Warner football or attending courses at local colleges/universities, making personal contacts within the community, and sending emails via online web listings and university alumni organizations.

Participants were tested in three lab settings. Because of the geographical segregation that still predominates in many U.S. regions, it was clear that each of the three laboratories would have more success in focusing their recruitment on one of the three ethnic groups of interest. Thus, each lab recruited primarily one ethnic group; however, no families were turned away from participation because of their ethnicity. Almost all African American families participated at the North Carolina State University (NCSU) lab. Most of the European American families participated in a lab at Virginia Polytechnic Institute (VTech). All but one of the Lumbee families participated at the University of North Carolina at Pembroke (UNC-Pembroke) lab in Robeson County, North Carolina where a large proportion of Lumbee reside. In each setting, parents were paid for their time, and children were given either a t-shirt or $5 and a certificate of appreciation for their participation.

Measures

Parents' Beliefs About Children's Emotions (PBACE). The PBACE questionnaire was developed from previous studies beginning with focus groups (Parker et al., 2010), followed by exploratory and confirmatory factor analyses of responses from 1108 parents

from three ethnicities (African American, European American, and Lumbee American Indian; Halberstadt et al., 2010). Eleven scales, representing a variety of parents' beliefs about emotion emerged. For the current study, parents' beliefs about the value and danger of children's anger and sadness were of interest. Parents reported how strongly they endorsed each belief on the PBACE on a 6-point Likert scale from strongly disagree (1) to strongly agree (6). See Appendix A for a copy of the full questionnaire.

Many of these scales have been used in a number of recent studies examining the importance of parents' beliefs for a variety of parent and child behaviors and outcomes including parents' socialization behaviors (Wong et al., 2009), children's emotion understanding (Dunsmore et al., 2009; Halberstadt, Dennis, Craig, Stelter, & McNeil, 2009), children's attachment security (Stelter & Halberstadt, 2010), and children's peer relationships (Wong et al., 2008). Thus, there is mounting evidence of the reliability and validity of this measure for assessing parents' beliefs about children's emotions.

Measure development: Parents' beliefs about children's anger and sadness. In the present study, parents filled out the PBACE questionnaire, using a 6-point Likert-type scale that ranged from strongly disagree to strongly agree. Because the original PBACE questionnaire does not provide scales that distinguish between anger and sadness, an iterative process was conducted and resulted in four scales assessing parents' beliefs about the value and danger of children's anger and sadness. First, two separate factor analyses were conducted, using data on parents' beliefs from the larger dataset mentioned previously ($N = 1108$), to determine whether the items pertaining to anger and sadness would create separate factors within the broader dimensions of beliefs about value and danger.

Four criteria were used to determine the number of factors to extract: the scree test, the Kaiser-Guttman rule, the incremental variance explained, and interpretability of the factors. First, a principal axis factor analysis with promax rotation was conducted using all the available anger and sad items on the PBACE Negative Emotions are Valuable scale (17 items). This analysis resulted in four factors, which explained 33% of the total variance. An iterative procedure was then use to retain items that had high factor loadings, formed internally reliable and interpretable scales. The final solution resulted in two distinct factors, which explained 37% of the total variance. One factor includes seven items assessing parents' beliefs about the Value of Anger. The other factor includes five items assessing parents' beliefs about the Value of Sadness. See Table 2 for factor loadings.

Table 2. *Factor Loadings for Parents' Beliefs About the Value of Children's Anger and*

Sadness, N = 1108

Item	Factor 1: Value of Anger	Factor 2: Value of Sadness
85	.60	
80	.57	
1	.49	
40	.47	
41	.44	
87	.37	
25	.33	
71		.74
53		.69
46		.50
16		.48
15		.38

A second principal axis factor analysis with promax rotation was conducted using all the available anger and sad items on the PBACE Emotions are Dangerous scale (16 items). The initial factor analysis resulted in two factors, based on the Kaiser-Guttman rule, and explained 47% of the total variance. Again, an iterative procedure was followed using the previously mentioned criteria, which resulted in two factors explaining 49% of the total variance. One factor includes seven items assessing parents' beliefs about the Danger of Anger. The other factor includes six items assessing parents' beliefs about the Danger of Sadness. See Table 3 for the factor loadings.

Results from these factor analyses indicated that there were four distinct factors of parents' beliefs: Value of Anger, Value of Sadness, Danger of Anger, and Danger of Sadness. As can be seen in Table 4, these four beliefs were somewhat related but did not appear to be measuring the same construct. These subscales had good face validity, with all the angry and sad items factoring together and acceptable internal reliability.

Table 3. *Factor Loadings for Parents' Beliefs About the Danger of Children's Anger and*

Sadness, N = 1108

Item	Factor 1: Danger of Anger	Factor 2: Danger of Sadness
77	.70	
82	.66	
27	.65	
75	.58	
51	.55	
45	.54	
23	.41	
22		.76
19		.70
60		.69
8		.57
76		.44
30		.37

Table 4. *Intercorrelations and Reliability of Subscales of Parents' Beliefs About Children's Emotions, N = 1108*

Subscale	Anger valuable	Sadness valuable	Anger dangerous	Sadness dangerous
Anger is valuable (7 items, 7 items)	α = .81, α = .72	.35*	-.08*	.08*
Sadness is valuable (5 items, 2 items)	.43*	α = .65, α = .48	-.17*	-.35*
Anger dangerous (7 items, 6 items)	-.24*	-.17*	α = .81, α = .79	.53*
Sadness dangerous (5 items, 2 items)	-.16*	-.29*	.61*	α = .76, α = .63

*p < .05

Note: Along the diagonal are the Cronbach's alpha estimates using the factor analysis derived versions of the subscales, followed by the reduced set of items available in the proposed study. Above the diagonal are the intercorrelations for the subscales derived from the factor analysis. Below the diagonal are the intercorrelations using the reduced set of items available in the proposed study.

Some of the original PBACE items from the larger dataset were dropped to reduce the number of items in each scale and were consequently not included in the version of the PBACE used in the current study. There were four items related to parents' beliefs about the value of children's sadness, two items related to parents' beliefs about the danger of children's sadness, eight items related to parents' beliefs about the value of children's anger, and six items related to the danger of children's anger. Second, the internal reliability of the scales was assessed and items were deleted from the subscales to improve the internal reliability. Subsequently, one item was deleted from the Value of Anger subscale and two items were deleted from the Value of Sadness subscale, which resulted in higher reliability. See Table 5 for the internal reliability.

The final four distinct beliefs, followed by sample items, are: 1) Anger is valuable: "Expressing anger is a good way for a child to let his/her desires and opinions be known" and "It is useful for children to feel angry sometimes", 2) Sadness is valuable: "It is good for children to feel sad at times" and "Sometimes it is good for children to sit down and have a good cry", 3) Anger is dangerous: "Showing anger is not a good idea for children" and "Anger in children can be emotionally dangerous", 4) Sadness is dangerous: "It is important for children to avoid feeling sad whenever possible", and "Feeling sad is just not good for children". For each subscale, parents' scores were averaged, with higher scores representing greater agreement with that belief. Scores ranged from 1 to 6. See Table 5 for the number of items and subscale intercorrelations.

Table 5. *Intercorrelations and Reliability of Subscales of Parents' Beliefs About Children's Emotions, N = 126*

Subscale	Anger valuable	Sadness valuable	Anger dangerous	Sadness dangerous
Anger is valuable (7 items)	α = .79			
Sadness is valuable (2 items)	.47*	α = .62		
Anger dangerous (6 items)	-.31*	-.34*	α = .72	
Sadness dangerous (2 items)	-.35*	-.63*	.66*	α = .76

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

Note: Along the diagonal are the Cronbach's alpha estimates for the PBACE subscales in the proposed study. Below the diagonal are the intercorrelations among the PBACE subscales in the proposed study.

Diagnostic Analysis of Nonverbal Accuracy 2 (DANVA2; Nowicki & Duke,

1994). To assess children's emotion recognition skill, children viewed the adult facial

expressions subscale of the DANVA2. This subscale includes 24 photographs depicting

young adult men and women displaying facial expressions of happiness, sadness, anger, and

fear. For each emotion, half of the photographs are low intensity and half are high intensity

expressions. Research assistants showed the child each photograph for two-seconds and then

ask the child to identify each facial expression. Accuracy scores are calculated by summing

the number of correct responses. Accuracy scores on the DANVA2 have been found to be

internally reliable in many different samples with coefficient alphas ranging from .71-.78

(Nowicki & Duke, 2001) and valid over time (Nowicki & Duke, 1994). Internal reliability in

the current study was $\alpha = .66$. Accurate recognition of facial expressions has also been

positively associated with children's sociometric status and academic achievement (Nowicki

& Duke, 1994). Possible scores ranged from 0 to 6.

   Emotion recognition bias. A range of methods have been employed for assessing

interpretive biases and the use of photographic stimuli in which participants view

photographs of prototypical emotion expressions (e.g. angry, sad, happy, surprised) is

common (Barth & Bastiani, 1997; Ekman, 1993). In addition to measuring children's overall

emotion recognition skill, the DANVA2 can be used to assess children's biases in emotion

recognition. Bias scores were calculated by summing the total number of instances in which

the child identified a picture as angry/sad as well as their scores for correctly identifying a

picture as angry/sad. The correct score was subtracted from the total score for each emotion,

which resulted in the bias score or the number of times that the child incorrectly labeled a

photo as angry/sad. Possible scores ranged from 0 to 18. One study with undergraduate students using the DANVA2 to assess young adults' anger recognition and anger bias found that individuals who mislabeled photos as angry had higher levels of aggression (Hall, 2006). Thus, there is some evidence to suggest the DANVA2 has some validity as a measure of anger recognition bias.

Demographics. Parents completed a detailed demographics questionnaire which included questions regarding gender, education, ethnic background, and marital status. Slightly different demographic questionnaires were used at the different study locations. See Appendices B and C.

Participants who visited the NCSU and UNC-Pembroke labs reported their total number of years of education. VTech participants reported their highest degree earned. To create similar level of education groups from these two items, parents' responses from the NCSU and UNC-Pembroke samples were recoded into education groups similar to the VTech participants, which resulted in four education groups; high school completed, some college, college completed, and post-graduate.

Procedure

Overview. Parents and children visited one of three university laboratories to participate in the current study. A racially mixed group of researchers conducted the sessions in all three sites to help participants feel more comfortable during the session. At the UNC-Pembroke 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. Parents then moved to a separate room where they completed the parent measures (PBACE, demographics) as well as several other measures unrelated to the current study. The PBACE was always completed first, followed by the remaining measures, which were counterbalanced. The questionnaires were completed first to allow the participants some time to feel comfortable in the experimental session before asking them to engage in the interactive situations that would be videotaped, including the game play session and problem solving discussion. In a separate room, children completed measures unrelated to the proposed study. Then parents and children were re-united to play the LifeStories® board game for 15 minutes, which is described in more detail below. The game took place in a room with a table surrounded by chairs and with video equipment set up behind the table and chairs.

Description of the LifeStories® game. The LifeStories® game, made by Talicor, Inc., is suggested for players aged 6 to 106 years, and has received a Parents' Choice Award. The purpose of the game is to have interesting conversations about life experiences. Like most board games, players were instructed to roll the dice and move to the appropriate box on their path. Upon landing on a box, players draw from the corresponding deck of cards. There are four decks of cards. Three decks (Memories, Etchings, and Valuables) ask the player to describe life experiences. For example, one card states "Tell about a prize that you

won." The fourth deck of cards, Alternatives, are available for when a player does not want to describe the life experience prompted for on the card she/he has drawn or when the player cannot think of any relevant life experience. The Alternatives are silly actions, such as "Stand on your tiptoes and see if you can touch the ceiling," or "Skip in place while clapping your hands". Players were instructed they could only draw Alternative cards twice during the game.[2]

Three questions were added to ensure that parents and children discussed negative family life experiences as well as positive life experiences. These three cards were 1) Sad card: "Describe a time when the other player made you feel sad", 2) Angry card: "Name one thing that makes you angry at the other player", and 3) Argue card: "Tell about a time when you and the other player had an argument or disagreement". Two copies of these additional cards were added to increase the odds that each player would have an opportunity to answer these questions of interest. In addition, players were instructed that if they drew a card they had already responded to the other player should respond to the question.

Parents and children appeared to have enjoyed playing, were able to talk about fairly intense emotional experiences, and did occasionally choose alternatives. For the purposes of the proposed study, only the cards specifically asking parents and children to name something that makes them angry at the other player and to describe a time the other player made them feel sad were examined.

Videotaping and transcribing. Videotaping consisted of one camera recording the parent and another camera recording the child. In addition, a split-screen image in which both parent and the child 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. The parent and child were also individually recorded. All videotaped conversations were transcribed verbatim and triple checked for accuracy. They were then coded according to the socialization coding scheme described below.

Parents' and children's emotion-related behaviors. To measure parents' and children's emotion-related socialization behaviors, parents' and children's encouragement and discouragement of the other players' response to the LifeStories® game card questions were coded. This coding scheme was developed by colleagues at VTech (Dunsmore, Whitmore, Buonomano, & Foster, 2010) and the examples were clarified by the coders at North Carolina State University. Because one goal of the current study was to understand the socialization of anger and sadness, the participants' responses to the game card questions regarding experiences of anger and sadness were examined. Specifically these cards stated, "Name one thing that makes you angry at the other player", and "Describe a time when the other player made you feel sad".

Despite the researchers' best efforts, not all parents and children responded to all the relevant questions while playing the LifeStories® game regarding their experiences of anger and sadness and thus there are some missing data[1]. Therefore, the samples available to examine questions related to parents' and children's behaviors vary ($n = 40$ for parents, $n = 31$ for children). One concern with this reduced sample size is whether it limits the ability to assess gender and ethnic differences. Considerations of sample size will be discussed below.

The coding scheme is identical for both parents and children. The unit of analysis was defined as the segments of dialogue that followed the reading of each LifeStories® game card, including the speaker turn in which the player read and possibly responded to the card. In most cases this typically included 2 -3 speaker turns. For example, the participant read the card and responded, followed by the other player commenting on the reader's response; then the reader provided more information or instructed the other player it was their turn. In some cases, the other participant did not comment at all regarding the reader's response to the card question, but in other cases, longer exchanges did occur between the player who responded to the card and the other player. The two categories of parents' and children's emotion-related socialization behaviors coded were encouragement and discouragement. These are described further below.

Encouraging and discouraging behaviors. Encouraging and discouraging codes were based on the either the parents' or children's reaction to the other player's response to the angry and sad LifeStories® game cards. For example, for the coding of parents' reactions to children's descriptions of angry and sad experiences, the coders focused on what parents said and did after their child responded to the angry and sad LifeStories® cards. Similarly, for the coding of children's reactions to parents' descriptions of angry and sad experiences, the coders focused on what children said and did after their parent responded to the angry and sad LifeStories® cards. Parents' and children's reactions to the other players' response to the angry and sad LifeStories® cards could have been encouraging, discouraging, or both. For an encouraging response, the player could have acknowledged the answer, acknowledged an emotion, or coached by validating or labeling the emotions. For a

discouraging response, the player could have disagreed over the events or disagreed over the emotion by being dismissive, or shown contempt regarding the emotion. Each of these codes is described in detail in Appendix D.

Parents' and children's encouraging and discouraging scores for the anger and sad cards were created by summing the total number of encouraging and discouraging responses. The possible range of parents' and children's encouraging behavior scores is 0 to 3 and for discouraging behaviors 0 to 4.

The coders and coding process. The main authors of the coding scheme trained coders from NCSU during a day and a half long session at VTech. To provide an ethnically sensitive and responsible set of codes, the three member coding team was an ethnically diverse group (African American, biracial African American & Puerto Rican, and European American), and included two undergraduates and one graduate student, all of whom were unaware of the hypotheses for the current study. Coders were trained in a standardized coding procedure in which each parent-child game was watched in its entirety. The transcript of each parent-child game interaction was available to provide clarification for the conversations when necessary. Coders began their observations at the beginning of the game, viewing each player turn, and coding the parents' and children's reactions to their partner's response to each LifeStories® game card. This process resulted in codes for parents' and children's encouraging and discouraging

Following training and after achieving a mean reliability of .90 (Cohen's kappa), coders were assigned a sample of two-thirds of the total number of participants to code independently. Reliability of parents' and children's responses was assessed periodically

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throughout the coding process and during these reliability checks, the coding team discussed any discrepancies they had for the participants in which their assignments overlapped. The final reliability for all cards in the entire data set was .82 for encouragement and .92 for discouragement (Cohen's kappa). The frequency of each type of response was then calculated for the parent and child of each dyad, yielding frequencies for each.

Sample Size and Power Considerations

The sample size for the various aims varies widely and, due to limitations in the study design, the sample available to analyze several of the aims is small. All attempts were made to reduce the likelihood of Type I and Type II error and analyze the data in the most parsimonious, effective way.

Previous studies examining differences in parents' beliefs about children's emotions and supportive and nonsupportive emotion-related behaviors by parent gender have reported medium to large effect sizes (Wong et al., 2008, 2009). The current sample size of 126 provides adequate power to examine emotion type, demographic differences, and gender by ethnicity interactions in parents' beliefs about children's anger and sadness that are of medium to large effect size (Aims 1a & 1b; see Table 6 below).

The current sample sizes for Aims 2a and 4a should provide adequate power to examine medium to large effects, which are questions of central interest. There is likely not enough power to detect small or medium effect size interactions between the demographic variables (Aims 2b & 4b). Power is improved for Aims 2b & 4b by focusing on the role of parent and child gender and interactions. However, questions regarding demographic differences are less central to the major goals of the current study.

Similarly, previous studies examining the relationship between parents' beliefs and behaviors have reported medium to large effect sizes (Wong et al., 2008; Wong et al., 2009). For Aim 3, there should be adequate power to detect large effects for the relationship between parents' beliefs and behaviors but may not be sufficient to detect small or medium effects. For Aim 4c, the current sample provides sufficient power to detect large effects for the relationship between parents' beliefs and children's behaviors. Finally, for Aim 5, the current sample should provide enough power to detect medium to large effects for the relationship between parents' beliefs and children's emotion recognition accuracy.

Table 6. Levels of Power for Aims at Small, Medium, and Large Effect Sizes

	Effect Size		
Aims	Small	Medium	Large
1a: Repeated Measures ANOVA	.44	.99	1.00
1b: 2 x 2 x 3 x 4 Repeated Measures ANOVA	.15	.89	.99
2a: Repeated Measures ANOVA	.20	.88	.99
2b: 2 x 2 x 3 x 4 Repeated Measures ANOVA	.20	.37	.99
2b: 2 x 2 x 4 Repeated Measures ANOVA	.13	.70	.99
3: Multivariate Regressions	.11	.57	.94
4a: Repeated Measures ANOVA	.18	.81	.99
4b: 2 x 2 x 3 x 4 Repeated Measures ANOVA	.07	.29	.77
4b: 2 x 2 x 4 Repeated Measures ANOVA	.11	.60	.98
4c: Multivariate Regressions	.09	.48	.88
5: Multivariate Regressions	.20	.95	.99

Preliminary Analyses

First, descriptive statistics for all relevant variables were examined, including frequency, skewness, mean, and standard deviation; see Table 7. All the relevant study variables were correlated with parent and child age and there were no significant relationships.

As can be seen in Table 7, there are indications of significant positive skew for several of the study variables, according to guidelines provided by Tbachnick and Fidell (1996). Parents' beliefs about the danger and value of children's sadness are positively skewed, which is likely a result of the relatively few items on each of these scales (2 items each). There are also indications of significant, positive skew for all four variables of parents' encouraging and discouraging of children's anger and sadness. In general, the skewness of these variables is not that surprising because these behaviors (coaching, validating, or labeling children's emotions) are not expected to occur that frequently during normal parent-child interactions. The board game was adapted to maximize the opportunity for socialization behaviors; however, it provides only the one context of sharing memories within a game. It would be beneficial to assess these behaviors in a variety of contexts to get a better estimate of parents' behaviors and an assessment of the range of possible parent socialization behaviors. Additionally, although the game was intended to maximize the opportunity for parents to demonstrate their socialization behaviors, in actuality, there were few opportunities for socialization behaviors related to anger or sadness to occur overall.

Examination of the frequency distributions of the encouraging and discouraging variables indicates that while the full range of scores (0-3) is represented for parents' encouraging of anger and sadness, the full range of possible scores (0-4) for parents' discouraging is not. More specifically, as can be seen in Table 8, the frequency of parents' discouraging behaviors was very low.

These low frequencies for parents' discouraging behaviors illustrate the rarity of parents' explicit discouraging behaviors. Although it is possible for parents to have encouraged and discouraged in response children's discussion to the angry and sad LifeStories® cards, it appears that when parents did exhibit any socialization behaviors they were much more likely to be encouraging than discouraging. Only 4 parents were coded as both encouraging and discouraging in response to children's anger and 10 parents were both encouraging and discouraging of children's sadness.

Similar descriptive statistics were also observed for children's encouraging and discouraging of parents' anger and sadness. As with parents' encouraging and discouraging behaviors, there appears to be some significant positive skew for children's encouraging of parents' sadness and discouraging of parents' anger and sadness. The full range of possible scores is not represented for children's discouraging and the frequencies are very low; see Table 8. Most children's behaviors were encouraging in response to parents' discussion of anger and sadness. Some of the parents' and children's encouraging and discouraging behaviors demonstrated significant skew, however, I chose not to transform them in the current study.

Table 7. *Mean, Standard Deviation (SD), Skew, and Standard Error of Skew for Study Variables,*
N = 126

	n	Mean	*SD*	Range	Skew	*SE of Skew*
Parents' Beliefs						
Anger is valuable	126	4.27	.85	2-6	-.41	.22
Sadness is valuable	126	4.75	1.07	1-6	-1.01*	.22
Anger is dangerous	126	2.83	.92	1-6	.40	.22
Sadness is dangerous	126	2.61	1.35	1-6	.80*	.22
Parents' Behaviors						
Encourage Anger	64	.91	.92	0-4	1.19*	.30
Encourage Sadness	64	1.22	1.15	0-4	.78*	.30
Discourage Anger	64	.17	.42	0-2	2.39*	.30
Discourage Sadness	64	.28	.60	0-2	2.03*	.30
Children's Behaviors						
Encourage Anger	60	.34	.48	0-2	.67*	.31
Encourage Sadness	60	.28	.56	0-2	1.86*	.31
Discourage Anger	60	.16	.41	0-2	2.71*	.31
Discourage Sadness	60	.27	.52	0-2	1.82*	.31
Children's Emotion Recognition Accuracy						
Angry	123	4.29	1.41	0-6	-.80*	.22
Sad	123	4.11	1.31	0-6	-.81*	.22
Children's Emotion Recognition Bias						
Angry	123	.98	1.20	0-5	1.42*	.22
Sad	123	1.20	1.11	0-5	.79*	.22

Table 8. *Frequencies of Parents' and Children's Encouraging and Discouraging of Anger and Sadness*

	Encouraging				
	0 (None)	1 (Encourage answer)	2 (Encourage emotion)	3 (Coaching)	
Parents					
Anger	23	30	6	5	
Sadness	21	22	8	13	
Children					
Anger	38	20	0	0	
Sadness	46	11	3	0	

	Discouraging				
	0 (None)	1 (Dismiss answer)	2 (Dismiss emotion)	3 (Overrides emotion)	4 (Contempt)
Parents					
Anger	53	9	1	0	0
Sadness	51	8	5	0	0
Children					
Anger	50	7	1	0	0
Sadness	46	12	2	0	0

Aim 1a: To determine whether parents have different beliefs about anger and sadness. A repeated measures analysis of variance (ANOVA) was conducted to determine if parents have different beliefs about anger and sadness. The within-subjects factors were the various emotion and belief dimensions (value anger, value sadness, danger anger, danger sadness). The assumption of sphericity was violated, Mauchly's W = .23, *p* < .001, thus the multivariate approach is reported. There was a multivariate effect for parents' beliefs about children's emotions, $F(3, 123) = 59.07$, *p* < .001, *partial eta²* = .59. Bonferroni *post-hoc* tests evaluated the various belief scales. Specifically, parents reported stronger beliefs valuing anger compared to beliefs about the danger of anger, *M* difference = 1.44, *p* < .001. Also, parents reported stronger beliefs valuing sadness compared to beliefs about the danger of sadness, *M* difference = 2.15, *p* < .001. When comparing beliefs between emotions, parents reported stronger beliefs valuing sadness than beliefs valuing anger, *M* difference = .48, *p* < .001, but did not report differences in the danger of anger and sadness, *M* difference = .22, *p* = ,10. See Table 6 for individual means (although these will be qualified by interactions with gender and education shown next).

Aim 1b: To assess whether parents' beliefs about anger and sadness differ by parent gender, child gender, ethnicity and parent education. A 2 x 2 x 3 x 4 x 4 repeated measures ANOVA was used to determine whether parent gender, child gender, ethnic group, or education differences emerged for parents' beliefs about the value and danger of children's anger and sadness. The within-subjects factors included the emotion (anger, sadness) and evaluation (value, danger) dimensions of parents' beliefs. The between subjects factors included child gender (2 levels), parent gender (2 levels), ethnicity (3 levels), and

education (4 levels). Mauchley's test was significant, *Mauchly's W* = .20, *p* < .001*,* suggesting the assumption of sphericity was violated and that the variances of the differences between the levels are not equal. Box's M test was also significant, *M* = 257.98, *p* = .004, indicating the equality of covariances assumption was violated, thus the multivariate approach is reported. As can be seen in the ANOVA summary table (Table 9) there were significant effects for parents' beliefs about children's emotions, the interaction between parents' beliefs and parent sex, as well as the interaction between parents' beliefs and parent education. The three, four, and five-way interactions are reported but were not central to the main aims and none of these interactions reached the traditional level of significance. The effect for parents' beliefs about children's emotions is the same as described above in Aim 1a. Thus, Bonferroni *post-hoc* tests only evaluated the interactions between parents' beliefs and parent sex and parents' beliefs and parent education, and are described in detail below.

Table 9. *Repeated Measures Analysis of Variance with Parents' Beliefs About Anger and Sadness, Parent Sex, Ethnicity, Child Sex, and Education N = 126*

	F	*p*-value	Partial *eta²*	Observed power
Parents' beliefs	7.34	<.001	.20	.98
Parents' beliefs*Parent sex	4.16	.008	.12	.84
Parents' beliefs*Ethnicity	1.49	.18	.05	.57
Parents' beliefs*Child sex	.35	.79	.01	.12
Parents' beliefs*Education	2.42	.01	.08	.92
Parents' beliefs*Parent sex*Ethnicity	1.35	.24	.04	.52
Parents' beliefs*Parent sex*Child sex	.18	.91	.03	.08
Parents' beliefs*Parent sex*Education	1.84	.06	.05	.81
Parents' beliefs*Ethnicity*Child sex	.92	.49	.01	.36
Parents' beliefs*Ethnicity*Education	.90	.56	.06	.59
Parents' beliefs *Child sex*Education	1.74	.08	.06	.78
Parents' beliefs*Parent sex*Ethnicity*Child Sex	.54	.78	.02	.21
Parents' beliefs*Parent sex*Ethnicity*Education	.88	.55	.03	.44
Parents' beliefs*Parent sex*Child Sex Education	1.24	.30	.04	.32
Parents' beliefs*Ethnicity*Child sex *Education	.91	.53	.04	.53
Parents' beliefs*Parent sex*Ethnicity*Child Sex*Education	1.14	.34	.04	.30

Post-hoc tests examined how parent gender modified the overall effects reported above for parents' beliefs about anger and sadness. Figure 2 illustrates the parental beliefs and gender interaction. The first comparisons examined the within-gender differences in parents' beliefs. Most interestingly, mothers only have stronger beliefs about the value of sadness compared to the value of anger. Both fathers and mothers have stronger beliefs that anger is more valuable than dangerous. They both also have stronger beliefs that sadness is more valuable than dangerous.
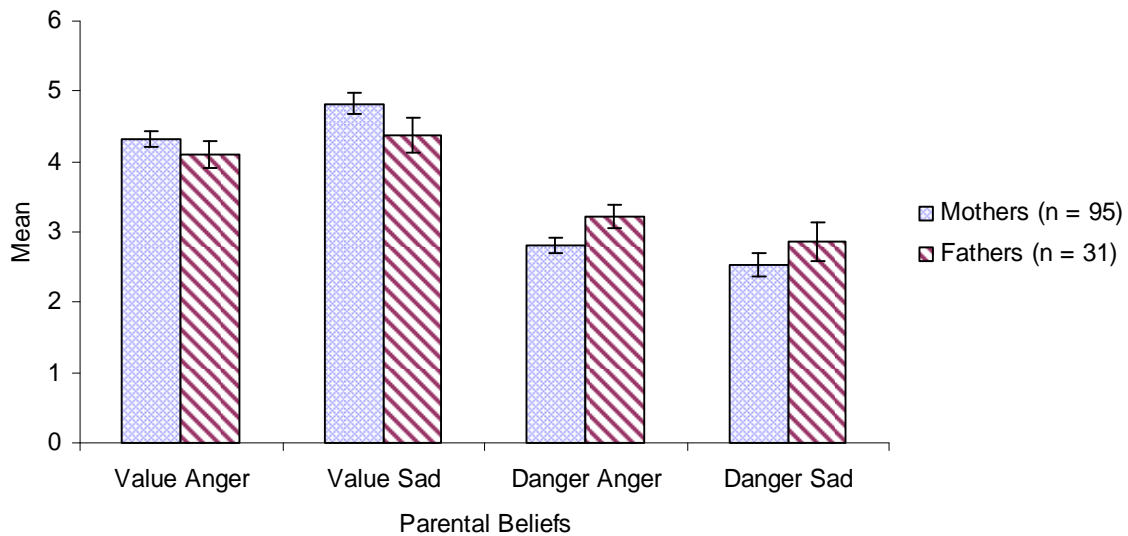
Figure 2. Mother's and father's beliefs about the value and danger of children's anger and sadness.

Gender differences within each belief were also examined. For the belief about the danger of anger, fathers had stronger beliefs about the danger of anger than mothers. Conversely, mothers had stronger beliefs about the value of sadness compared to fathers. Table 10 reports the means and standard deviations for parents' beliefs by parent gender.

Table 10. *Means and Standard Deviation (SD) for Parents' Beliefs About Anger and Sadness Scale by Parent Gender, N = 126*

	n	Value Anger		Value Sad		Danger Anger		Danger Sad	
	n	Mean	*(SD)*	Mean	*(SD)*	Mean	*(SD)*	Mean	*(SD)*
Fathers	31	4.09[c]	*(.77)*	4.38[eh]	*(1.15)*	3.22[bcg]	*(1.03)*	2.87[be]	*(1.68)*
Mothers	95	4.33[ad]	*(.87)*	4.83[afh]	*(1.03)*	2.81[dg]	*(.86)*	2.53[f]	*(1.23)*

Note. Means with the same letter are significantly different ($p < .05$) from one another

The interaction for parents' beliefs and education was also explored, to assess how education qualified the main effects of parents' beliefs described above. Figure 3 illustrates the interaction between parental beliefs and parent education. First, the within education group differences were examined. There were no differences within the group with the lowest level of education (high school diploma). The other three education groups (some college, college degree, and post-graduate) all reported stronger beliefs about the value of anger compared to the danger of anger. The college degree and post-graduate degree groups also reported stronger beliefs about the value of sadness compared to the danger of sadness. Interestingly, the two most educated groups of parents, college degree and post-graduate degree, seemed to have the most differentiated beliefs about children's anger and sadness. They reported stronger beliefs about the value of sadness compared to the value of anger. The most educated group, post-graduate degree, reported stronger beliefs about the danger of anger compared to beliefs about the danger of sadness.
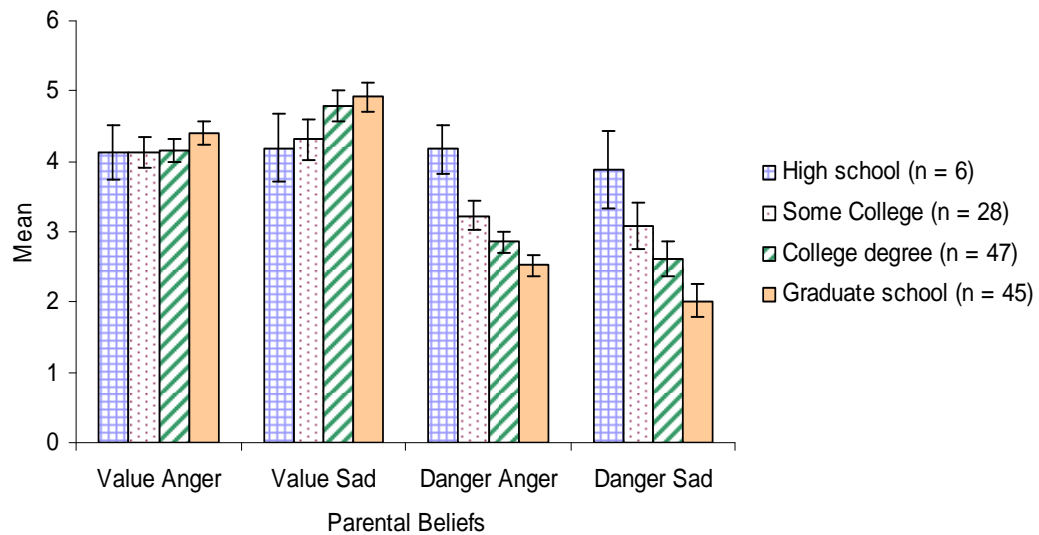
Figure 3. Parents' beliefs about the value and danger of children's anger and sadness within each education group.

When comparing education group differences within the four beliefs, there appeared to be linear effects with education such that the groups with less education had stronger beliefs about danger for both anger and sadness. Parents who had a high school degree reported stronger beliefs about the danger of anger compared to the two highest educated groups. The group with some college education reported stronger beliefs about the danger of anger than the post-graduate group. The high school degree group reported stronger beliefs about the danger of sadness compared to the post-graduate group. The group with some college education also reported stronger beliefs about the danger of sadness than the post-graduate group. Table 11 has the means and standard deviations for parents' beliefs by education.

Table 11. *Means and Standard Deviation (SD) for Parents' Beliefs About Anger and Sadness*

Scales by Parent Education, N = 126

	n	Value Anger		Value Sad		Danger Anger		Danger Sad	
		Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)
High school	6	4.13	(1.22)	4.19	(1.94)	4.17[ij]	(1.40)	3.88[l]	(1.96)
Some college	28	4.14[a]	(.89)	4.31	(1.13)	3.23[ak]	(.76)	3.07[m]	(1.36)
College degree	47	4.16[bf]	(.76)	4.78[df]	(.94)	2.85[bi]	(.88)	2.62[d]	(1.17)
Graduate school	45	4.40[cg]	(.87)	4.92[eg]	(1.02)	2.52[chjk]	(.80)	2.02[ehlm]	(1.30)

Note. Means with the same letter are significantly different ($p < .05$) from one another.

Aim 2a: To assess how parents' in vivo emotion socialization behaviors are related to one another and to determine whether these behaviors vary for anger and sadness. Correlations between parents' encouraging and discouraging emotion socialization behaviors indicate that they are largely independent of each other as none of the correlations were significant ($p > .05$). Table 12 displays the intercorrelations.

Table 12. Intercorrelations Between Parents' Encouraging and Discouraging Behaviors in Response to Children's Anger and Sadness

	Encourage Anger	Encourage Sadness	Discourage Anger
Encourage Anger	-		
Encourage Sadness	.20, $n = 40$	-	
Discourage Anger	-.16, $n = 63$	-.10, $n = 40$	-
Discourage Sadness	-.10, $n = 40$	.07, $n = 64$	.16, $n = 40$

Next, a repeated measures analysis of variance (ANOVA) was conducted to determine if parents have different encouraging behaviors in response to children's discussion about anger and sadness. The within-subjects factor was parents' encouraging and discouraging of anger and sadness. Mauchley's test was significant, *Mauchly's W* = .50, *p* < .001, suggesting the assumption of sphericity was violated. There was a multivariate effect for parents' behaviors, $F(3, 37) = 13.58$, *p* < .001, *partial eta²* = .52. Bonferroni *post-hoc* tests evaluated the various behaviors, means are reported in Table 13. Parents encouraged children's discussion of anger more than they discouraged the discussion of anger, *M* difference = .93, *p* < .001 and encouraged the discussion of sadness more than they discouraged sadness, *M* difference =.85, *p* < .001. However, parents did not differ in their encouragement of children's discussion of anger versus encouragement of sadness, nor did they differ in their discouragement of children's discussion of anger compared to their discouragement of sadness.

Table 13. *Means and Standard Deviations (SD) for Parents' Behaviors in Response to*

Children's Anger and Sadness, n = 40

	Mean	*SD*
Encourage Anger	1.03[a]	*1.03*
Encourage Sadness	1.08[b]	*1.12*
Discourage Anger	.10[a]	*.30*
Discourage Sadness	.23[b]	*.58*

Note. Means with the same letter are significantly different ($p < .05$) from one another.

Aim 2b: To assess how parents' in vivo emotion socialization behaviors regarding children's anger and sadness differ by parent gender, child gender,,ethnicity, and education. A 2 x 2 x 3 x 4 x 4 repeated measures ANOVA was used to determine whether there were any child gender, ethnicity, or education group differences in parents' emotion socialization behaviors in response to children's anger and sadness. The within-subjects factors included the emotion and behavior dimensions (anger encouraging, sadness encouraging, anger discouraging, sadness discouraging). Between subjects factors included child gender (2 levels), parent gender (2 levels), and ethnicity (3 levels) and education (4 levels). Two way interactions between gender and ethnicity and education variables were also examined. The three, four, and five way interactions are reported but were not central to the main aims. Also, there were not enough participants to test the three, four, and five-way interactions that included parent sex. Mauchley's test was significant, Mauchly's W = .41, p

= .01, suggesting the assumption of sphericity was violated; thus the multivariate approach is reported. A summary of the analysis of variance can be seen in Table 14. The only significant effect was for parents' behaviors and the findings were the same as those reported above in Aim 2a; no interactions qualified those effects above.

Table 14. *Repeated Measures Analysis of Variance with Parents' Beliefs' Behaviors in ,*
Response to Children's Anger and Sadness by Parent Sex, Ethnicity, Child Sex, and Parent
Education, n = 40

	F	p-value	Partial eta²	Observed power
Parents' behaviors	6.19	.005	.54	.91
Parents' behaviors*Parent sex	.85	488	.14	.19
Parents' behaviors*Ethnicity	.40	.872	.07	.15
Parents' behaviors*Child sex	.09	.97	.02	.06
Parents' behaviors*Education	.92	.52	.13	.41
Parents' behaviors*Parent sex*Ethnicity	-	-	-	-
Parents' behaviors*Parent sex*Child sex	-	-	-	-
Parents' behaviors*Parent sex*Education	-	-	-	-
Parents' behaviors*Ethnicity*Child sex	.31	.93	.05	.12
Parents' behaviors*Ethnicity*Education	.71	.73	.14	.36
Parents' behaviors *Child sex*Education	.32	.92	.05	.13
Parents' behaviors*Parent sex*Ethnicity*Child Sex	-	-	-	-
Parents' behaviors*Parent sex*Ethnicity*Education	-	-	-	-
Parents' behaviors*Parent sex*Child Sex*Education	-	-	-	-
Parents' behaviors*Ethnicity*Child sex*Education	-	-	-	-
Parents' behaviors*Parent sex*Ethnicity*Child Sex*Education	-	-	-	-

Aim 3: To assess how parents' beliefs about children's anger and sadness relate to their socialization behaviors and to determine whether parents' beliefs and behaviors regarding similar emotions are more closely related than parents' beliefs and behaviors regarding different emotions. First, correlations between parents' beliefs and behaviors for children's anger and sadness were examined to explore the bivariate relationships between these variables; see Table 15. The only significant relationships emerged for parents' beliefs about sadness. The stronger parents' belief about the value of sadness, the less they discouraged both the discussion of anger and sadness. The stronger parents' belief about the danger of children's sadness, the less they encouraged and less they discouraged children's discussion of anger. No other beliefs and behaviors were significantly correlated.

Table 15. *Correlations Between Parents' Beliefs and Behaviors Regarding Children's Anger and Sadness, n = 64*

	Value Anger	Value Sadness	Danger Anger	Danger Sadness
Encourage Anger	.04	.21	-.16	-.27 *
Encourage Sadness	.08	-.08	-.07	-.10
Discourage Anger	-.20	-.26*	.21	.41**
Discourage Sadness	-.14	-.31*	.01	.21^{+}

** $p < .01$ * $p < .05$, $^{+}$ $p < .10$

Regressions were used to test the relationship between parents' beliefs about the value and danger of children's anger and sadness and parents' encouraging and discouraging of children's anger and sadness. Four regression models were tested; one for each parent emotion socialization behavior (e.g. encouraging anger, discouraging anger, encouraging

sadness, and discouraging sadness). Because the goal of the current investigation is to determine whether parents have unique beliefs about children's anger and sadness and whether these beliefs are related to their behaviors for these specific emotions, I hypothesized that parents' beliefs about sadness would be uniquely related to their sadness socialization behaviors. Similarly, I hypothesized that parents' beliefs about anger would be uniquely related to their anger socialization behaviors. For each regression model, the similarly valenced parental beliefs were entered in the first step of the model, and the parental beliefs for the other emotion were entered in the second step to determine the amount of variance that is explained in the dependant variable by the similarly valenced beliefs. For example, when predicting parents' encouraging of children's discussion of anger, parents' beliefs about the value and danger of anger were entered in the first step, followed by their beliefs about the value and danger of sadness.

The first regression predicted parents' encouraging of children's discussion of anger as the dependent variable. In the first step, parents' beliefs about the value and danger of anger were entered. In the second step, parents' beliefs about the value and danger of sadness were entered. The first model was not significant, $F(3, 63) = .81$, $p = .45$, and explained only 3% of the variance in parents' encouraging of children's discussion of anger. Neither parents' beliefs about value nor danger of anger were uniquely associated with parents' encouraging of children's discussion of anger; see Table 16. The second model, which added parents' beliefs about the value and danger of sadness, was not significant, $F(4, 63) = 1.22$, $p = .31$, and explained 8% of the variance in parents' encouraging of children's

discussion of anger. None of the beliefs were uniquely associated with parents' encouraging of children's discussion of anger.

The next regression predicted parents' discouraging of children's discussion of anger as the dependent variable. In the first step, parents' beliefs about the value and danger of anger were entered. In the second step, parents' beliefs about the value and danger of sadness were entered. The first model was not significant, $F(2, 62) = 2.09$, $p = .13$, and explained 7% of the variance in parents' discouraging of children's discussion of anger. Neither parents' beliefs about value nor danger of anger were uniquely associated with parents' discouraging of children's discussion of anger; see Table 16. The second model which added parents' beliefs about sadness explained a significant amount of variance (19%) in parents' discouraging of children's discussion of anger, $F(4, 62) = 3.35$, $p = .016$, and this was a significant increase, $\Delta R^2 = .12$, $p = .017$, from the amount of variance accounted for by parents' beliefs about the value and danger of anger. Parents' belief about the danger of children's sadness was uniquely positively associated with parents' discouraging of children's discussion of anger, when controlling for the other beliefs; see Table 16.

Table 16. *Hierarchical Regressions with Parents' Beliefs Predicting Parents' Encouraging and Discouraging of Children's Anger, n = 64*

Variables	Encourage Anger β (*SE*)	Discourage Anger β (*SE*)
Step 1		
Danger anger	-.17 *(.14)*	.08 *(.06)*
Value anger	-.02 *(.15)*	-.08 (.07)
Step 2		
Danger anger	-.02 *(.17)*	-.04 *(.07)*
Value anger	-.08 *(.16)*	-.08 *(.07)*
Danger sadness	-.17 *(.15)*	.17 *(.06)***
Value sadness	.06 *(.17)*	.05 *(.07)*
	R²	*R²*
Step 1	.03	.07
Step 2	.08	.19*

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

The third regression predicted parents' encouraging of children's discussion of sadness as the dependent variable. In the first step, parents' beliefs about the value and danger of sadness were entered. In the second step, parents' beliefs about the value and danger of anger were entered. The first model was not significant, $F(2, 63) = 1.22$, $p = .30$, and explained only 4% of the variance in parents' encouraging of children's discussion of sadness. Neither parents' beliefs about value nor danger of sadness were uniquely associated

with parents' encouraging of sadness; see Table 17. The second model, which added parents' beliefs about anger, was not significant, $F(4, 63) = 1.13$, $p = .35$, and explained 7% of the variance in parents' encouraging of children's sadness. Parents' belief about the value of sadness was marginally negatively associated, $p = .06$, with parents' encouraging of children's discussion of sadness when controlling for their beliefs about emotions; see Table 17.

The final regression predicted parents' discouraging of children's discussion of sadness. In the first step, parents' beliefs about the value and danger of sadness were entered. In the second step, parents' beliefs about the value and danger of anger were entered. The first model explained a significant amount of variance (10%) in parents' discouraging of children's sadness, $F(2, 63) = 3.34$, $p = .04$. Parents' belief about the value of sadness was marginally negatively associated, $p = .06$, with parents' discouraging of children's discussion of sadness, when controlling for the belief about the danger of sadness; see Table 17. The second model added parents' beliefs about the value and danger of anger and was not significant, $F(4, 63) = 1.98$, $p = .11$, and explained 12% of the variance in parents' discouraging of children's sadness. None of the beliefs were uniquely associated with parents' discouraging of children's sadness discussion; see Table 17. Thus, the unique relationship between parents' belief about the value of sadness was no longer significant once the other beliefs were entered in the regression equation.

Table 17. *Hierarchical Regressions with Parents' Beliefs Predicting Parents' Encouraging and Discouraging of Children's Sadness, n = 64*

	Encourage Sadness	Discourage Sadness
Variables	β (*SE*)	β (*SE*)
Step 1		
Danger sadness	-.20 *(.14)*	.03 *(.07)*
Value sadness	-.24 *(.18)*	-.18 *(.09)*[+]
Step 2		
Danger sadness	-.26 *(.18)*	.08 *(.09)*
Value sadness	-.44 *(.23)*[+]	-.19 *(.12)*
Danger anger	.11 *(.20)*	-.10 *(.10)*
Value anger	.29 *(.21)*	.05 *(.11)*
	R^2	R^2
Step 1	.04	.10*
Step 2	.07	.12

*p < .05, [+]p < .10

Aim 4a: To determine whether children's behaviors vary for anger and sadness.

Correlations between children's encouraging and discouraging emotion socialization behaviors for anger and sadness were examined to describe whether these behaviors were independent and unique. As can be seen in Table 18, there was only one significant correlation, which was between children's encouraging and discouraging behaviors. The more children encouraged parents' discussion of anger the more encouraging they were of parent's discussion of sadness.

Table 18. *Intercorrelations Between Children's Encouraging and Discouraging Behaviors in Response to Parents' Anger and Sadness*

	Encourage Anger	Encourage Sadness	Discourage Anger
Encourage Anger			
Encourage Sadness	.51, *n* = 31*		
Discourage Anger	.17, *n* = 58	.05, *n* = 31	
Discourage Sadness	-.23, *n* = 31	-.15 *n*= 60	-.17, *n* = 31

 * *p* < .05

Next, a repeated measures ANOVA (*n* = 31) was used to determine if children have different behaviors in response to parents' anger and sadness. The within-subjects factor was children's encouraging and discouraging of parents' discussion of anger and sadness. There were no differences in children's encouraging and discouraging of parents' anger and sadness, $F(3, 90) = 1.19$, $p = .32$, *partial eta²* = .04, see Table 19 for means.

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Table 19. *Means and Standard Deviations (SD) for Children's Behaviors in Response to Parents' Anger and Sadness, n = 31*

	Mean	SD
Encourage Anger	.26	.44
Encourage Sadness	.32	.65
Discourage Anger	.16	.37
Discourage Sadness	.13	.34

Aim 4b: To assess how children's behaviors regarding parents' anger and sadness differ by parent gender, child gender, and ethnicity. Then, a 2 x 2 x 3 x 4 repeated measures ANOVA was used to determine whether there were any parent and child gender or ethnic group differences in children's emotion-related behaviors in response to parents' discussion of anger and sadness. The within-subjects factors included the emotion and behavior dimensions (anger encouraging, sadness encouraging, anger discouraging, sadness discouraging). Between-subjects factors included: child gender (2 levels), parent gender (2 levels), and ethnicity (3 levels). As can be seen in Table 20, none of the main effects or interactions was significant.

Table 20. *Repeated Measures Analysis of Variance with Children's Reactions*

	F	p-value	Partial eta^2	Observed power
Children's behaviors	.52	.67	.02	.15
Children's behaviors*Parent Sex	.15	.93	.01	.08
Children's behaviors*Ethnicity	1.04	.41	.09	.38
Children's behaviors*Child sex	.38	.71	.02	.12
Children's behaviors*Parent sex*Ethnicity	.76	.52	.04	.21
Children's behaviors*Parent sex*Child sex	.26	.86	.01	.10
Children's behaviors*Ethnicity*Child sex	.98	.44	.09	.36
Children's behaviors*Parent sex*Ethnicity *Child Sex	.61	.61	.03	.17

Aim 4c: To assess whether parents' beliefs and behaviors regarding children's anger and sadness were related to children's anger and sadness behaviors. First, correlations between parents' beliefs about children's anger and sadness and children's encouraging and discouraging of parents' discussion of anger and sadness were examined to assess the relationships between parents' beliefs and children's behaviors; see Table 21. The stronger parents' beliefs about the danger of anger, the less encouraging children were of parents' anger. The stronger parents' beliefs about the danger of sadness, the less encouraging children were of parents' discussion of anger.

Table 21. *Correlations Between Parents' Beliefs and Children's Behaviors towards Parents'*

Anger and Sadness, n = 60

Children's Behaviors	Parents' Beliefs			
	Value Anger[a]	Value Sadness	Danger Anger[a]	Danger Sadness
Encourage Anger	.13	.21	-.34**	-.32*
Encourage Sadness	-.10	-.06	-.12	.02
Discourage Anger	-.06	-.05	.05	-.03
Discourage Sadness	-.19	-.12	-.02	.09

**$p < .01$, *$p < .05$
[a] $n = 58$

Correlations were also examined for parents' and children's encouraging and discouraging behaviors for anger and sadness to assess the relationships between parents' and children's behaviors; see Table 22. None of these correlations were significant.

Table 22. *Correlations Between Parents' Behaviors and Children's Behaviors toward their*

Partners' Anger and Sadness

Children's Behaviors	Parents' Behaviors			
	Encourage Anger	Encourage Sadness	Discourage Anger	Discourage Sadness
Encourage Anger	.15, *n* = 31	.13, *n* = 40	.25, *n* =31	-.10, *n* =40
Encourage Sadness	.17, *n* = 41	.00, *n* = 34	.16, *n* =41	-.12, *n* =34
Discourage Anger	.01, *n* =31	.23, *n* = 40	-.17, *n* =31	.22, *n* =40
Discourage Sadness	-.18, *n* =41	-.24, *n* = 34	.15, *n* = 41	-.03, *n* =34

Next, beliefs and behaviors were examined separately as predictors of children's emotion behaviors (encouraging and discouraging of parents' anger and sadness), which resulted in a total of eight regression models. Hierarchical regression models were conducted by entering the similarly valenced parental beliefs or behaviors in the first step, followed by the parental beliefs for the other emotion in the second step.

Parents' beliefs predicting children's behaviors. The first regression predicted children's encouraging of parents' discussion of anger. In the first step, parents' beliefs about the value and danger of anger were entered. In the second step, parents' beliefs about the value and danger of sadness were entered. The first model explained a significant

amount of variance (13%) in children's encouraging of parents' anger discussion, $F(2, 57) =$ 4.01, $p = .02$. Parents' belief about the danger of children's anger was uniquely negatively associated with children's encouraging of parents' anger discussion, when controlling for parents' belief about the value of children's anger; see Table 23. The second model which added parents' beliefs about sadness was marginally significant and explained a total of 14% of the variance in children's encouraging of parents' discussion of anger, $F(4, 57) = 2.21$, $p = .08$, however, this was not a significant increase from the previous model, $p = .62$. None of the parental beliefs were uniquely associated with children's encouraging of parents' discussion of anger. Thus, the unique relationship between parents' belief about the danger of children's anger and children' s encouraging of parents' discussion of anger was no longer significant when controlling for the other parental beliefs about children's emotions.

The second regression predicted children's discouraging of parents' discussion of anger. In the first step, parents' beliefs about the value and danger of anger were entered. In the second step, parents' beliefs about the value and danger of sadness were entered. The first model was not significant, $F(2, 57) = .16$, $p = .85$, and explained less than 1% of the variance in children's discouraging of parents' anger discussion. Neither parents' beliefs about the value nor danger of anger were uniquely associated with children's discouraging of parents' anger discussion; see Table 23. The second model, which added parents' beliefs about the value and danger of sadness was not significant, $F(4, 57) = .23$, $p = .92$, and explained only 2% of the variance in children's discouraging of parents' discussion of anger. None of the beliefs were uniquely associated with children's discouraging of parents' discussion of anger.

Table 23. Hierarchical Regressions with Parents' Beliefs Predicting Children's Encouraging and Discouraging of Parents' Anger, n = 58

	Encourage Anger	Discourage Anger
Variables	β (*SE*)	β (*SE*)
Step 1		
Danger anger	-.19 (*.07*)*	.02 (*.07*)
Value anger	.06 (*.07*)	-.03 (*.06*)
Step 2		
Danger anger	-.14 (*.09*)	.06 (*.08*)
Value anger	.04 (*.09*)	-.02 (*.08*)
Danger sadness	-.06 (*.07*)	-.05 (*.07*)
Value sadness	-.01 (*.10*)	-.04 (*.09*)
	R²	*R²*
Step 1	.13	.01
Step 2	.14^{+}	.02

*p < .05, + *p* < .10

The next model predicted children's encouraging of parents' discussion of sadness. In the first step, parents' beliefs about the value and danger of sadness were entered. In the second step, parents' beliefs about the value and danger of anger were entered. The first model was not significant, $F(2, 59) = .14$, $p = .87$, and explained less than 1% of the variance in children's encouraging of parents' sadness discussion. Parents' beliefs about the value and

danger of sadness were not uniquely associated with children's encouraging of parents' sadness discussion; see Table 24. The second model, which added parents' beliefs about the value and danger of anger was not significant, $F(4, 59) = .57$, $p = .68$ and explained only 4% of the variance in children's encouraging of parents' discussion of sadness. None of the beliefs were uniquely associated with children's encouraging of parents' discussion of sadness.

The fourth regression predicted children's discouraging of parents' discussion of sadness. In the first step, parents' beliefs about the value and danger of sadness were entered. In the second step, parents' beliefs about the value and danger of anger were entered. The first model was not significant, $F(2, 59) = .44$, $p = .65$, and explained 2% of the variance in children's discouraging of parents' sadness discussion. Parents' beliefs about the value or danger of anger were not uniquely associated with children's discouraging of parents' sadness; see Table 24. The second model, which added parents' beliefs about the value and danger of anger, was not significant, $F(4, 59) = .73$, $p = .58$, and explained 5% of the variance in children's discouraging of parents' discussion of sadness. None of the beliefs were uniquely associated with children's discouraging of parents' discussion of sadness.

Table 24. *Hierarchical Regressions with Parents' Beliefs Predicting Children's Encouraging and Discouraging of Parents' Sadness, n = 60*

Variables	Encourage Sadness β (*SE*)	Discourage Sadness β (*SE*)
Step 1		
Danger sadness	-.02 *(.08)*	.01 *(.07)*
Value sadness	-.04 *(.09)*	-.05 *(.08)*
Step 2		
Danger sadness	.03 *(.09)*	.04 *(.08)*
Value sadness	-.03 *(.09)*	-.02 *(.08)*
Danger anger	-.13 *(.10)*	-.07 *(.09)*
Value anger	-.07 *(.09)*	-.11 *(.08)*
	R^2	R^2
Step 1	.01	.02
Step 2	.04	.05

Parents' behaviors predicting children's behaviors. Next, models were tested with parents' encouraging and discouraging behaviors predicting children's encouraging and discouraging of parents' discussion of anger and sadness. The sample size available to examine these models was very small with only 24 dyads available for the models predicting children's anger discussion encouraging and discouraging and 29 dyads for the models predicting children's sadness discussion encouraging and discouraging. The first model predicted children's encouraging of parents' discussion of anger. In the first step, parents' encouraging and discouraging of anger were entered. In the second step, parents' encouraging and discouraging of children's discussion of sadness were entered. None of the models were significant. However the final model with all parental socialization behaviors included explained 17% of the variance in children's encouraging of parents' discussion of anger; see Table 25.

The second regression predicted children's discouraging of parents' discussion of anger. In the first step, parents' encouraging and discouraging of anger were entered. In the second step, parents' encouraging and discouraging of sadness discussion were entered. None of the models were significant; however, the final model with all parental socialization behaviors included explained 10% of the variance in children's discouraging of parents' discussion of anger, see Table 25.

Table 25. *Hierarchical Regressions with Parents' Behaviors Predicting Children's*

Encouraging and Discouraging of Parents' Anger, n =24

	Encourage Anger	Discourage Anger
Variables	β (*SE*)	β (*SE*)
Step 1		
Encourage anger	.15 *(.10)*	.07 *(.08)*
Discourage anger	.29 *(.30)*	-.19 *(.24)*
Step 2		
Encourage anger	.23 *(.10)*	.06 *(.08)*
Discourage anger	.29 *(.31)*	-.19 *(.24)*
Encourage sadness	.10 *(.11)*	.08 *(.24)*
Discourage sadness	.10 (.20)	-.15 *(.22)*
	R²	*R²*
Step 1	.13	.07
Step 2	.17	.10

The third regression predicted children's encouraging of parents' discussion of

sadness. In the first step, parents' encouraging and discouraging of sadness discussion were

entered. In the second step, parents' encouraging and discouraging of anger were entered.

The first model was not significant, $F(2, 28) = .67$, $p = .52$, and explained 5% of the variance

in children's encouraging of parents' discussion of sadness. Neither parents' encouraging

nor discouraging of children's sadness was uniquely associated with children's encouraging

of parents' sadness discussion; see Table 26. The second model was significant and explained 48% of the variance in children's encouraging of parents' discussion of sadness, $F(4, 28) = 5.62$, $p = .002$, and this was a significant increase from the previous model, $\Delta R^2 = .44$, $p = .001$. Parents' discouraging of anger discussion was a unique significant predictor when controlling for the other parental behaviors. Parents' encouraging of anger discussion was marginally related when controlling for the other parental behaviors. Finally, parents' discouraging of anger was a unique significant predictor when controlling for the other parental behaviors.

The final regression model predicted children's discouraging of parents' discussion of sadness. In the first step, parents' encouraging and discouraging of sadness were entered. In the second step, parents' encouraging and discouraging of anger were entered. None of the models were significant; however the final model with all parental socialization behaviors included explained 11% of the variance in children's discouraging of parents' discussion of sadness; see Table 26.

Table 26. *Hierarchical Regressions with Parents' Behaviors Predicting Children's*

Encouraging and Discouraging of Parents' Sadness, n = 29

Variables	Encourage Sadness β (*SE*)	Discourage Sadness β (*SE*)
Step 1		
Encourage sadness	-.06 *(.13)*	-.09 *(.07)*
Discourage sadness	-.25 *(.22)*	-.02 *(.12)*
Step 2		
Encourage sadness	-.10 *(.10)*	-.11 *(.07)*
Discourage sadness	-.38 *(.18)**	.02 *(.12)*
Encourage anger	.16 *(.09)*[+]	.04 *(.06)*
Discourage anger	1.33 *(.32)*[**]	-.18 *(.23)*
	R²	*R²*
Step 1	.05	.07
Step 2	.48*	.11

**p < .001, *p < .05, [+]p < .10*

Aim 5: To assess whether parents' beliefs and behaviors regarding children's anger and sadness were related to children's emotion recognition accuracy and children's emotion recognition biases for anger and sadness. Correlation analyses were conducted with children's anger and sadness emotion recognition and bias scores to assess whether parents' beliefs and behaviors for children's anger and sadness were associated with children's emotion recognition skills. As can be see in Table 27, none of these correlations were significant.

Table 27. *Correlations Between Parents' Beliefs and Behaviors and Children's Emotion Recognition Accuracy and Emotion Recognition Bias for Anger and Sadness*

	Emotion Recognition Accuracy		Emotion Recognition Bias	
Parents' Beliefs, $n = 123$	Angry	Sad	Angry Bias	Sad Bias
Value Anger	-.05	-.05	.04	.01
Value Sadness	-.08	-.04	.18[+]	-.01
Danger Anger	.04	-.03	.12	-.13
Danger Sadness	-.03	-.11	-.01	-.04
Parents' Behaviors, $n = 63$				
Encourage Anger	-.12	-.02	-.08	-.09
Encourage Sadness	.20	-.06	-.07	.08
Discourage Anger	.11	-.11	.01	-.19
Discourage Sadness	.12	.09	-.06	.09

Although none of the correlations were significant, it might be that one parental belief or behavior could be suppressing the relationship between other parents' beliefs or behaviors and children's emotion recognition accuracy or bias scores and that these relationships may emerge when controlling for the other beliefs. It was also possible that together, all four parental beliefs or behaviors would predict children's emotion recognition accuracy and bias scores. Therefore, as with Aim 4c, parents' beliefs and behaviors were examined separately as predictors of children's emotion recognition accuracy and emotion recognition biases for anger and sadness. Hierarchical regressions were conducted by entering each parental belief (value anger, value sadness, danger anger, and danger sadness) in a separate step in the regression equation in order to determine whether each belief significantly improved the amount of variance accounted for.

Parents' beliefs predicting anger and sadness recognition accuracy and bias. The first regression model predicted children's accuracy for anger. Parents' beliefs about anger were entered in the first step and beliefs about sadness were entered in the second step. None of the models were significant and the final model explained only 3% of the variance in children's recognition of anger scores; see Table 28.

The second model predicted children's emotion recognition bias for anger. Parents' beliefs about anger were entered in the first step and beliefs about sadness were entered in the second step. The first model was not significant, however the second model, with all the parental beliefs predicting children's anger bias approached significance, $F(4, 122) = 2.01$, $p = .097$, and explained 6% of the variance. Parents' belief about the value of sadness was

significantly related to children's anger bias when controlling for the other beliefs about

emotions; see Table 28.

Table 28. Hierarchical Regressions with Parents' Beliefs Predicting Children's Accuracy and

Bias for Anger, n = 123

Variables	Anger accuracy β (*SE*)	Anger bias β (*SE*)
Step 1		
Danger anger	.04 *(.14)*	.18 *(.12)*
Value anger	-.06 *(.15)*	.11 *(.14)*
Step 2		
Danger anger	.18 *(.18)*	.23 *(.16)*
Value anger	-.01 *(.16)*	-.02 *(.15)*
Danger sadness	-.21 *(.14)*	.02 *(.13)*
Value sadness	-.22 *(.15)*	.29 *(.14)**
	R²	*R²*
Step 1	.01	.02
Step 2	.03	.06

*p < .05

The third model predicted children's accuracy for sadness. Parents' beliefs about sadness were entered in the first step and beliefs about anger were entered in the second step. None of the models were significant and the final model explained only 3% of the variance in children's recognition of sadness scores. In the final model, parents' belief about the danger of sadness was marginally negatively related to children's accuracy for sadness when controlling for the other beliefs about emotions; see Table 29. The final model predicted children's emotion recognition bias for sadness. Parents' beliefs about sadness were entered in the first step and beliefs about anger were entered in the second step. None of the models were significant and the final model explained only 2% of the variance in children's recognition bias for sadness; see Table 29.

Table 29. *Hierarchical Regressions with Parents' Beliefs Predicting Children's Accuracy and Bias for Sadness, n = 123*

Variables	Sadness accuracy β (*SE*)	Sadness bias β (*SE*)
Step 1		
Danger sadness	-.22 (.12)[+]	-.06 (.10)
Value sadness	-.22 (.15)	-.06 (.12)
Step 2		
Danger sadness	-.29 (.15)[+]	.05 (.12)
Value sadness	-.24 (.16)	-.03 (.13)
Danger anger	.15 (.19)	-.22 (.15)
Value anger	.02 (.17)	-.01 (.14)
	R^2	R^2
Step 1	.03	.01
Step 2	.03	.02

[+]$p < .10$

Parents' behaviors predicting emotion recognition accuracy and biases. The

second series of regressions examined the relationship between parents' encouraging and

discouraging behaviors and children's emotion recognition accuracy and bias scores for

anger and sadness. The first model predicted children's anger recognition accuracy. Parents'

encouraging and discouraging of children's discussion of anger were entered in the first step

and encouraging and discouraging of sadness were entered in the second step. None of the

models were significant and the final model explained 11% of the variance in children's

recognition of anger; see Table 30.

The second model predicted children's emotion recognition bias for anger. Parents'

encouraging and discouraging of children's discussion of anger were entered in the first step

and encouraging and discouraging of sadness were entered in the second step. The final

model explained 6% of variance in children's emotion recognition bias for anger but was not

significant; see Table 30.

Table 30. *Hierarchical Regressions with Parents' Behaviors Predicting Children's Accuracy and Bias for Anger, n = 39*

Variables	Anger accuracy β (*SE*)	Anger bias β (*SE*)
Step 1		
Encourage anger	-.33 *(.23)*	-.03 *(.22)*
Discourage anger	.65 *(.76)*	.74 *(.73)*
Step 2		
Encourage anger	-.34 *(.24)*	-.07 *(.23)*
Discourage anger	.61 *(.79)*	.88 *(.75)*
Encourage sadness	.15 *(.22)*	.09 *(.21)*
Discourage sadness	.27 *(.42)*	-.39 *(.40)*
	R^2	R^2
Step 1	.08	.03
Step 2	.11	.06

The next model predicted children's sad recognition accuracy. Parents' encouraging and discouraging of children's discussion of sadness were entered in the first step and encouraging and discouraging of anger were entered in the second step. The final model explained 12% of the variance in children's sad recognition accuracy but was not significant. Parents' discouraging of children's anger was a unique predictor of children's sad bias when controlling for the other parental behaviors; see Table 31.

The final model predicted children's emotion recognition bias for sadness. Parents' encouraging and discouraging of children's discussion of sadness were entered in the first step and encouraging and discouraging of anger were entered in the second step. The final model explained 15% of the variance in children's emotion recognition bias for sadness but was not significant. Parents' discouraging of children's anger was a unique predictor of children's sad bias when controlling for the other parental behaviors; see Table 31.

Table 31. *Hierarchical Regressions with Parents' Behaviors Predicting Children's Accuracy and Bias for Sadness, n = 39*

	Sadness accuracy	Sadness bias
Variables	β (*SE*)	β (*SE*)
Step 1		
Encourage sadness	-.02 *(.19)*	.02 *(.16)*
Discourage sadness	.17 *(.37)*	-.11 *(.30)*
Step 2		
Encourage sadness	-.06 *(.19)*	-.02 *(.15)*
Discourage sadness	.30 *(.36)*	.01 *(.29)*
Encourage anger	-.02 *(.20)*	.02 *(.16)*
Discourage anger	-1.46 *(.68)**	-1.29 *(.55)**
	R^2	R^2
Step 1	.01	.01
Step 2	.12	.15

*p< .05

Discussion

The current study examined parental emotion socialization for two distinct negative emotions, anger and sadness. The main goal was to better understand the socialization of children's anger and sadness by exploring two parenting mechanisms in the emotion socialization process: parents' beliefs about anger and sadness and parents' socialization behaviors for these two emotions. In addition the links between these parenting variables and children's affective social competence were explored. To this end, five aims were outlined: 1) to determine whether parents' have different beliefs about anger and sadness and if these beliefs differ depending on parents' and children's characteristics 2) to determine whether parents' encouraging and discouraging behaviors vary for anger and sadness and whether these behaviors differ by parents' and children's characteristics, 3) to examine the relationship between parents' beliefs about anger and sadness and parents' *in vivo* emotion socialization behaviors, 4) to determine whether children's encouraging and discouraging behaviors vary for anger and sadness and whether parents' beliefs and behaviors are associated with children's encouraging and discouraging behaviors, and 5) to assess whether parents' beliefs and behaviors regarding children's anger and sadness are related to children's emotion recognition accuracy and biases. Overall, there was some support for parents' unique beliefs and behaviors in regards to children's anger and sadness; however, limitations in the current study may have reduced the likelihood of finding support for several of the hypotheses. In the following discussion I first summarize the main findings for each of the

five aims. Second, I describe the limitations of the current study, and third, I generate directions for future research.

Aim 1: Parents' Beliefs About Children's Anger and Sadness

The first aim was to determine whether parents have different beliefs about children's anger and sadness. Parents' beliefs are their core philosophy towards children's emotions that influence their emotion socialization behaviors (Eisenberg et al., 1998; Gottman et al., 1996; Halberstadt, Dunsmore, et al., 2010; Parker et al., 2010). These beliefs are thought to be multifaceted and the current study focused on parents' beliefs about the value and danger of children's anger and sadness. Anger and sadness are two negative emotions with distinct functions in social situations (Allen & Badcock, 2003; Bowlby, 1980; Frijda, 1986, 1994; Stearns, 1993) and facial expressions (Ekman, 1993; Ekman & Friesen, 1971; Izard, 1971). They are also associated with specific outcomes in children such as internalizing and externalizing symptoms (Eisenberg et al., 1999; O'Neal & Magai, 2005; Zeman, Shipman, & Suveg, 2002). Due to the unique characteristics that distinguish anger and sadness, parents' beliefs were thought to differ for these two negative emotions. Parents were thought to have different underlying beliefs about anger and sadness based on evidence that parents use different socialization strategies for different negative emotions, including anger and sadness (Eisenberg et al., 1999; O'Neal & Magai, 2005; Shipman & Zeman, 2001; Zeman & Shipman, 1997). These different strategies must arise from somewhere and one possible source of variation is parents' underlying beliefs towards children's emotions. To date, no previous studies have distinguished parents' beliefs about these two negative emotions.

The factor analyses of the PBACE questionnaire described in the current study demonstrated that parents do have distinct beliefs about the value and danger of anger and sadness. Establishing these four scales of parents' beliefs adds greater specificity to our understanding of the socialization of children's negative emotions and particularly parents' beliefs about children's emotions. Following the empirical support for the four scales assessing parents' beliefs about the value and danger of children's anger and sadness, the first aim was explored.

The most important finding for Aim 1 was the evidence that parents have different beliefs for anger and sadness. This finding lends support to the overall goal of the current study of disentangling parents' emotion socialization beliefs for distinct emotions. Further, these findings illustrate that parents believe that children's experience and expression of sadness is more valuable when compared to anger. This finding supported the hypothesis that parents would value children's sadness more than anger and is consistent with analyses from another larger dataset (Stelter & Halberstadt, 2010), which also found a difference in parents' reported beliefs about the value of anger and sadness. In addition to these differences, parents had much stronger beliefs valuing children's anger and sadness than beliefs about the danger of anger and sadness, as was hypothesized.

As evidenced by the lack of mean differences, parents did not differentiate their beliefs about the danger of children's anger and sadness. In general, parents were overall less likely to endorse statements regarding the danger of emotion. It could be that parents spend less time thinking about the danger of children's emotions, which resulted in their having less differentiated beliefs about danger. Parents may also be reluctant to associate

anything dangerous with their children's emotions. However, this is somewhat surprising as evidence from another dataset demonstrated that parents did have different beliefs about how dangerous it is for children to experience and express these two emotions (Stelter & Halberstadt, 2010). It is possible that the somewhat smaller sample size of the current study limited the ability to detect these differences. The nature of the samples in the two studies may have also contributed to this discrepancy. The parents in the current study were required to make a significant time commitment in order to participate. Perhaps parents with more positive beliefs about emotion were more willing to invest time contributing to our understanding of emotion in the parent-child relationship, whereas parents with less positive beliefs about emotions decided not to volunteer for this type of study.

Parent gender and parents' beliefs about anger and sadness. In addition to parents having overall mean differences in their beliefs about the value and danger of anger and sadness, I hypothesized, based on previous theory (Eisenberg et al., 1998; Halberstadt et al., 2010) that these differences might vary based on parent and child characteristics such as parent gender, ethnicity, and child gender. There is well-established literature suggesting broad gender stereotypes for emotion in the United States. Most prominent is the notion that women are more emotional than men and there is some evidence to support this idea (Brody & Hall, 2000). In addition, mothers tend to discuss emotion with their children more frequently than fathers (Fivush, 1989). There are also emotion-specific stereotypes such that anger is a more masculine emotion but sadness and fear are more feminine emotions (Brody & Hall, 1993); this is consistent with the notion that anger is a more dominant emotion and sadness is more submissive (Averill, 1982; Valiente et al., 2003). These stereotypes were

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thought to influence parents' beliefs about the anger and sadness. In addition to the relevance of stereotypes, there is direct evidence that parents' perceptions of children's sadness and their desire for children to modify their sadness behaviors differ by parent gender (Cassano et al., 2007) such that fathers are less supportive and mothers more supportive of children's sadness (Chaplin, Cole, Zahn-Waxler, 2005).

The current study did find one interesting parent gender difference in parents' beliefs about anger and sadness such that mothers valued sadness more than anger (although fathers did not). Given the basic function of sadness in eliciting social support from others in times of need (Frijda, 1986); mothers may value sadness more because they view it as an opportunity to provide support for their child. Mothers are more likely to respond to children's sadness with encouragement compared to other strategies (Cassano et al., 2007) and are more frequently viewed by children as the parent to turn to when in need of social support (Booth-LaForce, Oh, Kim, Rubin, Rose-Krasnor, & Burgess, 2006; Zeman & Shipman, 1996). Finally, mothers also have experienced their own socialization histories, which likely emphasized the feminine, submissive nature of sadness and the acceptance of this emotion; thus, they have beliefs about the acceptability of children's emotions that reflect their experiences.

Parent education and parents' beliefs about anger and sadness. Parents' level of education was not initially hypothesized to be included as an important parent characteristic that would be associated with parents' beliefs. However, upon further consideration it was included to explore the moderating effect of education on parents' beliefs. This was in part due to recent analyses from another large dataset that included parents' beliefs about

children's emotions, which suggested there are important parent education differences in parents' beliefs (Craig, Stelter, & Halberstadt, 2010; Stelter & Halberstadt, 2010). The importance of parents' education for understanding parents' attitudes and behaviors is emerging from a variety of studies across many different areas of interest. Most studies have focused primarily on maternal education and found it to be associated with maternal parenting behaviors (Kelley, Power, & Wimbush, 1992; Tamis-LeMonda, Briggs, McClowry, & Snow, 2009), infant behavior (Bornstein, Hahn, Suwalsky, & Haynes, 2003), and children's cognitive outcomes (Gennetian, Magnuson, & Morris, 2008). Fathers' education has been linked to greater paternal involvement (Coley & Chase-Lansdale, 1999) and children's language and cognitive development (Tamis-LeMonda, Shannon, Cabrera, & Lamb, 2004). Parents' level of education is also highly related to socio-economic status (Mistry, Biesanz, Chien, Howes, & Benner, 2008) and parents' with higher socioeconomic status may have more resources available for helping them to address children's negative emotions.

In the current study, parents' beliefs about anger and sadness varied in very interesting ways depending on parents' level of education. More educated parents with a college degree or post-graduate work had more differentiated beliefs about the value and danger of anger and sadness. Specifically, they both valued sadness more than anger and the parents with the most education reported that anger was more dangerous than sadness.

There was also a linear relationship between education and parents' beliefs about the value of children's anger and sadness with the more educated parents more strongly endorsing the belief that anger and sadness were valuable compared to the less educated

parents. Similarly, for beliefs about the danger of anger and sadness, the less educated parents more strongly believed in the danger of anger and sadness than the more educated parents. The least educated group of parents with a high school degree did not differ in any of their beliefs but the other groups of parents with some college education, a college degree, and post-graduate education all valued anger more than they believed anger was dangerous.

In sum, parents with more education were more accepting of children's anger and sadness and did not believe children's anger and sadness were dangerous. Following the differentiation in parents' beliefs about the value of sadness compared to anger for the two most educated groups of parents, and the differentiation between the danger of anger and sadness of the most educated group of parents, it seems as though the more educated parents have more nuanced beliefs about children's anger and sadness.

The finding that parent education is associated with their beliefs about anger and sadness is new but not that surprising. Parental education is important for child outcomes including social and emotional development (Cutting & Dunn, 1999) and more specifically children's understanding of emotion (Brown & Dunn, 1996; Cutting & Dunn, 1999). Thus, there appears to be an important component of parents' educational opportunities that relates to parents' thinking about and behaviors in regard to children's emotions. Educational opportunities likely expose parents to information about the value of children's anger and sadness and the importance of all emotional experiences for children's development. For example, parents were less dismissive and more encouraging of children's emotional expression after participating in a parent education intervention curriculum that emphasized modeling and coaching of children's emotions (Havighurst, Harley, & Prior, 2004).

Various educational pursuits may have encouraged parents to spend more time thinking about children's emotions or exposed them to more books and articles that discuss topics like emotional intelligence. These activities could contribute to parents' development of more differentiated beliefs about anger and sadness.

The confounded relationship between education and socioeconomic status (Hauser, 1994) has several implications. Parents with less education, and thereby possibly lower socioeconomic status, may be more defensive in response to sadness as a more submissive emotion and thus want to protect children from experiencing and expressing sadness. More educated parents, with likely higher socioeconomic status, see the value in children experiencing all emotions and may see them as an opportunity to teach children about these emotions. Further exploration of the cultural dimension of individualism within the United States is also suggestive of these patterns. Kusserow (2004) suggests that "hard" individualism, associated with lower socioeconomic status, emphasizes independence and asserting ones' rights. Sadness, as a more vulnerable emotion, increases children's dependence on others and would thus be less valued by hard individualist parents. "Soft" individualism, more characteristic of higher socioeconomic status, emphasizes the exploration of one's abilities and personal identity, and may allow for greater acceptance of sadness.

Another possibility is that because parents with less education are also likely lower in socioeconomic status, they have fewer financial resources and experience most likely experience more major life stressors (Turner & Lloyd, 1995). Less educated adults do report more severe stressors than more educated adults (Grzywacz, Almedia, Neupert, & Ettner,

2004). This increased stress may result in parents feeling as though they do not have as much energy or many psychological resources available to play an active role in socializing anger and sadness or help children cope with these emotions, and research does suggest that the more stress parents experience, the less supportive they are in response to children's negative emotions (Nelson, O'Brien, Blankson, Calkins, & Keane, 2009). As a pragmatic consequence, they may not perceive these emotions as valuable. In fact, when parents experience more daily stress, children are more secure in the parent-child relationship only when parents' beliefs value children's negative emotions (Stelter & Halberstadt, 2010). There appear to be several explanations for the importance of parental education for understanding parents' beliefs about the value and danger of children's anger and sadness. The importance of parents' education for understanding their beliefs about emotions and subsequent socialization of children's anger and sadness is a promising area of future research.

Aim 2: Parents' Behaviors in Response to Children's Discussion of Anger and Sadness

The next aim was to explore parents' behaviors in response to children's discussion of anger and sadness and determine if parents exhibited different socialization behaviors in response to anger and sadness. The three mechanisms of parental socialization of emotion outlined by Eisenberg and colleagues (1998) were the focus of the current study. These mechanisms include: parental reactions to children's emotions, discussion of emotions, and expression of emotion. Much of the evidence for differential patterns of socialization for anger and sadness are from the literature on parents' reactions to children's emotions (e.g. O'Neal & Magai, 2005; Wong et al., 2008; 2009). Parents' emotion-related socialization

behaviors were assessed by coding their supportive or encouraging behaviors and their nonsupportive or discouraging behaviors in response to children's discussion of anger and sadness. During the LifeStories® game, parents and children were instructed to talk about a time when the other player made them feel angry and sad. This method did not bring about children's actual expression of anger and sadness; thus, parents were not really reacting to the child, but rather were engaging in a discussion of these experiences.

I hypothesized that the differences in parents' behaviors in response to children's discussion of anger and sadness would reflect their beliefs about children's emotions and as such, parents would be more encouraging of children's sadness versus anger, in part because sadness evokes support from others, particularly parents (Garside & Klimes-Dougan, 2002; Zeman & Shipman, 1996). Parents were also hypothesized to be more discouraging of children's anger compared to sadness, particularly because children would be discussing an example of anger that was directed towards the parent during the LifeStories® game. In general, there was little support for the hypothesis that parents' behaviors differed for anger and sadness. Parents' behaviors did reflect beliefs in one respect; parents' were more encouraging of both anger and sadness than they were discouraging, which follows the finding discussed previously that parents' valued both anger and sadness more strongly than they believed anger and sadness were dangerous. This finding may be in part due to the much greater frequency of encouraging behaviors that parents' engaged in over all compared to discouraging. That is not to say that parents were highly encouraging (mean scores were .91 and 1.22 for anger and sadness respectively), but discouraging behavior was quite rare.

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Thus, the study design may have precluded observing variation in parents' responses to sadness and anger.

The influence of parent gender, ethnicity, education, and child gender on parents' encouraging and discouraging of children's discussion of anger and sadness were also examined. These factors were thought to play a role in parents' behaviors as well as parents' beliefs, which were discussed in Aim 1 (Eisenberg et al., 1998; Halberstadt et al., 2010). Unlike the findings reported above with parents' beliefs, these factors did not influence parents' behaviors. The lack of support for differences in parents' behaviors based on parent gender, ethnicity, education, and child gender was surprising. Perhaps one reason these hypotheses were not supported is because parents' beliefs represent their broad, context-free philosophy towards children's anger and sadness whereas, parents' behaviors were assessed in a very specific context with their child. In fact, parents were instructed to respond to the PBACE questionnaire about "children in general" and not to think specifically about their own child.

Another possibility is that in the LifeStories® portion of the current study parents' behaviors were observed with their child in the game situation, which was also a part of a laboratory study (despite the researchers' efforts for ecological validity). As a result of this specific situation, parents may have relied more on script-like behavior for a game play situation, which would be less informed by their underlying beliefs and own characteristics such as culture and gender. Other possible limitations of the current study that contributed to the failure to support these hypotheses are discussed in the limitations section below.

Aim 3: Relations Between Parents' Beliefs and Behaviors for Anger and Sadness

The next major question of interest was whether parents' beliefs about children's anger and sadness would differentially impact their behaviors in response to these emotions. Parents' beliefs about the value and danger of anger were thought to be more strongly associated with their encouraging and discouraging of anger compared to their beliefs about sadness. There were no direct relationships for anger; however, there was one direct relationship between parents' belief about the value of sadness and parents' discouraging of children's sadness. More specifically, parents who valued children's sadness were less discouraging of children's sadness. This finding is consistent with what would be expected.

Other correlations examining the direct relationships between parents' beliefs and behaviors failed to support the hypothesis that parents' beliefs about sadness were uniquely related to their behaviors for children's sadness. For example, parents who valued sadness were also less discouraging of children's anger. Parents who reported strong belief in the danger of children's sadness were less encouraging but more discouraging of anger. These findings were counter to what was expected. Upon closer examination of the relations between parents' beliefs about anger and sadness and parents' behaviors, beliefs about sadness were more frequently associated than beliefs about anger with parents' encouraging and discouraging of anger. In fact, 4 out of 8 correlations were significant for beliefs about sadness compared to 0 out of 8 for beliefs about anger. This does not appear to be a function of more stable scores for sadness considering there are actually fewer items nor reliability since the reliability is actually lower for beliefs about sadness. Therefore, this begs the question of why parents' sadness beliefs are overall more associated with parents'

encouraging and discouraging behaviors. If this finding is replicated in future studies, research should explore the nature of parents' beliefs about anger and sadness to understand why sadness beliefs are more associated with parents' behaviors.

To further examine of the direct relationships between parents' beliefs and behaviors, regression analyses were conducted. The relationship between parents' beliefs about the value and danger of anger and their socialization behaviors towards anger were compared directly to the relationship between parents' beliefs about the value and danger of sadness and their socialization behaviors. The same relationships were tested for sadness. Similar to the correlations, parents' belief about the danger of sadness was more predictive of parents' discouraging of anger than any of the other beliefs about emotions. For parents' discouraging of both anger and sadness, the models with all four parental beliefs did explain a significant amount of variance in parents' discouraging. However, overall the results from these analyses were inconclusive.

The failure of the current study to support the hypothesis that parents' beliefs are uniquely related to their behaviors for similar emotions is likely a result of limitations in the current study. There is strong evidence to suggest that parents' beliefs about children's emotions inform their subsequent behaviors (Dunsmore & Halberstadt 1997; Wong et al., 2008, 2009). Further, Affect theory and Differential Emotions theory both posit that parents' socialization strategies are thought to differ depending on children's expressed emotion (Izard, 1991; Tomkins, 1991). Research has begun to demonstrate parents' different emotion socialization strategies and behaviors in response to children's different emotions (Casey & Fuller, 1994; O'Neal & Magai, 2005; Shipman & Zeman, 2001). However, most of the

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currently available evidence for the notion that parents use different socialization behaviors for different emotions is based on child and adolescent reports of parents' behaviors (e.g. Casey & Fuller, 1994; O'Neal & Magai, 2005) and in some cases parents' self-reported behaviors (e.g. Casey & Fuller, 1994; Cassano et al., 2007).

Thus, the current study is the first known study to examine parents' *in vivo* emotion socialization behaviors separately for children's discussion of anger and sadness. As this is the first study that distinguishes between parents' behaviors for anger and sadness, further refinement of the assessment of these behaviors is clearly needed.

Aim 4: Parents' Beliefs and Behaviors, and Children's Affective Social Competence

In addition to exploring parents' beliefs and socialization behaviors for children's anger and sadness, the current study also aimed to determine whether parents' beliefs and behaviors for these two distinct emotions had implications for children's affective social competence and particularly children's behavior in regard to discussing anger and sadness. This study is the first known exploration of children's *in vivo* behaviors in response to two specific parent emotions, anger and sadness. It was also the first to link parents' beliefs and parents' *in vivo* behaviors regarding these two emotions directly to children's behaviors in response to another social partner's (parent) expression these emotions.

A large body of literature links parents' socialization behaviors and children's emotion-related outcomes (see Eisenberg et al., 1998 for a review). Parents' beliefs are also relevant for children's emotion-related behaviors including coping strategies (Halberstadt et al., 2008) and aggression (Ramsden & Hubbard, 2002). Children's emotion-related behaviors towards their parents have rarely been the focus of empirical research though there

is some evidence within the literature on interparental conflict that suggests children do play an active role in the socialization process by generating different strategies for helping to reduce parents' anger (e.g. Covell & Miles, 1992). To contribute to the literature on the role of parental socialization on children's emotion-related behaviors, the current study focused on two components of the Affective Social Competence Model (Halberstadt et al., 2001).

First, differences in children's encouraging and discouraging in response to their parents' anger and sadness were explored, however no differences were observed. I also tested whether children's behaviors would vary based on their own gender, their parents' gender, and their ethnicity. None of these parent and child characteristics influenced children's encouraging and discouraging behaviors.

Next, the relationships between parents' beliefs and behaviors and children's encouraging and discouraging of parents' discussions of anger and sadness were examined. Interestingly, children were less encouraging of their parents' anger when parents reported stronger beliefs about the danger of children's anger. Similarly, children were less encouraging of parents' anger when parents reported stronger beliefs about the danger of children's sadness. The similarity of these relationships in terms of strength and direction does not support the notion that the relationship between parents' beliefs and children's own emotion behaviors is different for anger and sadness. However, it does provide some support for the bidirectionality between parents' beliefs and children's behaviors. It would appear that parents' beliefs about the danger of both anger and sadness are being communicated to their children, and, in response, children are less likely to encourage their parents' discussion of anger. Children may have generalized parents' beliefs that anger and sadness are

dangerous and interpret the discussion of anger as potentially dangerous or problematic and therefore not something to be encouraged or supported.

I hypothesized that parents' encouraging and discouraging behaviors were one type of mechanism through which parents communicated their beliefs to children and therefore the direct relationships between parents' encouraging and discouraging of children's discussion of anger and sadness and children's encouraging and discouraging of parents' discussion of anger and sadness were examined. Unfortunately, there were no relationships between parents' own encouraging and discouraging behaviors and children's behaviors.

Although there were very few direct relationships between parents' beliefs and behaviors and children's behaviors, it was possible that relations among parents' beliefs and behaviors were masking these relations. The relationships between the similarly valenced parental beliefs and behaviors and children's own behaviors were examined to determine if parents' beliefs and behaviors for anger/sadness were uniquely related to children's encouraging and discouraging of parents' discussion of anger and sadness.

When predicting children's encouraging of parents' discussion of anger, parents who had stronger beliefs about the danger of anger had children who were less encouraging of parents' discussion of anger, when parents' beliefs about the value of anger were controlled. Once parents' beliefs about sadness were also added to predict children's encouraging of parents' anger, this unique relationship was no longer significant, although it remained the strongest predictor of children's encouraging of anger. Unfortunately, this was the only evidence in the current study that lent some support to the hypothesis that there is a unique relationship between parents' beliefs about two distinct negative emotions, anger and

sadness, and children's own behaviors for these two emotions. Because this relationship was not significant once the other beliefs were taken into consideration, it is difficult to draw conclusions about this finding, particularly in light of the significant bivariate relationships. That being said, the magnitude of the relationships between parents' encouraging and discouraging of children's anger and children's encouraging of parents' discussion of anger are large; however, the small sample size may have constrained the ability to detect significant relationships where they in fact exist.

There was also limited support for the importance of parents' encouraging and discouraging behaviors as predictors of children's behaviors. When predicting children's encouraging of parents' discussion of sadness, parents' discouraging of sadness was uniquely related such that the more parents' discouraged children's sadness, the less children encouraged their parents' sadness. However, parents' discouraging of anger was also related to children's encouraging of sadness such that the more parents' discouraged children's anger, the more children encouraged their parents' sadness. The positive relationship between parents' discouraging of anger and children's encouraging of parents' discussion of sadness is somewhat counterintiuitive, although it is interesting that discouraging is contributing to children's behaviors. Given the small samples available for these analyses these findings do suggest parents' behaviors and children's behaviors are linked in some way.

Although the relationships among parents' behaviors and children's behaviors appear to be crossing over in their impact to other emotions, the finding that parents' discouraging behaviors were associated with less child encouraging is very promising for future studies.

This provides some preliminary evidence for the link between parents' and children's *in vivo* behaviors and suggests that with a larger sample more linkages in the dynamic socialization relationship between parents' and children may be revealed.

Aim 5: Parents' Beliefs and Behaviors and Children's Emotion Recognition

The final aim of interest was whether parents' beliefs and behaviors for anger and sadness were associated with another aspect of affective social competence, namely, children's basic ability to identify emotions based on facial expressions. These skills have been shown to be important for children's interpersonal relations (e.g., Ensor & Hughes, 2005; Garner, Dunsmore, Southam-Gerrow, 2008; Halberstadt et al., 2001; Hubbard & Dearing, 2004; Izard, Fine, Schultz, Mostow, Ackerman, & Youngstrom, 2001), behavioral problems (Denham et al., 2002), and school-related outcomes (e.g. Garner & Waajid, 2008; Izard et al., 2001; Nowicki & Duke, 1992). In the process of correctly identifying facial expressions, children may exhibit a bias that influences their understanding of what others are feeling. Misidentifying facial expressions in a negative way, such as attributing anger to a neutral expression, has been associated with negative outcomes including more aggressive behavior (Fine et al., 2004; Garner et al., 2008) and peer rejection (Schultz, et al., 2000). Given the importance of these skills for children's outcomes, understanding what factors influence these skills and biases is of interest to psychologists and others who work with children. Thus, children's emotion recognition skills for anger and sadness and emotion recognition biases for anger and sadness were assessed.

I hypothesized that parents' beliefs and behaviors for children's anger and sadness would be uniquely associated with children's emotion recognition skills and biases for anger

and sadness. Correlations between these constructs did not support any direct relationship between parents' beliefs or behaviors related to children's anger and sadness and children's emotion recognition skills for anger and sadness. Direct relationships were also not supported for children's emotion recognition biases. Thus, there was no support for the importance of parents' beliefs about anger and sadness for children's emotion recognition skills and biases for anger and sadness. Further, there was no support for the importance of parents' encouraging and discouraging of anger and sadness for children's' emotion recognition skills and biases for anger and sadness.

It is somewhat surprising that parents' beliefs about children's anger and sadness did not relate to children's emotion recognition skills for anger and sadness as there is some evidence supporting this link (Dunsmore & Karn, 2001, 2004; Dunsmore et al., 2009). However, the lack of support for relationships between parents' beliefs and behaviors for anger and sadness and children's recognition biases for anger and sadness is less surprising. These analyses were very exploratory as little is known about how parents' emotion-specific beliefs and behaviors are related to children's emotion recognition biases. The failure of the current study to find evidence supporting these relationships should be interpreted with caution, however, given the limitations of the current study. In particular, the limited sample size and the assessment tool for children's emotions recognition skills and biases could be improved upon in future studies.

Although many of the analyses related to the five aims of this study failed to support the proposed hypotheses and the major goal of the study, some of the limitations of the study may have increased the likelihood of Type II error, and thus may have precluded finding

relationships that do exist. The following discussion outlines more general reasons for the mixed and sometimes inconclusive findings.

Limitations

The first limitation of the current study was the size of the sample, which constrained the ability to detect significant differences. Power analyses had suggested that there should be adequate power to detect medium and large effects for Aims 1a and b, 2a, 3, 4a, 4c, and 5 but that the power was more limited for Aims 2b and 4b. Every attempt was made to include the maximum number of participants available for all analyses in order to fully explore all the available data. Unfortunately, there was little more that could be done in order to remedy this limitation.

For the analyses examining differences in parents' beliefs based on parent gender, ethnicity, education, and child gender there were additional constraints based on the size of the sample. Regarding parent gender, there was unequal representation of mothers compared to fathers. 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 the present sample is 75% mothers, it is both a limitation and a strength that fathers are included at all. There was also rather unequal representation of parents with only a high school degree compared to the other education groups. This is also a difficult group of parents to recruit for research participation. Future research should specifically target these populations in order to better understand their beliefs and behaviors regarding children's anger and sadness.

Beyond issues related to the sample size are questions about how the various constructs were operationalized. First, the procedure used in the current study, particularly for the LifeStories® game also presented some challenges. Despite the researcher's best attempts to make the experimental paradigm ecologically valid, the game was the only opportunity for parents to demonstrate their socialization behaviors. During the game, each dyad was given two cards that directly asked them to report on experiences of anger and two that asked about sadness. Ideally, both the parent and the child in each dyad responded to both the anger and sad LifeStories® cards. In reality, as was discussed previously, this did not always happen, resulting in a smaller sample available to analyze the aims related to parents' and children's behaviors for anger and sadness. It also gave parents and children very little opportunity to spend much time demonstrating their socialization behaviors. In addition, the game situation may have encouraged parents (and especially children) to spend less time discussing their responses to the cards during the game in order to get through the game as quickly as possible and be the "winner" (even though there was no actual reward for winning).

Examining parents' and children's behaviors across a variety of different contexts would likely bring about more opportunities to observe what they do in response to anger and sadness. For example, a reminiscing task in which parents and children are instructed to discuss a time when the child felt angry and sad might be more fruitful for observing parents' socialization behaviors (e.g. Bohanek, Marin, Fivush, & Duke, 2006). Observational studies that occur at the dinner table or during car rides may also better capture parents' "in the moment" socialization of specific emotions. I expect that in these situations there would be

more discouraging behaviors than were observed in the current study. This type of situation may also allow for the examination of the bidirectional influences of parents' and children's behaviors discussed below.

Participants were also videotaped while playing the game and while every attempt was made to make the video recording as discrete as possible the equipment was in the room and visible to the participants. Parents and children were aware of the two cameras videotaping their faces and upper torsos, and may well have been on "best behavior", reducing the likelihood of observing any discouraging behaviors. When parents and children were observed demonstrating socialization behaviors for either anger or sadness, it was much more likely to be an encouraging or supportive response than a discouraging response, which was reflected in the frequencies and highly skewed distribution of scores.

Related to the paradigm for observing parents' and children's behaviors is the coding scheme used to summarize their behaviors. Although the coding scheme was comprehensive and reliable, it may have missed some of the subtle nuances of parents' and children's behaviors. In most cases, the observation of actual behaviors is considered preferable to self-reports which are based on the individuals' own perceptions and biases. Within the socialization literature, however, there has been some debate over the utility and accuracy of self-report versus observational ratings (e.g. Moskowitz & Schwarz, 1982). The lack of support for many of the hypotheses about parents' and children's behaviors in the current study lends some support to the position that it is difficult to observe and interpret the rare, real-life moments when parents respond to children's negative emotions (Eisenberg et al., 1999; Garside & Klimes-Dougan, 2002).

A somewhat minor point regarding the assessment of parents' beliefs is the reliability of these scales. Although reliability is acceptable for the scales assessing parents' beliefs about the value and danger of children's anger and sadness, there was a small selection of items for parents' beliefs about the value and danger of sadness. The correlation between parents' beliefs about the danger of anger and sadness is also stronger than desirable; however, a large portion of unshared variance remained free to vary in relationships with other variables.

A final limitation was the assessment of children's emotion recognition skills and biases. The DANVA2 measure included 24 faces of adults expressing either anger, sadness, fear, or happiness. These faces have not been coded using the Facial Action Coding System (FACS), which is thought to be the gold standard in terms of determining whether a face is accurately depicting an emotion. More recently developed emotion recognition assessment tools may more accurately measure children's skills and future research should take advantage of other measures.

Despite these limitations and the lack of conclusive support for all five aims, the current study does make significant contributions to our knowledge about the socialization of children's anger and sadness. Factor analyses in the current study of the PBACE measure established four distinct scales for the value and danger of children's anger and sadness. Parents' mean scores on these four scales suggest that parents do have different beliefs about the value of anger and sadness as well as the danger of anger and sadness. These beliefs also differed by parent gender and education.

The inclusion of parents from three distinct ethnic groups is also a strength. It should also be noted that in addition to working diligently to include a diverse sample, great care was taken throughout the development, data collection, and data coding of the current study to ensure the process was sensitive to cultural and ethnic differences. For example, an ethnically diverse team of researchers and research assistants was involved throughout the current study. In light of the important influence of culture on socialization, more researchers should strive to examine the role of culture and ethnicity.

Future Directions

Results from the current study demonstrated that distinguishing between these beliefs adds greater specificity to our understanding of the socialization of children's negative emotions. Future analyses and studies with larger samples should examine the importance of these distinct beliefs about children's anger and sadness for our understanding of parents' behaviors, children's behaviors, and outcomes.

The current study has provided some excellent evidence to build on for future studies. First, although the proposed study primarily discusses the expected effects as the influence of parents' socialization on children's outcomes, there are two sides of the equation in the process of emotion socialization. On one side the parent is influencing the child and the child is absorbing their parents' socialization behaviors. On the other side, children are socializing their parents through their reactions, expression, and discussion of emotion. There is a dearth of research examining how children contribute to emotion socialization interactions with their parents and this area is ripe for future studies (Schermerhorn et al., 2005). More specifically, there are no known descriptions or measures of children's

reactions to parents' emotions. Children likely have a variety of strategies for responding to, influencing, or coping with their parents' expressions of emotions. Related to the issue of bidirectionality, a longitudinal study or analysis of the "in the moment" interactions between parents and children could reveal more details of the bidirectionality of the emotion socialization process.

Given the interesting findings for education group differences in parents' beliefs as well as the hypothesized importance of parental stress, interactions between parents' education, stress, and beliefs about anger and sadness should be explored. I would hypothesize that parents with less education who have more stress would believe children's sadness is less valuable than their anger, as a result of the social support parents would have available to provide children in times of sadness. Parents with more education who reported experiencing stress may be buffered by their higher educational status or social support networks.

The next steps are to build upon the evidence in the current study and examine other beliefs parents have about anger and sadness. For example, parents might have different beliefs about children's ability to control their anger and sadness or their role in guiding children's anger and sadness. Parents' beliefs about the development of children's anger and sadness over time could also vary. These beliefs may also moderate the relationships between parents' beliefs about the value of anger and sadness and their behaviors. For example, the relationship between parents' beliefs about the value of sadness and their encouraging of sadness may be stronger when parents also believe they should help guide children's expression of sadness. As another example, the relationship between parents'

beliefs about the danger of children's anger may only be related to their discouraging of children's anger when they strongly believe that children should be able to control their anger.

Another next step is to continue to explore parents' beliefs about the value and danger of children's anger and sadness in another available dataset with a much larger sample of parents ($n = 1,108$). This dataset also has parents' self-reported reactions to children's anger and sadness. These analyses may present a clearer picture of the relations among these variables and add further support to the findings outlined in the current study with respect to the differences in parents' beliefs overall and by parent gender and education. It is also helpful to note that this other sample includes a larger group of parents with lower education, which the current study was lacking.

The current study was a thorough examination of a model of parents' socialization for children's anger and sadness, which included a diverse sample of parents and observations of their *in vivo* behaviors. The model also tested the relations between parents' beliefs and behaviors and two aspects of children's affective social competence and includes children's *in vivo* behaviors. This study is groundbreaking in several ways, including being the first known study to directly examine parents' beliefs about children's anger and sadness, and the first examination of parents' and children's *in vivo* emotion socialization behaviors regarding separately for children's anger and sadness. Although a number of the hypotheses were not supported, the overall differences in parents' beliefs about the value and danger of children's anger and sadness, which were subsequently modified by parent gender and parent education, could make a useful contribution to the parental emotion socialization literature. Similarly,

the findings of differences in parents' encouraging and discouraging behaviors of children's discussion of anger and sadness are novel and a useful addition to the currently available literature. In addition, although modest, the finding that parents' discouraging behaviors were associated with children's encouraging and discouraging behaviors in response to parents' discussion of sadness could add a contribution to the field. There is so little research specifically examining the socialization of these distinct emotions that combining these findings could give other researchers evidence to build on in future studies. In sum, the current study was a broad exploration that provides a number of interesting findings to build upon and develop a promising program of research that can contribute to our understanding of emotion socialization processes for anger and sadness and children's overall healthy emotional development.

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Footnotes

[1] The missing data are the result of some parents and children randomly not drawing either of the anger or sad cards from the decks of available cards during the LifeStories® game. Although the researchers attempted to strategically place these cards at the top of the decks, depending on the number of "turns" each dyad had they did not always have an opportunity to draw both of these cards during the game. The number of "turns" was determined by the roll of the dice. There were also four different decks of cards that participants could draw from depending on where they landed on the game board, which further reduced the probability that they would draw both the anger and the sad cards during the game.

In an attempt to increase the sample and reduce the amount of missing data, I explored whether the argue/disagreement card could replace the anger card when it was not available but the sad card was. The results are described below.

Parents' reactions to the argue/disagreement card were similar to their responses to the card specifically asking about anger. As evidence of their similarity, the frequency of encouraging was almost exactly the same for both angry and argue/disagreement cards ($n = 39$ for angry cards, $n = 38$ for argue/disagreement cards); the frequency of any discouraging was exactly the same for the angry and argue/disagreement cards ($n = 8$ for both angry and argue/disagreement). These findings suggested that the argue/disagreement card could replace the anger card for those participants who did not receive the anger card.

However, further analyses of the relationship between parents' encouraging and discouraging of children's responses to the angry and argue/disagreement LifeStories® cards found that these behaviors were not significantly correlated ($p > .05$). Similarly, children's encouraging and discouraging of parents' responses to the angry and argue LifeStories® cards were not significantly correlated ($p > .05$). This suggested that, in fact, these two cards are not similar enough to use the argue/disagreement card as a substitution for the angry card when the angry card was available. Thus, I determined it was not worth increasing the sample size slightly by making this substitution. To be sure, however, I conducted analyses after creating a variable in which the argue card was substituted for the angry card when it was not available and there were no noteworthy differences in any of the analyses.

[2]When players selected an Alternative card they did not engage in any discussion of the card and were coded as avoiding the question. Participants gave many reasons for not responding to a card and selecting an Alternative card instead. One of the most popular reasons was that they could not think of any response to the card. The parent or child drew an angry card a total of 139 times and of that total, either the parent or child avoided the card and decided to select an Alternative card 12 times, which resulted in no significant association between drawing an angry card and choosing an Alternative $\chi^2(2) = 4.34$, $p > .05$, compared to what would be expected by chance. The parent or child drew a sad card a total of 143 times and of that total, either the parent or child avoided the card and selected an Alternative card 21 times, which resulted in no significant association between drawing a sad card and choosing an Alternative card, $\chi^2(2) = 4.41$, $p > .05$, compared to what would be expected by chance.

APPENDIX

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

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

Number	Item
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 B: NC State Demographic Questionnaire

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? _____

Appendix C: VTech Demographic Questionnaire

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.

Yourself: Age? _____

Relationship to child? (e.g., mother, father, grandmother, stepfather, etc.) _____

Education (please check one):
HS begun ____   HS degree ____   College begun ____   College degree ____   Grad begun ____
Grad degree ____

How would you describe your ethnic background? (check as many as apply):
African American_____   Asian American_____ European American____
Hispanic American_____   Native American_____ Other__

Appendix D: Encouraging Discouraging Coding

Encouraging
- '.' = player avoided the card
- 0 = other player shows no encouragement; for example, does not respond or is discouraging
- 1 = other player acknowledges the facts or discusses the *event*
  - ➢ this is more than just saying "okay" and moving on; "That's true" is a zero unless there is a strong non-verbal attached to it. Or "alright".
  - ➢ Examples: "yeah, and we were waiting for her to try on jeans," "oh, now I remember that," "what was that game we were playing?"
- 2 = other player acknowledges the *emotion* (can be nonverbal)
  1. nonverbal: mirroring of emotion; pat on back; shows awareness of the emotion. Here is a caveat about smiling though: Smiling is especially difficult to use as evidence because of the other purposes of smiling, such as social facilitation of an interaction. It is not always reflective of what a person is feeling, but is also sometimes motivational to encourage the other person to be sharing a social experience. So for smiling and any other nonverbal expression, if not sure what is being conveyed, then err on the side of a neutral score. Be confident of your codes as you move away from 0.
  2. this should be a clear acknowledgement of the *emotion* and not of the event
  3. even if the other player joins in the conversation or shows recognition of the event it doesn't mean they have acknowledged the expressed emotion per se
- 3 = coaching (validate or label emotions)
  - ➢ talking about causes and consequences of the emotion
  - ➢ other player helps the responding player to verbally label the emotions in their response
  - ➢ other player seeks intimacy or teaching opportunity about the responding player's emotion
  - ➢ other player verbally empathizes with or validates the responding player's emotion
  - ➢ other player helps the responding player to problem solve
  - ➢ Examples: 'How did you feel when that happened?', 'Were you angry?', 'I could tell you were mad because you walked away', 'Can you think of anything that would have made it easier?', 'Yeah, I can see how you feel…'
  - ➢ If parent is coaching, ie. asking questions about emotions, and child responds to questions, consider this as reference to emotion

Discouraging
- '.' = player avoided the card
- 0 = other player shows no discouragement; for example, does not respond or is encouraging
- 1 = other player argues the events/facts or dismisses the event
  - ➢ this is more than just moving on rapidly
  - ➢ Examples: "I did not do that," "whatever," making a rude noise
- 2 = other player is dismissive of the *emotion*
  - ➢ Invalidate, criticize, avoid or actively distract the responding player from emotions
  - ➢ Devalue the responding player's emotions verbally or nonverbally
  - ➢ Convey the notion that the given emotion is wrong or unimportant

- Belittle the responding player's expression or create an unsafe climate for discussing feelings.
- Examples: 'It wasn't anything to get upset over', 'Let's just not talk about that'
- Examples of dismissive behavior: abrupt change of topic, talking over the person, engaging in distracting behaviors, making superficial off-task comments
- 3 = other player overrides the emotion
  - other player corrects the responding player in his/her emotion. Tells the responding player that in fact it was a different emotion that he or she felt or that he or she really felt nothing.
  - Examples: 'No, you weren't upset about that, you really liked it', 'you did not even notice that at the time, you're just making it up now'
- 4 = other player shows contempt
  - other player devalues or dismisses the responding player *as a person* because of his/her emotions
  - examples: 'only a stupidhead would get upset over something like that', 'why are you always too sensitive?'
  - eye rolling and other contemptuous expressions and laughter or ridicule; name calling: 'he's a brat when he's angry', 'don't be a crybaby'.

General Comments:
- Higher scores trump lower ones: if you see evidence for both acknowledging of the event AND of the emotion, you should code that as *Encouraging 3*. In other words, when separate pieces of evidence support a lower and higher score, go with the higher score
- When one piece of evidence is in between two scores, go with the lower one. For instance, if you are undecided between a '2' and a '3' for a reference to emotion, go with a '2' – be conservative
- Both encouragement and discouragement are always coded – responses may show both encouragement and discouragement, one or the other, or neither
- Can have encouragement/discouragement without any reference to emotion originally being brought up by the responding player
- Dramatization of event can be seen as mirroring the expressed emotion
- When conversation is off topic, don't code

More Examples:

Encouraging 2:

 Child is talking about a situation that made him sad and Mom says: "I can understand why you are sad, but ..."

 In this case, Mom clearly acknowledges the child's emotion even though she quickly goes on to talk about the reason she did what she did.

Encouraging 3:

 Mom talks about something that made her mad and at some point the child says: "why did it make you mad?". This shows awareness on the part of the child to Mom's feelings. In addition, by asking "why", the child is seeking to further understand the cause of that emotion.

Discouraging 2:

 Mom talks about a time she was upset and how her feelings were hurt. Although child acknowledges her feelings he proceeds to say that "you were being mean". He therefore, devalues her feelings by putting the blame on her.