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PARENTAL META-EMOTION:  
VALIDITY OF THE EMOTION-RELATED PARENTING STYLES SELF-TEST AND  
EMOTION-RELATED PARENTING STYLES

by

Shawna Alysia Scott

A Thesis  
Submitted to the Faculty of Graduate Studies  
through the Department of Psychology  
in Partial Fulfillment of the Requirements for  
the Degree of Master of Arts at the  
University of Windsor

Windsor, Ontario, Canada

2012

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Validity of the Emotion-Related Parenting Styles Self-Test and Emotion-Related  
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Chair of Defense

## DECLARATION OF ORIGINALITY

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## ABSTRACT

Parents' meta-emotion philosophy (Gottman, Katz, & Hooven, 1996) includes their thoughts and feelings about emotions. The Meta-Emotion Interview (Katz & Gottman, 1986), used to evaluate meta-emotion philosophy, has been found to be related to emotion socialization practices. Based on the interview, long and short form Likert-type measures have been developed (see Gottman & DeClaire, 1997; Hakim-Larson, Parker, Lee, Goodwin, & Voelker, 2006; Paterson, Babb, Camodeca, Goodwin, Hakim-Larson, Voelker, & Gragg, 2012). The purpose of the present study was to evaluate the construct validity of the questionnaires in conjunction with the original interview. Archival data included 33 mothers with at least one child between ages 3 to 5. When mothers' scores on the questionnaires correlated with dimensions scores on the interview, the coefficients were in the expected directions, suggesting further evidence for the construct validity of the long and short forms. Additional findings and study implications are discussed.

## DEDICATION

My thesis is dedicated to the primary emotion socializers in my life: my parents. Mom, you are a source of solace and unconditional love. Dad, you always bring humour into my life when I need a boost. To my siblings Ryan, Stephanie, Jamie, Christopher, and Tyler: as the eldest of six children, I am supposed to be the leader of the pack. One day, I hope you will all realize that you are the ones who inspire me. Dereck, you have encouraged me every step of the way. My life would certainly be quite different without you, and I thank you for bringing out the best in me. To my friends who have stood by my side as my cheerleaders: “Go ninja, go ninja, go!”

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## CHAPTER I

### INTRODUCTION

Parents teach their children how to express, cope with, and respond to emotions in everyday interactions. Parental meta-emotion philosophy is a construct that encompasses thoughts and feelings about emotions and has been found to translate into emotion socialization practices. The Meta-Emotion Interview (Katz & Gottman, 1986) has been the principal way to measure this construct. In this interview, parents describe their past and current experiences with the emotions of sadness, anger, and fear; goals in teaching their children about these emotions; and understanding how their children express and cope with emotions. This interview produces continuous scores on dimensions including parents' awareness, acceptance, and regulation of their own emotions, as well as the parents' awareness, acceptance, coaching, and regulation of their children's emotions.

Because the Meta-Emotion Interview is time intensive to administer and score, three questionnaire versions were developed based on the framework by Gottman, Katz, and Hooven (1996): the true-false version (Gottman & DeClaire, 1997), the long form Likert scale called the Emotion-Related Parenting Styles Self-Test – Likert (ERPSST-L; Gottman & DeClaire, 1997, modified by Hakim-Larson, Parker, Lee, Goodwin, & Voelker, 2006), and the short form Likert scale called the Emotion Related Parenting Styles (ERPS; Gottman & DeClaire, 1997, modified by Paterson, Babb, Camodeca, Goodwin, Hakim-Larson, Voelker, & Gragg, 2012).

The ERPSST-L is an 81-item, 5-point Likert-type self-report measure of parental meta-emotion. Relative to the Meta-Emotion Interview, the ERPSST-L is time-efficient. Each item on the ERPSST-L describes one of the four emotion-related parenting styles

originally identified by Gottman, Katz, and Hooven (1996): emotion coaching, laissez-faire, dismissing, and disapproving. The ERPS is a 20-item short-form Likert-type questionnaire that is a subset of the items in the ERPSST-L. The ERPS produces continuous scores on four emotion-related parenting styles: emotion coaching, parental acceptance of negative emotion, parental rejection of negative emotion, and feelings of uncertainty/ineffectiveness in emotion socialization.

To date, these two measures have been evaluated in terms of internal validity, convergent validity, and some preliminary construct validity. The purpose of the present study was to test the construct validity of both the ERPSST-L and the ERPS. Construct validity would be demonstrated if scores on the ERPSST-L and ERPS correlate with scores on the Meta-Emotion Interview in the directions predicted by meta-emotion theory.

The following sections in the present paper include reviews of the process of parental emotion socialization, the meta-emotion construct, and parental meta-emotion philosophy. Next, emotion-related parenting styles will be distinguished from other parenting styles. The Meta-Emotion Interview and three measures of parental meta-emotion will be described, followed by the objectives, rationale, and hypotheses of the present study.

## CHAPTER II

### REVIEW OF LITERATURE

#### **The Process of Emotion Socialization**

It is well-documented that socialization plays a substantial role in the emotional development of children. For young children, parents are considered to be the most essential socializers of emotional and social competence. Interest in emotion socialization was largely influenced by Haim Ginott (1965), who emphasized that socializers can teach children to understand emotions by using empathy and respectful communication (as cited in Gottman & DeClaire, 1997, p. 34).

This emotion socialization process is thought to be bidirectional, in that children can influence parenting behaviours just like parenting behaviours can influence children (Saarni, 1999). For example, a mother may adjust her interactions with her child based on her perceptions of the child's temperament (Eisenberg, 1996). Moreover, a mother may adjust her interactions with her child based on how she perceives her child's tendencies in dealing with emotions (Fabes, Eisenberg, Karbon, Bernzweig, Speer, & Carlo, 1994). To illustrate this bidirectional process, Fabes et al. (1994) assessed emotional, physiological, and prosocial interpersonal reactivity between parent-child dyads during a storytelling task. Child age differences were found in which mothers of the young children were more likely to attempt to induce a positive mood in the children in order to minimize their unpleasant responses. Because younger children are often thought to have emotional skills that are less advanced compared to older children, child age influenced parenting behaviours. It is also relevant to note that this tendency

primarily occurred when mothers of young children believed that the child would likely become emotionally aroused in the storytelling task. Additionally, this finding by Fabes et al. (1994) suggested that parental attitudes and beliefs do play a role in a parent's shaping and reactivity to the emotional experiences of children.

Emotion socialization, which is thought to be shaped by the attitudes, culture, and beliefs of parents, can be direct or indirect (Eisenberg, Spinrad, & Cumberland, 1998), and the recognition of the need to examine these factors has been increasing (Dunsmore, Her, Halberstadt, & Perez-Rivera, 2009). Direct socialization involves the behaviours of the socializer that reflect his or her cognitions and goals related to emotions (Eisenberg, Cumberland, & Spinrad, 1998). The three main ways parents directly socialize emotional development in children include parental reactions to children's emotion, parental expressiveness, and parent-child discussion of emotion (Eisenberg, Cumberland, & Spinrad, 1998). On the contrary, indirect socialization involves exchanges and behaviours that affect child's emotional experience, expression, and understanding; however, it is not a direct reflection of the socializer's beliefs and goals related to emotion (Eisenberg, Spinrad, & Cumberland, 1998). Thus, emotion socialization occurs through both direct and indirect pathways.

### **The Construct of Meta-Emotion in Parents, Children, and Adolescents**

Meta-emotion encompasses feelings, cognitions, and actions related to the experience of emotions (Gottman et al., 1996). Measuring this construct can be useful in better understanding how one responds to negative emotions in self and others. A negative emotion is not necessarily one that is bad or maladaptive. The term *negative emotion* is used to describe the emotions that are typically unpleasant (e.g., sadness,

anger, and fear). *Positive emotions* are those that are typically pleasant (e.g., happiness). In meta-emotion philosophy, all emotions are described as potentially adaptive. Assessing parental meta-emotion philosophy in response to negative emotions provides a way to understand how parents react during potentially stressful situations based on their own traits, the nature of the situation, and traits of the child (Hakim-Larson, Dunham, Vellet, Murdaca, & Levenbach, 1999). Emotional intelligence is a construct often discussed in meta-emotion theory. Emotional intelligence is often described as one's ability to experience and express emotions conscientiously and in a controlled manner (Jäger & Bartsch, 2006). Jäger and Bartsch (2006) pointed out that there is a need to determine the role of meta-emotion in the self-awareness and self-control of emotions.

### **Parental Meta-Emotion Philosophy**

One of the factors influencing emotion socialization is thought to be one's meta-emotion philosophy. Meta-emotion philosophy represents parents' attitudes toward emotion and their style of communicating emotions with their children (Gottman et al., 1996). Gottman and colleagues (1996) defined parental meta-emotion philosophy as "an organized set of feelings and thoughts about one's own emotions and one's children's emotions" (p. 243). Parental meta-emotion philosophy is an important consideration when examining a parent's verbal and nonverbal emotion socialization practices and behaviours. For example, research findings suggest that maternal meta-emotion philosophy is associated with socialization behaviour when mothers interact with their children ages 4-5 (Gottman et al., 1996). Katz, Gottman, and Hooven (1996) posited that the exploration of parental meta-emotion philosophy can aid in understanding the relation between parenting behaviours and children's physiological regulation and adjustment.

Eisenberg (1996) brought up an important question: how does a parent's meta-emotion philosophy relate to his or her parenting behaviour? Hakim-Larson and colleagues (2006) noted that meta-emotion is a combination of belief about the acceptability of emotions and belief about active emotion socialization. These two dimensions can better explain the construct of meta-emotion. Under the framework of meta-emotion theory, one may recognize how a parent's understanding and awareness of emotions can translate into socialization practices (Hakim-Larson et al., 2006; Katz, Maliken, & Stettler, 2012).

Gottman et al. (1996) also suggested that a parent's emotional awareness and coaching can relate to his or her parenting behaviours, but may also lead directly to child outcome. For instance, Gottman and colleagues (1996) found that children of emotion coaching parents at age five were predicted to be rated as socially competent by teachers at age eight.

Gottman's theoretical model of parental meta-emotion philosophy has produced four emotion-related parenting styles: emotion coaching, laissez-faire, dismissing, and disapproving. These emotion-related parenting styles are related to child outcome, as described in the following sections.

**Emotion coaching parenting.** Emotion coaching is the most positive meta-emotion philosophy in terms of parent-child interaction and child outcomes. Emotion-coaching parents are high in emotional awareness, acceptance, regulation (Gottman & DeClaire, 1997), and coaching (Gottman et al., 1996) of their children's emotions. For emotion coaching parents, emotion is socialized by emotional display, empathic listening, labelling and validating emotions, offering guidance for emotion regulation, and by

teaching problem-solving skills (Gottman & DeClaire, 1997). Characteristically, this parenting style is used by parents who have a healthy relationship with their spouse. These parents also feel comfortable with their own emotions and support their children, through positive parenting, in their exploration and expression of emotions. According to Gottman and his colleagues (1996), outcomes for emotion-coached children are positive in that they experience less stress and illness, have better self-regulation skills, higher levels of academic achievement, and more positive relationships with peers. Children of parents who adopt an emotion-coaching parenting style tend to develop strong emotion regulation and social skills (Gottman & DeClaire, 1997).

**Laissez-faire parenting.** Parents with a laissez-faire meta-emotion philosophy are typically high in emotional awareness and acceptance but low in emotional regulation and coaching of their children's emotions (Gottman & DeClaire, 1997). Compared to emotion coaching parents, little guidance on emotion regulation is used by laissez-faire parents. Laissez-faire parents rarely set limits on behaviour and are unlikely to teach children how to solve socio-emotional problems.

**Emotion dismissing parenting.** Parents who are dismissing of emotion believe that negative emotions are harmful (Gottman et al., 1996). Such parents are low in emotional awareness, acceptance, coaching, and regulation (Gottman & DeClaire, 1997). They would much rather avoid addressing negative emotions at all. Children of emotion dismissing parents may face difficulty in solving socio-emotional problems and may learn that emotions such as sadness, anger, and fear are wrong to experience and express, leading to a difficulty with emotion regulation (Gottman & DeClaire, 1997).

**Emotion disapproving parenting.** This is considered the harshest of the four styles in that criticism and punishment may be used when the child expresses disapproved emotions. Parents using this style are low in emotional awareness, acceptance, regulation, and coaching (Gottman & DeClaire, 1997). It is important to note that a disapproving parenting style can lead to particular difficulties for children. Children may be less emotionally and socially competent (Gottman & DeClaire, 1997) and tend to have elevated anxiety and poor emotion regulation (Lagacé-Séguin & Coplan, 2005).

### **Differentiating Emotion-Related Parenting Styles from Other Parenting Styles**

Gottman and his colleagues (1996) emphasized how emotion-related parenting styles differ from general parenting styles. Baumrind (1971) established four general parenting styles: authoritarian, authoritative, permissive, and uninvolved, which are determined by various combinations of warmth and control. In contrast to the four general parenting styles, emotion-related parenting styles determine how parents set guidelines related to the emotional experiences of the child. Eisenberg (1996) supported the notion that there is, for example, a distinction between parental derogation (related to a general parenting style) and parental expression of anger (related to an emotion-related parenting style). For example, an emotion-coaching parent may inhibit parental negativity in response to a child's negative emotion. This is not the same as an authoritative parenting style which emphasizes a disciplinary style. In essence, an emotion-related parenting style describes a parent's response to a child's emotional experience, while a parent's disciplinary style describes a parent's response to a child's behaviour. Similarly, there is a distinction between parental scaffolding-praising (e.g.,

establish a structured environment and provide praise and approval in response to a child's appropriate actions) and warmth (positivity; Gottman et al., 1996).

### **The Meta-Emotion Interview**

The Meta-Emotion Interview (Katz & Gottman, 1986) is a semi-structured, audio-taped interview that begins by evaluating parents' past and present experience with sadness, anger, and fear. Parents are then asked to describe their children's experience with those emotions. Next, parents look at a list of emotions and discuss an emotion they prefer, an emotion they dislike the most, as well as the emotion with which the child has the most difficulty. Finally, parents verbally summarize what they are trying to teach their children about emotions, in general. This interview often has been used by researchers in the last decade due to its ability to generate rich data on parental meta-emotion philosophy.

In literature on parenting, the Meta-Emotion Interview has been applied in various settings and has been used to assess associations between emotion-related parenting styles and child outcome of social skills and adjustment. For example, the Meta-Emotion Interview was used to evaluate emotion socialization processes and child outcome in African-American families with school-age children (Cunningham, Kliewer, & Garner, 2009). Though maternal meta-emotion philosophy was associated with emotional understanding for boys and girls, some components of emotional understanding differed based on child gender. Emotional understanding was a mediator between maternal emotion socialization and the internalizing behaviour of boys. For girls, emotional understanding was a mediator between maternal emotion socialization and social skills. Additionally, they found that emotion regulation mediated emotion socialization in boys'

adjustment, but not for girls. The Meta-Emotion Interview also has been used to assess the relation between meta-emotion philosophy and child outcome in families with domestic violence (e.g., Katz, Hunter, & Klowden, 2008; Katz & Windecker-Nelson, 2006). One interesting finding from the study by Katz and colleagues (2008) was that emotion coaching in mothers may actually function as a buffer for children exposed to intimate partner violence. Specifically, children of emotion coaching mothers reacted to peer provocation in a more adaptive, less negative manner when compared to children of mothers low in emotion coaching. In another study, the Meta-Emotion Interview was used to evaluate the emotion regulation of children, as well as the emotion socialization of mothers who physically maltreat their children and mothers who do not physically maltreat their children (Shipman, Schneider, Fitzgerald, Sims, Siwsher, & Edwards, 2007). Shipman and colleagues (2007) found that mothers who physically maltreated their children tended to use less emotion coaching when their children displayed negative emotion in a mother-child interaction task as compared to non-maltreating mothers. According to Shipman et al. (2007), mothers who physically maltreated their children may view negative emotion as useless. In turn, children's experience of negative emotions may be invalidated and fewer adaptive emotion regulation strategies may be used by the children.

**Construct validity of the Meta-Emotion Interview.** The Meta-Emotion Interview has been described as the gold-standard measure of the construct of parental meta-emotion philosophy. It is important to describe what exactly is meant by *construct validity* because it is a term frequently misused in the literature. According to Haynes (2001), construct validity “comprises the evidence and rationales indicating the degree to

which data from an assessment instrument measures the targeted construct; includes all evidence bearing on the measure and encompasses all types of validity” (p. 239). In other words, construct validity demonstrates how well variables of interest represent the construct (Cherulnik, 2001). According to Clark and Watson (1995), construct validity is a primary goal when developing scales.

Meta-emotion also has been studied by examining parents’ scores on the Meta-Emotion Interview and peer relations among children with conduct problems (Katz & Windecker-Nelson, 2004). Even for children who are aggressive, more positive play with peers occurred when mothers were higher in emotion awareness and coaching.

Meta-emotion also has been examined in families with older children and adolescents. In one study, the Meta-Emotion Interview was used to examine the relation between maternal meta-emotion philosophy, adolescent affect, and adolescent temperament (Yap, Allen, Leve, & Katz, 2008). Yap et al. (2008) found that maternal meta-emotion philosophy was related to maternal emotion socialization behaviours during mothers’ interactions with their adolescent-aged children. Further, the Meta-Emotion Interview was used in a study of maternal meta-emotion philosophy in the families of adolescents with depressive symptomatology (Katz & Hunter, 2007). The sample contained thirty dyads of adolescents and their mothers. Results suggested that adolescents of mothers who scored high in acceptance of their own emotions were more likely to score lower in depression symptomatology, lower in externalizing problems, but higher in self-esteem. Overall, these findings suggest that the Meta-Emotion Interview has been a useful tool to study parental meta-emotion.

As interest in meta-emotion philosophy was generated, Gottman and DeClaire (1997) wrote a parenting book called *Raising an Emotionally Intelligent Child: The Heart of Parenting* and presented an 81-item true/false self-report measure. By completing this measure – entitled “A Self-Test: What Style of Parent are you?” – parents could assess and determine their primary emotion-related parenting style. This measure was later converted into a long form Likert-type questionnaire known as the Emotion-Related Parenting Styles Self-Test – Likert (ERPSST-L; Gottman & DeClaire, 1997, modified by Hakim-Larson et al., 2006) and also a short form Likert-type questionnaire called Emotion-Related Parenting Styles (ERPS; Gottman & DeClaire, 1997, modified by Paterson, Babb, Camodeca, Goodwin, Hakim-Larson, Voelker, & Gragg, 2012). The construct validity of the long form and the short form has yet to be tested in conjunction with the Meta-Emotion Interview. In summary, meta-emotion philosophy also can be measured in a true/false questionnaire, a long form Likert-type questionnaire, and a short form Likert-type questionnaire. These measures are individually described below.

### **A Self-Test: What Style of Parent are you?**

This is an 81-item true/false self-report measure (Gottman & DeClaire, 1997) that is also referred to as the Emotion-Related Parenting Styles Self-Test – True/False (ERPSST-T/F). Each statement represents one of the four emotion-related parenting styles: emotion coaching, laissez-faire, dismissing, and disapproving. Examples of items on this measure include, “I think it’s good for kids to feel angry sometimes” and “I think sadness is okay as long as it’s under control” (p. 42-48). An average score for each scale is calculated. A parent’s primary emotion-related parenting style is the one that results in the highest average score. Scoring produces a continuous score on each of the emotion-

related parenting styles. All parents have the four emotion-related parenting styles to some extent, but it is a matter of degree. Typically, average Likert-type scores for each subscale are calculated and used in analyses.

Hakim-Larson et al. (2006) tested the psychometric properties of the ERPSST-T/F measure on a sample of 89 mothers and 11 fathers of children ages 2 to 6. Internal consistency was found to be from .33 to .87 over the four parenting styles, with the laissez-faire scale as the weakest. Social desirability was found to relate to variables, and was controlled for in analyses. Test-retest reliability after two to three months was good, suggesting that a parents' primarily endorsed style is somewhat stable over time. Evidence for test-retest reliability and internal consistency reliability were found (Lee, Hakim-Larson, & Voelker, 2000). Hakim-Larson and colleagues (2006) found that the emotion coaching parenting style was endorsed most often (in 91 out of 100 parents from the first administration) and the remaining nine were laissez-faire. Lee (1999) used a confirmatory factor analysis to test the construct validity of the ERPSST-T/F measure. Construct validity would have been supported if four parenting style constructs were represented by the ERPSST-T/F. However, Lee (1999) found the model fit of the ERPSST-T/F to be poor to mediocre. As described by Clark and Watson (1995), dichotomous response formats have been criticized extensively in the literature due to their tendency to be less reliable and less stable than ones with multiple choices. Though the ERPSST-T/F was useful in the sense that it was quick to administer, it required reconstruction due to its poor psychometric properties. This led to the development of the Likert-scale version of the Emotion-Related Parenting Styles Self-Test.

### **Emotion-Related Parenting Styles Self-Test – Likert (ERPSST-L)**

The ERPSST-L (Gottman & DeClaire, 2007, modified by Hakim-Larson et al., 2006, reproduced with permission of Simon & Schuster) was developed by converting the true/false measure (ERPSST-T/F) into a 5-point Likert-type scale (1 = *always false*, 2 = *mostly false*, 3 = *somewhat true/false*, 4 = *mostly true*, and 5 = *always true*). All 81 items from the ERPSST-T/F remained on this scale to measure parents' typical style of teaching their children about emotion. Average Likert-type scores for each subscale are calculated, in which a higher score indicates greater endorsement of that emotion-related parenting style. A parent's primary emotion-related parenting style is the subscale that results in the highest average.

**Psychometric properties of the ERPSST-L.** Psychometric properties of the ERPSST-L were assessed by Hakim-Larson and colleagues (2006) using a community sample of 21 mothers and 10 fathers of children ages 3 to 6. Preliminary findings demonstrated evidence of adequate to very good internal consistency reliability ( $\alpha = .72$  to  $.91$ ), showing improvement over the ERPSST-T/F. After controlling for social desirability and parent gender, Hakim-Larson and colleagues (2006) found support for convergent validity of the ERPSST-L with self-report measures of self-expressiveness (positive dominance, positive submissive, negative dominance, and negative submissive; Halberstadt Cassidy, Stifter, Parke, & Fox, 1995), attitudes toward children's emotional expressiveness (Saarni, 1985), and ability to cope with negative emotions (Fabes, Eisenberg, & Bernzweig, 1990). Partial correlation analyses in the study by Hakim-Larson et al. (2006) produced statistically significant positive correlations between scores on the emotion coaching subscale and positive expressiveness and expressive

encouragement; positive correlations between scores on the laissez-faire subscale and expressive encouragement; positive correlations between scores on the dismissing subscale and the self-reported distress, use of punishment, and emotion-minimization; negative correlation between scores on the dismissing subscale and expressive encouragement; and positive correlations between a disapproving parenting style and distress reactions, punitive reactions, and minimization reactions.

The ERPSST-L has been a useful measure to researchers interested in meta-emotion philosophy. The ERPSST-L was used as a measure in a study published by Mills, Freeman, Clara, Elgar, Walling, and Mak (2007) to examine parents' proneness to shame, use of psychological control, overprotective behaviour, and critical, rejecting behaviour. The sample included 198 mothers and fathers of preschoolers. Mills et al. (2007) used a principal components analysis and produced the expected four components of the ERPSST-L. Because they wanted a measure of parents' negative approach to the child, they only used the disapproval scale for their main analyses. They found that this scale had a significant, positive correlation with measures of spousal overprotection, self-criticism, criticism towards spouse, guilt, shame, worry about danger, worry about discomfort, and anger reactivity.

Similarly, another group of researchers decided to select only the disapproving scale of the ERPSST-L, producing alphas of .88 for mothers and .85 for fathers (Walling, Mills, & Freeman, 2007). In this study of parenting cognitions and parental use of psychological control, Walling et al. (2007) found that for fathers of girls the disapproval of negative emotions predicted a parent's use of guilt/shame induction. This finding did not occur for fathers of boys. In addition, they also found that maternal and paternal

sensitivity to hurtful messages and disapproval of negative emotions were related to an increased use of psychological control (i.e., parental intrusion and manipulation of their children's feelings, thoughts, and perspectives on the parent-child relationship).

In summation, the ERPSST-L can be used in a number of ways to examine specific emotion-related parenting styles. Recently, the ERPSST-L was transformed into a short-form measure called the Emotion-Related Parenting Styles (ERPS). Despite the utility of the ERPSST-L, no study to date has tested the construct validity of the ERPSST-L or the ERPS in conjunction with the original Meta-Emotion Interview.

### **Emotion-Related Parenting Styles (ERPS)**

The ERPS (Gottman & DeClaire, 1997, modified by Paterson et al., 2012) is a 20-item short-form questionnaire. Items on the ERPS are a subset of selected items from the long form ERPSST-L. The ERPS produces scores on four different emotion-related parenting styles: emotion coaching, parental rejection of negative emotion, parental acceptance of negative emotion, and feelings of uncertainty/ineffectiveness in emotion socialization.

The sample used by Paterson et al. (2012) consisted of 107 mothers of children without a developmental disability and 107 mothers of children with a developmental disability who completed the ERPSST-L. Psychometric properties of this short-form measure were satisfactory in both samples, with Cronbach's alphas ranging from .70 to .80. The authors found support for convergent validity in that the ERPS subscales correlated in the expected directions with subscales of the Coping with Children's Negative Emotions Scale (CCNES) and subscales of the Parent Attitude toward Children's Expressiveness Scale (PACES). The relation between scales on the ERPSST-

L and ERPS, as found by Paterson and colleagues (2012) are found in Table 1. The ERPS was later revised to include gender-neutral language, removing any pronouns from the questionnaire. A description of each of the four ERPS subscales follows.

**Emotion coaching.** Like the emotion coaching subscale from the ERPSST-L, the emotion coaching subscale of the ERPS is used to assess a parent's acceptance of his or her child's emotional expression and desire to teach the child about emotions (e.g., "When my child is sad, I try to help the child explore what is making him or her sad"). Paterson et al. (2012) found a positive correlation between the emotion coaching subscale and that of the ERPSST-L,  $r = .75, p < .001$ . Thus, descriptors of emotion coaching appear to remain quite consistent with the emotion coaching subscale of the ERPSST-L.

**Parental rejection of negative emotion.** This scale measures the degree to which parents reject their children's experience of negative emotions (e.g., "When my child gets angry, my goal is to get him or her to stop"). Paterson et al. (2012) found evidence for collapsing the dismissing and disapproving styles to produce the parental rejection subscale. They found that this subscale correlated with the dismissing ( $r = .68, p < .001$ ) and disapproving ( $r = .71, p < .001$ ) subscales of the ERPSST-L.

**Parental acceptance of negative emotion.** Parents who endorse items on this scale tend to accept negative emotions but provide little guidance in helping the child work through those emotions (e.g., "I think it's good for kids to feel angry sometimes"). Paterson et al. (2012) reported that parental acceptance positively correlated with the ERPSST-L's emotion coaching ( $r = .67, p < .001$ ) and laissez-faire ( $r = .32, p < .001$ ) subscales, and negatively correlated with dismissing ( $r = -.27, p < .001$ ) and disapproving ( $r = -.31, p < .001$ ) parenting styles.

Table 1

*Correlations between the Emotion-Related Parenting Styles Self-Test – Likert (ERPSST-L) and the Emotion-Related Parenting Styles (ERPS) adapted from Paterson et al. (2012)*

		ERPS Subscales			
		Emotion Coaching	Parental Acceptance	Parental Rejection	Uncertainty/Ineffectiveness
ERPSST-L	Emotion Coaching	.75***	.67***	-.10	-.24***
Subscales	Laissez-Faire	.06	.32***	-.01	.38***
	Dismissing	-.18*	-.27***	.68***	.47***
	Disapproving	-.18**	-.31***	.71***	.45***

*Note.* Permission to reproduce these coefficients was granted by S. Denham, editor of Early Education and Development (personal communication, September 13, 2012).

Permission to reproduce nonsignificant coefficients from the original data set was granted by A. Paterson (personal communication, September 14, 2012). \* $p < .05$ , \*\* $p \leq .01$ ,

\*\*\* $p \leq .001$ .

**Feelings of uncertainty/ineffectiveness in emotion socialization.** This subscale is unique to the ERPS in that parents who endorse this subscale typically feel uncertain or ineffective with regards to handling their child's experience of negative emotions (e.g., "When my child is angry, I'm not quite sure what he or she wants me to do"). This uncertainty/ineffectiveness subscale negatively correlated with the ERPSST-L's emotion coaching subscale ( $r = -.24, p = .001$ ), but positively correlated with the laissez-faire ( $r = .38, p < .001$ ), dismissing ( $r = .47, p < .001$ ), and disapproving ( $r = .45, p < .001$ ) subscales (Paterson et al., 2012).

Aside from Paterson et al. (2012), there has been one other attempt to adapt the true/false self-test (ERPSST-T/F) into a psychometrically-sound short-form measure. Lagacé-Séguin and Coplan (2005) produced a 22-item, 5-point Likert-type self-report measure called the Maternal Emotional Styles Questionnaire (MESQ). Parents rated their level of agreement on statements on a scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*). This measure was found to be internally consistent, correlated with the Meta-Emotion Interview, and established convergent validity with parental goals that are parent-centred and empathetic (Lagacé-Séguin & Coplan, 2005). Their measure produced a two-factor structure to assess emotion-coaching and emotion-dismissing philosophies. There are two known published studies that included the MESQ as a measure. In the first, Lagacé-Séguin and Gionet (2009) found that parental meta-emotion, as assessed by the MESQ, and temperament were predictors of coping skills for adolescents aged 10-13 years. In a second study that used the MESQ, Baker, Fenning, and Crnic (2010) examined relations among various parental emotion socialization behaviours, including reactions to children's negative emotions in a sample of parents (88

mothers and 76 fathers) of 8-year-old children. They found that paternal emotion coaching attitudes, which were associated with the social competence of the children, predicted their reactions to child emotion, emotional expression in the family, and use of an emotion-coaching approach. The 20-item ERPS differs from the 22-item MESQ in several ways. First of all, the ERPS assesses four theoretical meta-emotion philosophies, while the MESQ assesses only emotion-coaching and emotion-dismissing philosophies. Additionally, the development of the ERPS began with a smaller pool of items (81) than the MESQ (over 100).

### **Testing the Construct Validity of the Long Form (ERPSST-L) and Short Form (ERPS)**

The purpose of the present study was to test the construct validity of both the ERPSST-L (long form) and the ERPS (short form) in conjunction with the original Meta-Emotion Interview. Though the ERPSST-L and ERPS scales may be useful to researchers, there is a need to determine if scores on these scales correlate with scores on the Meta-Emotion Interview in the expected directions. In order to test the construct validity of the long form questionnaire, scores on the ERPSST-L were compared to dimension scores of the Meta-Emotion Interview. The Meta-Emotion Interview dimensions include parents' awareness, acceptance, and regulation of their own emotions, as well as the parents' awareness, acceptance, coaching, and regulation of their children's emotions. Meta-emotion theory was used in formulating hypotheses regarding the anticipated direction of correlation. Finding these predicted relationships would show that construct validity has been established (Crano & Brewer, 2002), and the ERPSST-L would be considered a valid measure of meta-emotion. For hypothetical constructs, like

parental meta-emotion philosophy, it is optimal to examine whether scores on the new measure conform theoretically to the target construct (Smith, 2005).

The next aim of the present study was to evaluate the construct validity of the short form ERPS by comparing subscale scores to the dimension scores of the Meta-Emotion Interview. If scores correlate in the expected direction, it would provide support for the construct validity of the ERPS as a short-form measure of parental meta-emotion.

### **Study Rationale**

A summary of all measures used in the present study and their subscales is displayed in Figure 1. Hakim-Larson and colleagues (2006) sought to develop and evaluate the ERPSST-L because “such self-report measures take less time and fewer resources to administer and score than lengthy, structured interviews, and could potentially facilitate relevant research on parenting meta-emotion” (p. 231). Hakim-Larson et al. (2006) also stated “future studies on the ERPSST-L will need to include a comparison of parents’ scores on the four self-report scales to the scores obtained from the coding of the meta-emotion interview as originally developed by Gottman and his colleagues” (p. 248). The objective of the present study is to meet this very need.

There is a need for a time-efficient, valid measure of meta-emotion, as the Meta-Emotion Interview can take up to 135 minutes to complete. Audio-recorded, semi-structured interviews are also susceptible to data loss due to technical difficulties and insufficient prompting by interviewers, as was the case in a study that used the Meta-Emotion Interview (DeOliveira, Moran, & Pederson, 2005). In addition to these problems, data analysis can be time and cost prohibitive. As found in the present study, transcribing one Meta-Emotion Interview can take anywhere from five to twelve hours.

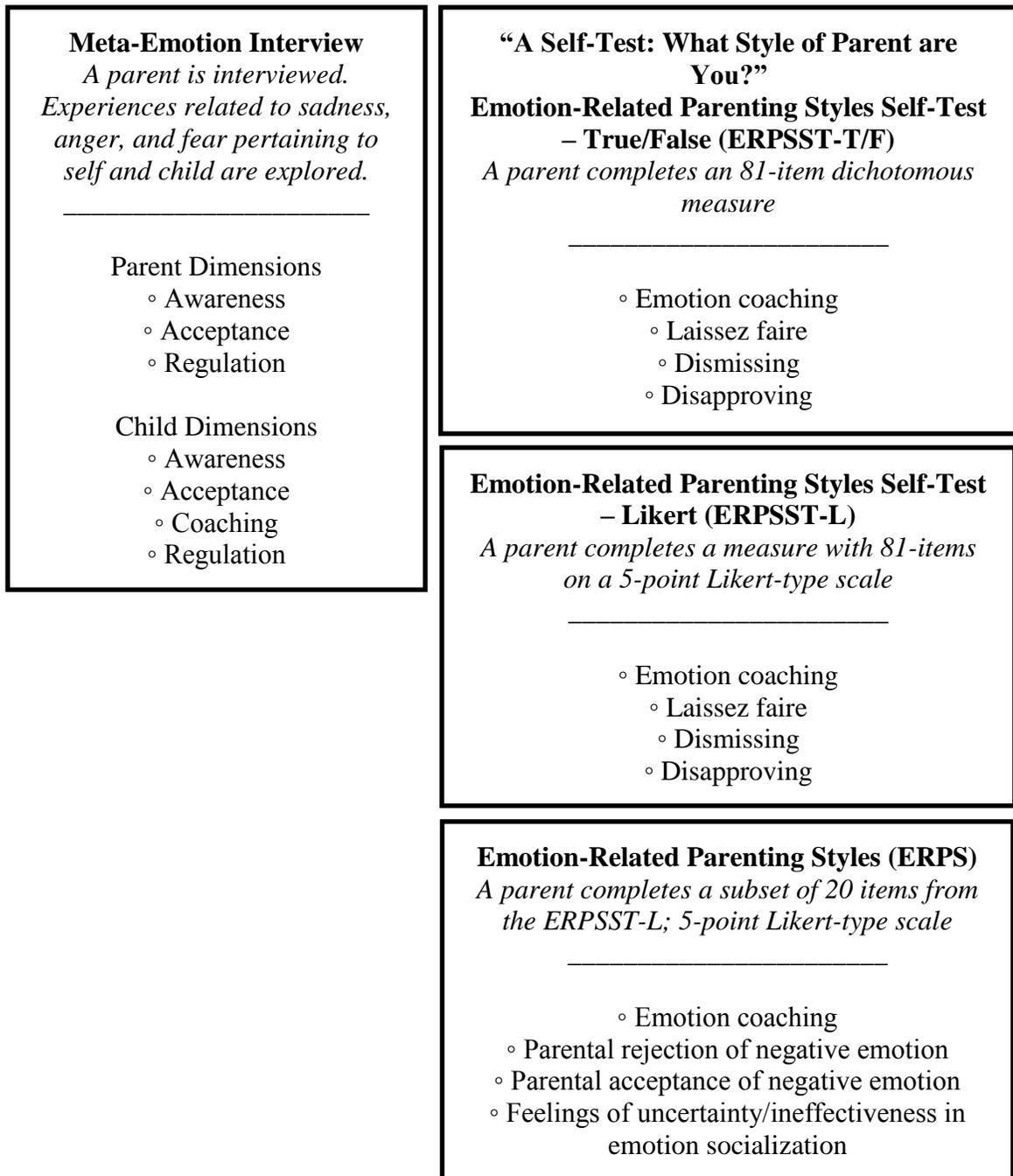


Figure 1. A depiction of the main variables relevant to the current study.

Further, Meta-Emotion Interview coders are required to complete extensive training, which involves the use of manuals and audio tapes for approximately 20 hours (Cunningham et al., 2009). Once practice tapes are completed and adequate inter-rater reliability has been established, the Meta-Emotion Interviews need to be coded; this can also be a lengthy process. Cunningham and colleagues (2009) reported that each interview took 45 to 60 minutes to code. By using a validated paper-pencil questionnaire, meta-emotion researchers will save time and resources. Validating self-report measures addresses an unmet need in the study of meta-emotion philosophy.

If the ERPSST-L and ERPS are found to have good construct validity, they may be useful in addressing parental strengths related to emotion socialization practices. Because these are quick self-report measures, they may also be useful in pre and post-test for interventions in family therapy and in promoting positive parenting.

## **Hypotheses**

**Hypotheses related to group differences: Child gender.** In a study by Cunningham and colleagues (2009), the maternal emotion socialization process did not differ for mothers of boys and mothers of girls in an African American sample. However, they found that emotion socialization practices related to emotion regulation for boys but not for girls. Thus, in the present study it was expected that main study variables would differ significantly for mothers of boys and mothers of girls.

**Hypotheses related to the construct validity of the ERPSST-L long form.** This hypothesis pertains to the expected direction of correlations between the four Meta-Emotion Interview child dimension scores (parent's awareness of child's emotions,

acceptance of child's emotions, parent coaching of child's emotions, and parent's account of child's regulation of emotion) and the four ERPSST-L subscale scores (emotion coaching, laissez-faire, dismissing, and disapproving). Each parent receives a score on each of these variables, with a higher score indicating greater endorsement. On specific construct validity analyses, the focus was on the Meta-Emotion Interview child dimensions, as opposed to the Meta-Emotion Interview parent dimensions, because ERPSST-L focused on parenting behaviours when it comes to children's emotions, not specifically on the parent's own management of his or her emotions. Due to the specificity of the expected direction of correlations, Table 2 displays a summary of the major hypotheses for this study regarding the relation between the Meta-Emotion Interview and the ERPSST-L. These hypotheses are all based on meta-emotion theory because Meta-Emotion Interview scores do not directly produce emotion-related parenting styles, like the ERPSST-L does. Gottman, Katz, and Hooven (1997) stated that the Meta-Emotion Interview can be assessed qualitatively to determine a parent's meta-emotion philosophy by examining content for statements that describe the categories of emotion-related parenting styles. As pointed out by Shine and Wampler (1997), this qualitative classification of parenting styles from the Meta-Emotion Interview dimensions has never been explained in the literature and specific procedures are not available. Instead of classifying emotion-related parenting styles within the Meta-Emotion Interview, the relation between Meta-Emotion Interview dimensions and emotion-related parenting style scores were hypothesized using meta-emotion theory.

Table 2

*Hypothesized Relations between the Emotion-Related Parenting Styles Self-Test – Likert (ERPSST-L) and the Meta-Emotion Interview*

		ERPSST-L Subscales			
		Emotion Coaching	Laissez-Faire	Dismissing	Disapproving
Meta-Emotion Interview Dimensions	Awareness of Child's Emotions	Positive Correlation (Gottman & DeClaire, 1997, p. 63; Hakim-Larson et al., 2006, p. 230)	Positive Correlation (Hakim-Larson et al., 2006, p. 230)	Negative Correlation (Gottman & DeClaire, 1997, p. 50; Hakim-Larson et al., 2006, p. 231)	Negative Correlation (Hakim-Larson et al., 2006, p. 231)
	Acceptance of Child's Emotions	Positive Correlation (Gottman & DeClaire, 1997, p. 63; Hakim-Larson et al., 2006, p. 230)	Positive Correlation (Hakim-Larson et al., 2006, p. 230)	Negative Correlation (Gottman & DeClaire, 1997, p. 50)	Negative Correlation (Gottman & DeClaire, 1997, 1997, p. 51)
	Account of Child's Regulation of Emotions	Positive Correlation (Gottman & DeClaire, 1997, p. 52; Hakim-Larson et al., 2006, p. 230)	Negative Correlation (Hakim-Larson et al., 2006, p. 230)	Negative Correlation (Gottman & DeClaire, 1997, p. 56)	Negative Correlation (Gottman & DeClaire, 1997, p. 51)
	Coaching of Child's Emotions	Positive Correlation (Gottman et al., 1996, p. 244)	Negative Correlation (Gottman & DeClaire, 1997, p. 50)	Negative Correlation (Gottman & DeClaire, 1997, p. 50)	Negative Correlation (Gottman & DeClaire, 1997, p. 51)

**Hypotheses related to the construct validity of the ERPS short form.** It was expected that the ERPS would establish construct validity in conjunction with the original Meta-Emotion Interview by correlating in directions predicted by meta-emotion theory (refer to Table 3). Consistent with the hypothesized findings for the ERPSST-L long form, it was expected that the emotion coaching subscale of the ERPS would show a positive correlation with the Meta-Emotion Interview child dimensions just as was expected for the emotion coaching dimension of the ERPSST-L. Second, it was expected that the parental rejection of negative emotion subscale would show a negative correlation with each of the Meta-Emotion Interview dimensions. Third, because parental acceptance of negative emotion was found to correlate highly with the ERPSST-L's emotion coaching subscale (Paterson et al., 2012), it was expected that parental acceptance would show a positive correlation with the Meta-Emotion Interview child dimensions, just as the emotion coaching subscale did. Further, acceptance of emotion is a large component of emotion coaching. Finally, it was expected that the feelings of uncertainty/ineffectiveness in emotion socialization subscale would negatively correlate with child dimensions of the Meta-Emotion Interview. The rationale for this hypothesis is that parents high in uncertainty/ineffectiveness may feel incompetent with regards to emotion socialization and may, therefore, avoid or struggle with being involved in experiences related to the emotional awareness, acceptance, coaching, and regulation of their children.

**Overview of hypotheses.** As a general hypothesis, it was expected that the ERPSST-L and ERPS would demonstrate construct validity by correlating in the expected directions with the Meta-Emotion Interview subscales. This was expected

Table 3

*Hypothesized Relations between the Emotion-Related Parenting Styles (ERPS) and the Meta-Emotion Interview*

		ERPS Subscales			
		Emotion Coaching	Parental Acceptance	Parental Rejection	Uncertainty/ Ineffectiveness
Meta- Emotion Interview Dimensions	Awareness of Child's Emotions	Positive Correlation	Positive Correlation	Negative Correlation	Negative Correlation
	Acceptance of Child's Emotions	Positive Correlation	Positive Correlation	Negative Correlation	Negative Correlation
	Account of Child's Regulation of Emotions	Positive Correlation	Positive Correlation	Negative Correlation	Negative Correlation
	Coaching of Child's Emotions	Positive Correlation	Positive Correlation	Negative Correlation	Negative Correlation

because meta-emotion theory is used to code the Meta-Emotion Interview, and the ERPSST-L and ERPS specify emotion-related parenting styles encompassed in meta-emotion theory. In having a small sample size, it is possible for there to be nonsignificant correlations between some variables. This is likely to happen on scales that have low internal consistency.

It has been found that mothers and fathers differ in parenting practices and emotional expression (e.g., Katz, Gottman, & Hooven, 1996). Hakim-Larson et al. (2006) found that mothers were more likely to report higher self-expressiveness and expressive encouragement than fathers. Fathers were significantly more likely to adopt a dismissing parenting style. Additionally, Gottman et al. (1996) found that mothers reported greater emotional awareness and coaching than fathers. Due to having a small sample size in the present study, the focus on the present study was on maternal meta-emotion philosophy.

## CHAPTER III

### METHOD

#### **Participants**

Archival data collected from the fall of 2000 to the fall of 2002 were used for the present study (Hakim-Larson, 2000; Fostering emotional competence in preschool children, University of Windsor internal research grant). Participants were recruited from the Psychology Department participant pool (i.e., a group of undergraduate students who may elect to be research participants in studies approved by a Research Ethics Board) at a mid-size university in southwestern Ontario. Spouse pairs were excluded from the present study, as well as participants with an inaudible Meta-Emotion Interview. The final sample included 36 parents (33 mothers, 3 fathers). Mothers ( $M_{\text{age}} = 30.97$  years,  $SD = 5.83$ ) were used in all analyses but fathers were only incorporated as additional analyses in order to inform considerations for future studies. All mothers had a child who was between ages 3 and 5 years old ( $M_{\text{age}} = 3.91$  years,  $SD = .84$ ). In the event that a parent had more than one child within this age range, the parent was asked to report on the oldest child that fit into the study design. Complete information on participant demographics is in Table 4.

#### **Procedure**

Parents first completed a consent form and were asked to bring home a package containing a background information form, two counterbalanced measures, and items for a storytelling task not used in the present study. The two counterbalanced measures included the Emotion-Related Parenting Styles Self-Test – Likert (ERPSST-L; Gottman & DeClaire, 1997, modified by Hakim-Larson et al., 2006) and a questionnaire on

Table 4

*Participant Demographics*

Feature	Description	Mothers ( <i>n</i> = 33)	Fathers ( <i>n</i> = 3)
		Frequency (% of total)	Frequency (% of total)
Age of Parent		$M_{\text{age}} = 30.97$ years $SD = 5.83$ $\text{Min}_{\text{age}} = 21$ $\text{Max}_{\text{age}} = 45$	$M_{\text{age}} = 33.67$ years $SD = 6.81$ $\text{Min}_{\text{age}} = 26$ $\text{Max}_{\text{age}} = 39$
Marital Status	Common-Law	5 (15.2%)	1 (33.3%)
	Married	17 (51.5%)	2 (66.7%)
	Separated/Divorced/Widowed	3 (9.1%)	0 (0%)
	Single, never married	8 (24.2%)	0 (0%)
Ethnicity	Caucasian	25 (75.8%)	3 (100%)
	Middle Eastern	1 (3%)	0 (0%)
	Native/Aboriginal	2 (6.1%)	0 (0%)
	Other	2 (6.1%)	0 (0%)
	No response	3 (9.1%)	0 (0%)
Annual Family Income	Less than \$10,000	1 (3.0%)	0 (0%)
	\$11,000 to 20,000	9 (27.3%)	0 (0%)
	\$21,000 to 30,000	2 (6.1%)	1 (33.3%)
	\$31,000 to 40,000	0 (0%)	0 (0%)
	\$41,000 to 50,000	3 (9.1%)	0 (0%)
	\$51,000 to 60,000	2 (6.1%)	0 (0%)
	\$61,000 to 70,000	2 (6.1%)	0 (0%)
	Greater than \$70,000	12 (36.4%)	2 (66.7%)
	No response	2 (6.1%)	0 (0%)
Employment Status	Currently employed	18 (54.5%)	3 (100%)
	Not currently employed	15 (45.5%)	0 (0%)
Birthplace	Canada	30 (90.9%)	3 (100%)
	Outside Canada	3 (9.1%)	0 (0%)
Highest level of education	Some college/university or less	13 (39.4%)	2 (66.7%)
	College/university graduate or more	20 (60.6%)	1 (33.3%)
Use of counselling services for self	Yes	8 (24.2%)	1 (33.3%)
	No	25 (75.8%)	1 (66.7%)
Age of Target Child	3 years	13 (39.4%)	0 (0%)
	4 years	10 (30.3%)	2 (66.7%)
	5 years	10 (30.3%)	1 (33.3%)
Sex of Target Child	Female	16 (48.5%)	2 (33.3%)
	Male	17 (51.5%)	1 (66.7%)

reasons for reading that was not used in the present study. Parents returned the materials to the researchers or a researcher picked up the materials from the family's home.

Next, participants were invited back to the university to complete the Meta-Emotion Interview (Katz & Gottman, 1986). Interviewers included five members of the University of Windsor's Emotional Competence Research Group who were trained in administering the Meta-Emotion Interview. The duration of this interview varied from one to two hours, and participants were offered \$10 in compensation for participating in the entire study. Those parents who were students at the university received bonus points for an eligible undergraduate course. Finally, parents received a debriefing form.

## **Measures**

This section begins with a description of the Meta-Emotion Interview, the long form, and the short form measures used in the present study. Scoring procedures and the psychometric properties from past studies are discussed for each measure. The inter-rater reliability, mean scores and standard deviations, and internal consistency reliability for all measures are described.

**Meta-Emotion Interview** (Katz & Gottman, 1986). This is a semi-structured interview completed by a parent. There are seven dimensions of meta-emotion evaluated by the interview. The first three dimensions pertain to the parent: awareness of emotions, acceptance of emotions, and regulation of emotions. The remaining four dimensions pertain to the child: parent's awareness of child's emotions, parent's acceptance of child's emotions, parent's coaching of child's emotions, and parent's account of child's emotional regulation. All seven dimensions are further described below. Table 5 contains the range of possible scores for Meta-Emotion Interview dimensions.

Table 5

*Scoring of Meta-Emotion Interview Dimensions*

Name of Dimension	Number of Items Per Emotion	Range of Possible Scores Per Emotion	Range of Possible Combined Scores (Sadness and Anger)
Awareness of child's emotions	9	9 to 36	18 to 72
Acceptance of child's emotions	13	13 to 65	26 to 130
Coaching of child's emotions	11	11 to 55	22 to 110
Regulation of child's emotions	9	9 to 45	18 to 90

*Note.* Most dimension items are scored on a scale from 1 to 5 (1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, 5 = *strongly agree*, and DK = *don't know*). Some items could only be rated on a scale from 1 to 4, while others could be rated on a scale from 1 to 5.

*Dimensions of the Meta-Emotion Interview that pertain to the parent.* Three of the seven dimensions of the Meta-Emotion Interview pertain to the parent. They are parental awareness, acceptance, and regulation of his or her own emotions.

*Parent's awareness of his/her own emotions.* There are 12 items on this dimension to examine the degree to which a parent is aware of his or her own emotional processes (e.g., "Parent is descriptive of their experience of this emotion"). This is an important dimension in that Gottman and colleagues (1996) stated, "we found that only people who are aware of emotion and can differentially talk about the nuances of emotion and emotion intensity find emotional expression to be acceptable" (p. 267). Those who are high in this dimension consciously experience emotions, while those who are low in this dimension might prefer to avoid noticing negative emotions. Such parents might see the "passage of time" as a means of resolving issues of sadness or anger (p. 267).

*Parent's acceptance of his/her own emotions.* This dimension assesses a parent's attitudes toward emotion regarding their own level of comfort accepting emotions. There are 17 items on this dimension (e.g., "Parent feels comfortable with their expression of this emotion").

*Parent's regulation of his/her own emotion.* This dimension evaluates a parent's ability to control negative emotions. This can be indicated by a parent's use of remediation techniques. There are 12 items on this dimension. (e.g., "This emotion is difficult to get over"). Difficulty in emotion regulation has been associated with physical and mental health problems and difficulties with marital relations (Gottman, Katz, & Hooven, 1997).

*Parent's responses to child's emotions.* There are four dimensions of the Meta-Emotion Interview that pertain to the child. They are parent's awareness, acceptance, and coaching of the child's emotions, and parent's perception of the child's ability to regulate emotions.

*Parent's awareness of child's emotions.* There are 9 items on this dimension (e.g., "Parent knows cause of child's emotion"). This dimension evaluates a parent's ability to observe and decode the emotions of the child.

*Acceptance of child's emotions.* This dimension contains 13 items (e.g., "Parent wants child to know it's OK to have this feeling"). It measures a parent's responses (both direct and indirect) to his/her child's emotional expression. For instance, responses can be physically soothing, verbal, or even analytical.

*Parent coaching of child's emotions.* This dimension contains 11 items that tap into a parent's ability to show respect for and comfort the child during emotional experiences, as well as teach age-appropriate strategies for the child to soothe his or her own emotion (e.g., "When child is upset, parent talks about situation, emotion"). Additionally, these parents aim to teach their children about the world of emotions. The ability to soothe oneself physiologically is crucial in one's ability to develop empathy (Gottman et al., 1996).

*Parent's account of child's regulation of emotion.* From this dimension, a researcher can evaluate a parent's ability to recognize his or her child's ability to get over the emotion. To score high on this dimension, a parent may recognize that his or her child can self-regulate the emotion and/or identify remediation strategies that are

effective for the child. There are 9 items on this dimension (e.g., “This emotion is difficult for the child to get over”).

***Psychometric properties of the Meta-Emotion Interview.*** Convergent validity of the Meta-Emotion Interview has been found to be adequate. For example, emotion coaching parents are more likely to use scaffolding and praising but less derogation than parents of other styles (Gottman, Katz, & Hooven, 1997). Internal consistency, as measured by Cronbach’s alpha, has been found to be moderate (Katz & Windecker-Nelson, 2004). Katz and Windecker-Nelson (2004) found the inter-rater reliability to range from  $r = .57$  to  $r = .82$  among dimensions, while Cunningham and colleagues (2009) obtained an overall inter-rater reliability of  $r = .72$ .

***Transcription of the Meta-Emotion Interviews.*** Interviews were transcribed verbatim into Microsoft Word, as accurately as possible, by a team of research assistants. With the exception of one study (Cunningham et al., 2009), the transcribing of the Meta-Emotion Interview prior to coding has rarely been reported in the literature. Typically, other researchers only use the audio-recording of the interview when coding (e.g., Katz et al., 2008). Transcription was beneficial because the transcripts included line numbers that were used to document where codes occurred. Line numbers were useful in resolving coding discrepancies. When interviews were transcribed in the present study, no personal information (e.g., real names or identifying information about the participants) were included in the transcript. To confidentially document the dialogue between the interviewer and the interviewee, general descriptions were used instead of names [e.g., “(name of son’s teacher)”].

***Coding of the Meta-Emotion Interviews.*** After receiving ethics clearance to use archival data, the author completed the Meta-Emotion Coding System Coding Training by Katz, Mittman, and Embry (n.d.). The Meta-Emotion Coding System Coding Training Manual (Katz, Mittman, & Embry, n.d.) was used to assist in making coding decisions, and coding sheets were used to record scores. The coding system contains a booklet of the items of all of the Meta-Emotion Interview dimensions, descriptions of these dimensions, and possible codes for each item. Coding training involved listening to and coding sample Meta-Emotion Interviews that were audio-recorded on cassettes. Interview transcripts were unavailable for coding training. The duration of training was approximately 20 hours, which is consistent in the literature (e.g., Cunningham et al., 2009).

When coding the interviews from the present study, the coder first listened to the audio-taped interview in order to code items related to the parent's tone of voice (e.g., in terms of interest in the questions being asked, hesitation, and uncertainty). Next, the coder coded each interview by listening to the tape and following along with the transcript. The Meta-Emotion Interview was scored on sadness, anger, and the combination scores of sadness and anger. Interview questions related to fear were excluded because the ERPSST-L only contains items related to sadness and anger.

During coding of the Meta-Emotion Interviews, it is possible that a code may not be applicable on an item (e.g., if the interviewer never asks the corresponding question). In this case, a DK (*don't know*) code would be provided. It is important to note that for the Meta-Emotion Interview, scoring instructions require that "don't know" (DK) responses are given the average score for the dimension, and the total score is adjusted.

For example, if the total score for Awareness of Child's Emotions is 22 but the parent responded with DK for 2 of the 9 items, the score is calculated as follows:  $22 + (22/7)(2) = 28.28$ . It is important to note that even though dimensions may have the same number of items it is possible for the range of scores to differ due to the computation of DK responses. For example, the awareness of child's emotions dimension has 9 items but the scale only ranges from 1 to 4, making the maximum score 36. In contrast, the regulation of child's emotions dimension has 9 items but the scale can range from 1 to 5, making the maximum score 45.

The coder was blind to information about the parents, their children, and their scores on other measures. However, the coder was aware of participant gender based on the context of the interview and the audio recorded voices of the participants.

***Inter-rater reliability for the Meta-Emotion Interview.*** In both the coding training and in the coding of the Meta-Emotion Interviews from the present study, inter-rater reliability was calculated. Gottman and colleagues (1996) and a research assistant in Katz's lab (A. Maliken, personal communication, July 11, 2012) recommended using Pearson's correlations to calculate inter-rater reliability. However, the Intraclass Correlation Coefficient has an advantage over Pearson's correlations in that it accounts for both rating differences and the correlation between raters (McGraw & Wong, 1996). A two-way random Intraclass Correlation Coefficient was selected (i.e., both rater effects and item effects are random) in order to compare ratings between the primary researcher and each of the other raters on each dimension score. An Intraclass Correlation Coefficient ranges from 0.00 to 1.00, and an Intraclass Correlation Coefficient of .70 or higher is considered to be adequate.

*Inter-rater reliability: Meta-Emotion Interview coding training.* The primary researcher coded fifteen Meta-Emotion Interviews from the Coding Training System (Katz, Mittman, & Embry, n.d.). To calculate inter-rater reliability for the coding training, dimension scores computed by the primary coder were first compared to scores in the training manual (Katz, Mittman, & Embry, n.d.). The primary coder's scores also were compared to training scores computed by two independent coders who were trained in the same procedure. The first author of the Coding Training System stated that reliability tapes should be completed until coders are confident they understand the dimensions being coded (L. F. Katz, personal communication, June 13, 2011). Results of Intraclass Correlation Coefficients for training interviews (Appendix A) indicate that the inter-rater reliability between the primary researcher and the developers of the Meta-Emotion Interview was .90 on average, ranging from .68 to .97. Between the primary coder and these two other independent coders, the Intraclass Correlation Coefficient on the training interviews was .71 on average, ranging from .34 to .97.

*Inter-rater reliability: Meta-Emotion Interview coding of data from the present study.* With an adequate inter-rater reliability established in coding training (i.e., Intraclass Correlation Coefficient exceeding the .70 minimum on the training data), the coding of the Meta-Emotion Interviews from the present study began. Interviews with mothers ( $n = 33$ ) and fathers ( $n = 3$ ) were coded. To calculate inter-rater reliability for the present study, scores computed by the primary coder were compared to scores computed previously by two other trained, independent raters. In the present study, there were five batches of seven to eight randomly-ordered interviews, and two interviews from each batch were tested for inter-rater reliability. Inter-rater reliability, calculated on

30.30% of the sample, was found to be reliable (average  $r = .80$ , with a range of .13 to 1.0). The poor inter-rater reliability of .13 was on the dimension for parent awareness of sadness. Refer to Appendix B for complete findings regarding inter-rater reliability analyses for study data.

In the case of a discrepancy between two coders' dimension scores, item codes were compared in order to reach a final decision. For subsequent analyses, dimension scores from the primary coder were used, as per a recommendation from a research assistant from Dr. Katz's lab (A. Maliken, personal communication, July 11, 2012). Also, the primary coder in the present study had the highest inter-rater reliability with the Gottman lab.

***Means and standard deviations for the Meta-Emotion Interview.*** Findings from the present study are reported in Table 6. In order to allow for the recognition of distinctive profiles, DeOliveira and colleagues (2005) recommended examining parent dimensions and child dimensions separately; additionally, they recommended that the dimensions be examined differentially by emotion type. Thus, in the present study the child and parent dimensions were analyzed separately. Emotions of sadness and anger were examined separately; they also were examined together, referred to as "combined," in order to stay consistent with the literature. The means and standard deviations of the Meta-Emotion Interview dimensions were not available from other research publications because summary scores have often been used. These summary scores represent aggregate variables, combining parent dimension scores with their corresponding child dimension scores (e.g., an overall awareness score is created by adding scores on parents' awareness of their own emotions with parent' awareness of their children's emotions).

Table 6

*Means and Standard Deviations for Dimensions on the Meta-Emotion Interview*

Name of Measure	Subscale Mean ( <i>SD</i> )
Parent Awareness	
Sadness	44.15 (3.86)
Anger	44.92 (2.86)
Combined	89.07 (5.93)
Parent Acceptance	
Sadness	59.92 (5.88)
Anger	57.24 (6.40)
Combined	117.16 (9.49)
Parent Regulation	
Sadness	42.05 (4.07)
Anger	40.92 (5.75)
Combined	82.97 (7.78)
Child Awareness	
Sadness	34.51 (1.75)
Anger	34.19 (2.15)
Combined	68.70 (3.44)
Child Acceptance	
Sadness	46.81 (3.83)
Anger	41.63 (5.49)
Combined	88.44 (8.08)
Child Regulation	
Sadness	32.79 (3.82)
Anger	27.68 (5.08)
Combined	60.47 (7.72)
Child Coaching	
Sadness	42.34 (2.39)
Anger	38.03 (4.60)
Combined	80.37 (6.07)

*Note.* “Combined” refers to the summed scores of sadness and anger for that dimension.

Thus, dimension scores in the present study could not be compared to dimension scores from other research findings.

**Emotion-Related Parenting Styles Self-Test – Likert (ERPSST-L;** Gottman & DeClaire, 1997, modified by Hakim-Larson et al., 2006). This measure contains 81 items related to parental meta-emotion about sadness and anger, measured on a 5-point Likert-type scale (1 = *always false*, 2 = *mostly false*, 3 = *somewhat true/false*, 4 = *mostly true*, and 5 = *always true*).

Each statement on the ERPSST-L represents one of four parenting styles: emotion coaching (23 items), laissez-faire (10 items), dismissing (25 items), and disapproving (23 items), and higher scores represent greater endorsement of that parenting style. Table 7 depicts the range of possible scores for the ERPSST-L.

***Means, standard deviations, and internal consistency reliability for the ERPSST-L.*** Means, standard deviations, and internal consistency reliability also were calculated for the ERPSST-L (refer to Table 8). Each mother's average Likert-type score for each subscale was used in later analyses. To calculate an average Likert-type score, the item responses for each individual scale were summed and then divided by the number of items for that scale.

In a study by Hakim-Larson et al., (2006), 91/100 parents were classified as having a predominant style of emotion coaching using the ERPSST-T/F version in their analysis. The scale with the highest average score for each participant was designated their primary emotion-related parenting style. Based on this method of classification, 81.8% ( $n = 27$ ) of the mothers in the current study sample using the ERPSST-L were classified as predominately emotion coaching, 15.2% ( $n = 5$ ) were classified as

Table 7

*Scoring of Subscales from the Emotion-Related Parenting Styles Self-Test – Likert (ERPSST-L)*

Name of Subscale	Number of Items	Range of Possible Raw Scores	Range of Possible Scores Per Item
Emotion Coaching	23	23 to 115	1 to 5
Laissez-Faire	10	10 to 50	1 to 5
Dismissing	25	25 to 125	1 to 5
Disapproving	23	23 to 115	1 to 5

*Note.* On the ERPSST-L, parents rated their level of agreement on a scale ranging from 1 (*always false*), 2 (*mostly false*), 3 (*somewhat true/false*), 4 (*mostly true*), and 5 (*always true*).

Table 8

*Means, Standard Deviations, and Cronbach's Alpha Coefficients for the Emotion-Related Parenting Styles Self-Test – Likert (ERPSST-L)*

Name of ERPSST- L Subscale	Number of Items	Average Likert- type score	Subscale Mean ( <i>SD</i> )	Alpha Coefficient
Emotion coaching	23	3.83	88.08 (10.91)	.89
Laissez-faire	10	3.36	33.64 (3.81)	.59
Dismissing	25	2.55.	63.65 (9.26)	.79
Disapproving	23	2.10	48.34 (12.02)	.90

*Note.* Each mother's average Likert-type score for each subscale was used in later analyses.

predominately laissez-faire, and 3% ( $n = 1$ ), had an equal score on emotion coaching and laissez-faire. Thus, no mother in this sample reported a predominately dismissing or disapproving style, although some mothers had scores on these scales that were higher relative to that of others in the sample.

***Converting scores on the ERPSST-L to scores on the Emotion-Related***

***Parenting Styles (ERPS).*** Though participants did not directly complete the ERPS, subscale scores may be computed by extracting corresponding scores from the 20 items on the ERPSST-L that are contained in the ERPS. To calculate an emotion-coaching subscale score on the ERPS, scores on items 34, 75, 29, 35, and 64 from the ERPSST-L (corresponds to items 3, 6, 8, 15, and 19 on the ERPS, respectively) were summed. To calculate a parental rejection of negative emotion subscale score, scores on items 3, 11, 14, 41, and 66 (corresponds to items 1, 4, 10, 11, and 14 on the ERPS, respectively) were summed. To calculate a parental acceptance of negative emotion subscale score, scores on items 38, 31, 73, 72, and 39 of the ERPSST-L were summed. This corresponds to items 2, 5, 9, 12, and 16 on the ERPS, respectively. Finally, a score on the feelings of uncertainty/ ineffectiveness in emotion socialization subscale score was calculated by summing scores on items 53, 77, 48, 76, and 78 of the ERPSST-L (corresponds to items 7, 13, 17, 18, and 20 on the ERPS, respectively). As explained in Table 9, each ERPS subscale score can range from 5 (*low endorsement of that parenting style*) to 25 (*high endorsement of that parenting style*). Average scores on each subscale were calculated and used in analyses. On both the raw scores and average subscale scores, a higher score indicated greater endorsement of that emotion-related parenting style.

Table 9

*Scoring of Subscales from the Emotion Related Parenting Styles (ERPS)*

Name of ERPS Subscale	Number of Items	Range of Possible Raw Scores	Range of Possible Scores Per Item
Emotion Coaching	5	5 to 25	1 to 5
Parental Rejection	5	5 to 25	1 to 5
Parental Acceptance	5	5 to 25	1 to 5
Uncertainty/Ineffectiveness	5	5 to 25	1 to 5

*Note.* On the ERPS, parents rated their level of agreement on a scale ranging from 1 (*always false*) to 5 (*always true*).

*Means, standard deviations, and internal consistency reliability for the ERPS.*

Finally, means, standard deviations, and internal consistency reliability were also calculated on the ERPS. Refer to Table 10 for this information. Each mother's average Likert-type score for each subscale was used in later analyses. To calculate an average Likert-type score, the item responses for each individual scale were summed and then divided by the number of items for that scale. Mothers were classified according to ERPS scale with the highest score; this represented their predominant emotion-related parenting style. When examined using the ERPS, 78.8% ( $n = 26$ ) of the mothers were primarily emotion coaching, 15.2% ( $n = 5$ ) were primarily in the parental acceptance of negative emotion group, and 6.1% ( $n = 2$ ) were equally emotion coaching and accepting.

Table 10

*Means, Standard Deviations, and Cronbach's Alpha Coefficients for the Emotion-Related Parenting Styles (ERPS)*

Name of ERPSST-L Subscale	Number of Items	Average Likert-type score	Subscale Mean ( <i>SD</i> )	Alpha Coefficient
Emotion coaching	5	4.20	21.02 (2.50)	.75
Parental rejection	5	2.23	11.14 (3.36)	.78
Parental acceptance	5	3.66	18.28 (3.80)	.81
Uncertainty/ineffectiveness	5	2.20	10.98 (2.68)	.67

*Note.* Each mother's average Likert-type score for each subscale was used in later analyses.

## CHAPTER IV

### RESULTS

#### **Overview of Results**

Analyses are divided into five main sections. The first section includes data screening procedures related to missing data and statistical outliers. Next are the preliminary analyses, including the assessment of attrition in the sample, testing for assumptions to be used in the main analyses, and the identification of control variables. The third section for main analyses consists of testing the construct validity of the ERPSST-L long form, and testing the construct validity of the ERPS via zero-order correlations and partial correlations. The fourth section includes additional analyses, such as the comparing high emotion coaching and low emotion coaching groups, examining the relation between Meta-Emotion Interview parent dimensions and child dimensions, examining the role of maternal experience, and comparing results by emotion (sadness and anger). The final section ends with examples from mothers' and fathers' Meta-Emotion Interviews. Only the final section contains data pertaining to fathers.

#### **Data Screening**

**Missing data.** Prior to the main analyses, variables were examined in order to identify missing data. Missing data were not found in items for the Meta-Emotion Interview dimensions. However, missing data points on ERPSST-L items were identified on five cases, also creating missing data points on the ERPS. When data points are missing at random, as was the case in the present data set, one option is to use a mean substitution for the missing values (Tabachnick & Fidell, 2012). Mean substitutions were

used for each missing data point, as overall assumptions and testing outcomes were not impacted.

**Outliers.** Data were then examined for outliers, using a  $z$ -score of 3.29 as a cutoff, as recommended by Field (2009). One outlier ( $z = -3.89$ ) was identified for the awareness of child sadness dimension, and another outlier ( $z = -3.49$ ) was identified for the awareness of child (combined sadness and anger) dimension. Both outliers were from the same case. With outliers included in the data set, kurtosis was elevated on these dimensions ( $z = 3.81$  and  $z = 4.23$ , respectively) and skewness was within the acceptance range. Upon further inspection, it was determined these outliers were sampled from the target population and the case's other scores did not indicate a pattern of a response set. In order to reduce the impact of this variable, a score change was implemented, as recommended by Tabachnick and Fidell (2012) and Field (2009). To implement the score change for each variable, the two outliers were substituted with a raw score that was one unit smaller than the lowest score on that variable. In doing so, the impact of this outlier was reduced.

### **Preliminary Analyses**

**Attrition.** Mitchell (1985) emphasized the importance of comparing nonrespondents and respondents. If a special characteristic was related to the respondents but not the nonrespondents, or vice versa, it may indicate that the sample is not representative or that a confounding variable might be present. Thus, attrition was assessed in the present study because 49 parents completed the ERPSST-L and questionnaire package but 10 did not return for the Meta-Emotion Interview (note that two Meta-Emotion Interview tape were inaudible and spouse pairs were removed,

reducing the sample size to 36 mothers and fathers). Thus, “respondents” refers to participants who completed the study questionnaires and returned to complete the Meta-Emotion Interview. “Non-respondents” refers to participants who completed the study questionnaires but not the Meta-Emotion Interview. The presence of statistically significant differences between these groups may warrant looking further into confounding variables.

A one-way Analysis of Variance (ANOVA) was conducted to determine if respondents differed from nonrespondents in terms of demographics (i.e., parent age, parent sex, child age, number of children, marital status, and race) and scores on the ERPSST-L subscales. In order to use this test, assumptions of homogeneity of variance, normality, interval-level data, and independence of observations were met (Field, 2009, p. 113). Findings, as shown in Table 11, indicate that no statistically significant difference was found between respondents and nonrespondents in terms of demographics and scores on the ERPSST-L (all  $ps > .05$ ).

**Assumptions.** After using score substitution to resolve the problem with two outliers, skewness and kurtosis values were converted into  $z$ -scores by dividing each skewness and kurtosis value by its respective standard error, as recommended by Field (2009). For small to moderate samples, an alpha level of .001 (i.e., an absolute value of 3.29) can be used to indicate a normal distribution (Tabachnick & Fidell, 2012). Skewness and kurtosis values all met the assumption of normality with the exception of the Meta-Emotion Interview parent awareness of sadness dimension (skewness  $z = -3.85$ ). Across all other variables, the range of skewness was from  $z = -2.93$  to  $z = 1.80$ ; the range of kurtosis was from  $z = -1.57$  to  $z = 2.64$ . Frequency histograms were visually

Table 11

*One-Way Analysis of Variance (ANOVA) Comparing Respondents and Non-Respondents on Demographic Variables and Emotion-Related Parenting Styles Self-Test – Likert (ERPSST-L) Scores*

	Respondents ( <i>n</i> = 39) <i>M</i> ( <i>SD</i> )	Non- Respondents ( <i>n</i> = 10) <i>M</i> ( <i>SD</i> )	ANOVA Result	$\eta^2$
Parent Age	31.18(5.67)	29.8(3.52)	$F(1, 47) = .54, p = .468$	.01
Parent Sex	1.87(.34)	1.70(.48)	$F(1, 47) = 1.71, p = .197$	.04
Child Age	4.00(.83)	4.30(.82)	$F(1, 47) = 1.05, p = .311$	.02
Child Sex	1.54(.51)	1.50(.53)	$F(1, 47) = .05, p = .832$	.01
<i>n</i> Children	2.02(.90)	1.80(.63)	$F(1, 47) = .55, p = .462$	.01
Marital Status	2.13(1.78)	1.70(1.25)	$F(1, 47) = .51, p = .479$	.01
Race or ethnicity	2.18(2.36)	1.80(2.53)	$F(1, 47) = .20, p = .657$	.01
<b>ERPSST-L Scores</b>				
Emotion Coaching	3.79(.48)	3.92(.36)	$F(1, 47) = .62, p = .435$	.01
Laissez-faire	3.33(.37)	3.28(.39)	$F(1, 47) = .17, p = .686$	.04
Dismissing	2.55(.35)	2.37(.33)	$F(1, 47) = 2.17, p = .147$	.01
Disapproving	2.12(.49)	2.10(.34)	$F(1, 47) = .02, p = .892$	.01

*Note.* “Respondents” refers to participants who completed the study questionnaires and returned to complete the Meta-Emotion Interview. “Non-respondents” refers to participants who completed the study questionnaires but not the Meta-Emotion Interview.

inspected for normality. In general, histograms represented the normal bell curve; however, the histogram for Meta-Emotion Interview parent awareness of sadness was negatively skewed. On nearly all dimensions for the Meta-Emotion Interviews, skewness values were negative, indicating that data contained scores in the higher range. In dealing with a well-educated sample, high scores on dimensions related to meta-emotion philosophy, such as parent awareness of sadness, were anticipated. One option to repair the skewness of the parent awareness of sadness variable was to use a data transformation. However, data transformation may make interpretation difficult in other planned analyses (Tabachnick & Fidell, 2012), particularly so when only transforming one variable. Analyses proceeded without using a data transformation but with the acknowledgement that the assumption of normality was violated on that variable.

**Identification of control variables.** Zero-order correlational analyses were first used to test if hypothesized control variables (i.e., child age, child gender, and annual family income) relate to scores on the Meta-Emotion Interview, Emotion-Related Parenting Styles Self-Test – Likert (ERPSST-L), and Emotion-Related Parenting Styles (ERPS). Though child age and gender were not significantly related to ERPSST-L scores in a study by Hakim-Larson et al. (2006), they were checked in the present sample. In order to preserve the sample size for correlational analyses, cases were excluded on a pairwise (analysis-by-analysis) basis. Complete findings are located in Table 12, and primary findings are now discussed for each control variable.

Table 12

*Zero-Order Correlations between Child Age, Child Sex, Family Income, and Scores on the Meta-Emotion Interview, Emotion-Related Parenting Styles Self-Test – Likert (ERPSST-L), and Emotion-Related Parenting Styles (ERPS).*

		Potential Control Variable		
		Child Age	Child Sex	Family Income†
Meta- Emotion Interview Variables	Parent Awareness			
	Sadness	.17	.11	-.15
	Anger	.40*	.16	.25
	Combined	.30	.15	.02
	Parent Acceptance			
	Sadness	.03	-.21	.42*
	Anger	.18	.05	.13
	Combined	.14	-.10	.35
	Parent Regulation			
	Sadness	-.22	.12	.30*
	Anger	-.25	.04	.06
	Combined	-.30	.10	.20
	Child Awareness			
	Sadness	.08	-.22	.16
	Anger	.20	-.12	.32
	Combined	.16	-.20	.27
	Child Acceptance			
	Sadness	.05	.12	-.13
	Anger	.08	-.01	.09
	Combined	.08	.05	.01
	Child Regulation			
	Sadness	-.07	.25	.04
	Anger	-.10	.24	.04
	Combined	-.10	.28	.05
Child Coaching				
Sadness	.15	.10	-.25	
Anger	.18	.08	.22	
Combined	.20	.10	.06	
ERPSST-L Variables	Emotion Coaching	.34	.15	-.15
	Laissez Faire	-.12	.16	-.53**
	Dismissing	-.05	.21	-.20
	Disapproving	.08	-.15	-.24
ERPS Variables	Emotion Coaching	.31	.09	.01
	Parental Rejection	.12	-.02	-.04
	Parental Acceptance	.26	.19	-.20
	Uncertainty/Ineffectiveness	-.08	.03	-.11

*Note.* † = A sample size of 31 was used for that variable. \*  $p \leq .05$ , \*\*  $p \leq .01$ .

**Child age.** Results of two-way correlational analyses indicated that child age was positively related to maternal awareness of her own anger,  $r(31) = .40, p = .021$  and was trending towards significance with regards to the total emotion coaching score from the ERPSST-L,  $r(31) = .34, p = .055$ .

**Child sex.** Independent sample t-tests were used to determine if mean scores on main variables differed by child sex. On average, daughters were rated higher in terms of their ability to regulate sadness and anger ( $M = 62.63, SD = 5.69$ ) as compared to sons ( $M = 58.44, SD = 8.93$ ). This difference was not statistically significant,  $t(31) = 1.62, p = .121$ ; however, it nearly represented a medium-sized effect,  $r(31) = .28$ .

**Family income.** When data were collected, annual family income was reported categorically by income brackets. Examination of frequencies for annual family income indicated that income bracket could be split at \$51,000. Thus, a high income group ( $n = 16$ ) and a low income group ( $n = 15$ ) were formed based on this median split.

Independent samples t-tests were used to determine if mean scores on main variables differed by family income bracket. On average, mothers of a higher income bracket were better able to accept their own sadness ( $M = 61.07, SD = 5.08$ ) than mothers of a lower income bracket ( $M = 56.30, SD = 6.16$ ),  $t(29) = -2.36, p = .025$ , effect size of  $r(29) = .42$ . Mothers of a higher income bracket reported being better able to regulate their own sadness ( $M = 43.70, SD = 2.89$ ) than mothers of a lower income bracket ( $M = 40.35, SD = 4.59$ ),  $t(29) = -2.45, p = .021$ , effect size of  $r(29) = .30$ . On average, mothers of a higher income reported lower scores on the ERPSST-L laissez-faire scale ( $M = 31.74, SD = 2.65$ ) than mothers of a lower income ( $M = 35.49, SD = 4.12$ ),  $t(29) = 3.03, p = .005$ , effect size of  $r(29) = -.53$ .

In summary, child age, child sex, and family income correlated with some of the main variables in the present study. Those three variables, therefore, were controlled for in subsequent partial correlation analyses.

### **Main Analyses**

The purpose of the present study was to test the construct validity of the long form and short form questionnaires by comparing subscale scores to those of the interviews. Meta-emotion theory was used to determine expected direction of correlation between variables. Correlational analyses are considered appropriate for continuous data that are normally distributed. In 1955, correlation matrices were identified by Cronbach and Meehl as appropriate for testing construct validity. They stated, “If two tests are presumed to measure the same construct, a correlation between them is predicted” (Cronbach & Meehl, 1955). The use of correlations to test the construct validity of a measure has been used in the literature (e.g., Paterson et al., 2012). It is highly recommended that researchers report effect sizes and confidence intervals in addition to the correlation coefficients in testing for construct validity (e.g., Thompson et al., 2005).

**Construct validity of the ERPSST-L long form.** The first purpose of the present study was to test the construct validity of the ERPSST-L long form. Construct validity would be demonstrated if scores on the long form correlate with scores on the Meta-Emotion Interview in the expected directions. It was hypothesized that the emotion coaching scale would positively correlate with all four child dimensions (i.e., awareness of child’s emotions, acceptance of child’s emotions, account of child’s regulation of emotions, and coaching of child’s emotions). It was expected that the laissez-faire scale would positively correlate with awareness and acceptance, but would correlate negatively

with regulation and coaching. Finally, it was anticipated that the dismissing and disapproving scales would negatively correlate with the child dimensions.

To compare the Meta-Emotion Interview child dimensions to the scales on the ERPSST-L, zero-order correlations were conducted as shown in Table 13. Greater use of a dismissing style was related to lower ratings on child dimensions related to the acceptance of emotions; the coaching of child anger,  $r(31) = -.44, p = .005$ ; and the regulation of child anger,  $r(31) = -.30, p = .048$ . Greater use of a disapproving style was negatively related to the acceptance of child anger,  $r(31) = .44, p = .005$  and the regulation of child anger,  $r(31) = -.41, p = .009$ . Statistically significant relations were not found between the Meta-Emotion Interview dimensions and the ERPSST-L emotion coaching and laissez-faire emotion-related parenting styles.

As previously explained, zero-order correlations revealed that some scores on the ERPSST-L correlated with child age, child sex, and family. The removal of the effect of these three variables was abbreviated and referred to as a subscripted  $_x$ . Thus, one-tailed partial correlations were computed to examine the ERPSST-L scores in relation to scores on the Meta-Emotion Interview while controlling for child age, child sex, and family income (refer to Table 14). These analyses were one-tailed because a specific direction was anticipated for each analysis based on literature. A statistically significant relation between emotion coaching and the child's regulation of anger ( $r_a$ ) was found,  $r_{EC,r-a,x}(26) = .35, p = .035$ . In contrast, mothers who scored high on the dismissing ( $DI$ ) scale tended to rate low on child regulation of anger,  $r_{DI,r-a,x}(26) = -.37, p = .026$ . Similarly, mothers who scored high on the disapproving ( $DA$ ) scale tended to have their children rate low on their ability to regulate anger,  $r_{DA,r-a,x}(26) = -.37, p = .028$ . When statistically significant,

Table 13

*Zero-Order Correlations between Meta-Emotion Interview Child Dimensions and Emotion-Related Parenting Styles Self-Test – Likert (ERPSST-L)*

Child Dimensions	ERPSST-L Subscales (Average)			
	Emotion coaching	Laissez-faire	Dismissing	Disapproving
Awareness				
Sadness	.14	-.03	-.02	.07
Anger	.22	-.20	-.27	-.17
Combined	.21	-.14	-.18	-.07
Acceptance				
Sadness	.07	-.05	-.33*	-.17
Anger	.15	-.08	-.53***	-.44**
Combined	.14	-.08	-.52***	-.39*
Regulation				
Sadness	-.02	-.14	.01	.06
Anger	.27	.07	-.30*	-.41**
Combined	.17	-.02	-.19	-.24
Coaching				
Sadness	.29	.13	-.27	-.15
Anger	.01	-.18	-.44**	-.23
Combined	.11	-.09	-.44**	-.23

*Note.* Pairwise deletion; one-tailed. \*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$ .

Table 14

*One-Tailed Partial Correlations between Meta-Emotion Interview Child Dimensions and Emotion-Related Parenting Styles Self-Test – Likert (ERPSST-L) Subscales Controlling for Child Age, Child Sex, and Family Income*

Child Dimensions	ERPSST-L Subscales (Average)			
	Emotion coaching	Laissez-faire	Dismissing	Disapproving
Awareness				
Sadness	.19	.05	.04	.05
Anger	.26	-.01	-.20	-.15
Combined	.26	.02	-.10	-.06
Acceptance				
Sadness	.02	-.15	-.40*	-.22
Anger	.16	-.03	-.53**	-.46**
Combined	.12	-.09	-.55***	-.42*
Regulation				
Sadness	.01	-.18	-.04	.15
Anger	.35*	.07	-.37*	-.37*
Combined	.23	-.04	-.27	-.17
Coaching				
Sadness	.20	-.01	-.37*	-.26
Anger	-.03	-.10	-.45**	-.20
Combined	.05	-.08	-.47**	-.25

*Note.* “Combined” refers to the summed scores of sadness and anger for that dimension.

\*  $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ .

the dismissing and disapproving scales of the ERPSST-L negatively correlated with the Meta-Emotion Interview child dimensions in the expected direction. Additionally, mothers who scored high on the dismissing scale tended to score low on coaching of child sadness ( $c-s$ ),  $r_{DI,c-s,x}(26) = -.37, p = .028$ ; low on coaching of child anger,  $r_{DI,c-a,x}(26) = -.45, p = .009$ ; and low on the coaching of both sadness and anger,  $r_{DI,c-sa,x}(26) = -.47, p = .006$ . Higher ratings on the Meta-Emotion Interview acceptance dimensions were related to lower scores on the dismissing scales of the ERPSST-L. No significant correlations found between emotion coaching ( $EC$ ) and acceptance of child sadness ( $ac-s$ ),  $r_{EC,ac-s,x}(26) = .02, p = .460$ ; child regulation of sadness ( $r-s$ ),  $r_{EC,r-s,x}(26) = .01, p = .491$ ; and the coaching of child anger ( $c-a$ ),  $r_{EC,c-a,x}(26) = -.03, p = .447$ . No significant correlation was found between the laissez-faire scale of the ERPSST-L and the Meta-Emotion Interview dimensions. Though there were some nonsignificant correlations, all statistically significant correlations in the data were in the anticipated direction.

**Construct validity of the ERPS short form.** It was expected that both the ERPS emotion coaching scale and the parental acceptance of negative emotion scale would positively correlate with ratings on all child dimensions of the Meta-Emotion Interview (i.e., awareness of child's emotions, acceptance of child's emotions, account of child's regulation of emotions, and coaching of child's emotions). Next, it was expected that the parental rejection of negative emotion scale and the uncertainty/ineffectiveness scales would negatively correlate with ratings on the Meta-Emotion Interview child dimensions. The ERPS would demonstrate construct validity by correlating, in the expected directions, with ratings on the Meta-Emotion Interview subscales.

Zero-order correlations (Table 15) revealed that some scores on the ERPS correlated with scores on the Meta-Emotion Interview. For example, greater parental rejection of negative emotion was associated with lower scores on emotion coaching of child anger,  $r(31) = -.30, p = .047$ . On the other hand, greater parental acceptance of negative emotion was related to greater coaching of child sadness,  $r(31) = .32, p = .036$ .

One-tailed partial correlations were computed to examine the ERPS scores in relation to scores on the Meta-Emotion Interview while controlling for child age, child sex, and family income (refer to Table 16). As done previously, the removal of the effect of child age, child sex, and family income is represented by a subscripted  $_x$ . Hypotheses were partially supported. It was found that mothers who reported greater use of emotion coaching ( $ec$ ), as measured by the ERPS, tended to be rated high in child regulation of combined sadness and anger ( $r_{sa}$ ),  $r_{ec,r_{sa}.x}(26) = .35, p = .035$ . Mothers who scored high in parental rejection ( $pr$ ) tended to score low in the coaching of child anger,  $r_{pr,c-a}.x(26) = -.32, p = .050$ . Additionally, mothers who scored high on parental acceptance ( $pa$ ) tended to score high in awareness of child anger,  $r_{pa,aw-a}.x(26) = .36, p = .032$ . Mothers who scored high in uncertainty/ineffectiveness ( $ui$ ) reported that their children had difficulty regulating anger,  $r_{ui,r-a}.x(26) = -.36, p = .028$ . Further, there was a marginal negative relation between uncertainty/ineffectiveness and child regulation of combined sadness and anger,  $r_{ui,r_{sa}.x(26) = -.30, p = .058$ . In contrast to this, both mothers who were high in emotion coaching and high in acceptance of their children's emotions were rated higher scores on their children's ability to regulate anger,  $r_{ec,r-a}.x(26) = .34, p = .037$  and  $r_{pa,r-a}.x(26) = .33, p = .042$ , respectively. Between the Meta-Emotion Interview and the ERPS, all statistically significant correlations were in the expected directions.

Table 15

*Zero-Order Correlations between Meta-Emotion Interview Child Dimensions and Emotion-Related Parenting Styles (ERPS)*

Child Dimensions	ERPS Subscales (Average)			
	Emotion coaching	Parental Rejection	Parental Acceptance	Uncertainty/Ineffectiveness
Awareness				
Sadness	.12	.22	.08	.18
Anger	.18	-.18	.27	-.06
Combined	.17	-.01	.21	.05
Acceptance				
Sadness	.01	-.20	.27	-.18
Anger	.22	-.19	.27	-.17
Combined	.16	-.22	.31*	-.20
Regulation				
Sadness	.19	.18	-.20	-.11
Anger	.28	-.14	.28	-.33*
Combined	.28	-.01	.08	-.27
Coaching				
Sadness	.17	-.10	.32*	-.24
Anger	-.06	-.30*	.23	-.08
Combined	.02	-.26	.30*	-.15

*Note.* Pairwise deletion; one-tailed. \*  $p \leq .05$ .

Table 16

*One-Tailed Partial Correlations between Meta-Emotion Interview Child Dimensions and Emotion-Related Parenting Styles (ERPS) Subscales Controlling for Child Age, Child Sex, and Family Income*

Child Dimensions	ERPS Subscales (Average)			
	Emotion coaching	Parental Rejection	Parental Acceptance	Uncertainty/Ineffectiveness
Awareness				
Sadness	.14	.22	.14	.20
Anger	.16	-.21	.36*	-.02
Combined	.17	-.01	.29	.09
Acceptance				
Sadness	-.02	-.22	.22	-.19
Anger	.22	-.19	.30	-.16
Combined	.14	-.23	.31	-.20
Regulation				
Sadness	.23	.27	-.22	-.12
Anger	.34*	-.11	.33*	-.36*
Combined	.35*	.03	.11	-.30
Coaching				
Sadness	.12	-.15	.22	-.28
Anger	-.12	-.32*	.25	-.05
Combined	-.05	-.29	.27	-.14

*Note.* "Combined" refers to the summed scores of sadness and anger for that dimension.

\* $p \leq .05$ .

## **Additional Analyses**

After conducting the study's main analyses, follow-up analyses were conducted. The first analysis involved examining emotion coaching dichotomously (high vs. low). The second additional analysis involved examining the relation between Meta-Emotion Interview child dimensions (i.e., awareness, acceptance, regulation, and coaching) and Meta-Emotion Interview parent dimensions (i.e., awareness, acceptance, and coaching). Third, a *maternal experience* variable was constructed and tested in order to explore other possible parent-related factors involved in emotion socialization.

**Emotion coaching by high and low groups.** It was unexpected that the emotion coaching subscale of the ERPSST-L and ERPS would have zero correlation with many Meta-Emotion Interview child dimensions. To further explore the nature of the zero-correlation, two emotion coaching groups were created: relatively high emotion coaching (using an absolute cutoff of 1SD above the mean) and relatively low emotion coaching (using an absolute cutoff of 1SD below the mean). These cutoff standards were created for emotion coaching scores according to the ERPSST-L and then for emotion coaching scores according to the ERPS.

### ***High and low emotion coaching group differences using ERPSST-L cutoffs.***

Cases with an ERPSST-L emotion coaching score 1SD or greater above the mean (i.e., a score equal to or higher than 98.99) were included in the high emotion coaching group ( $n = 6$ ); cases with an emotion coaching score 1SD or greater below the mean (i.e., a score equal to or lower than 77.17) were included in the low emotion coaching group ( $n = 4$ ).

Independent samples t-tests for all mother-child dyads were conducted to test for differences between ERPSST-L high and low emotion coaching groups on the Meta-Emotion Interview parent and child dimensions. Results as shown in Appendix C indicate that no statistically significant group differences were found (all  $ps > .05$ ).

***High and low emotion coaching group differences using ERPS cutoffs.*** Those relatively high in emotion coaching ( $n = 8$ ), according to the ERPS, had a score equal to or greater than 23.52. Those relatively low in emotion coaching ( $n = 4$ ) had a score of 18.52 or lower.

Independent samples t-tests for all mother-child dyads were conducted to test if differences between ERPS high and low emotion coaching groups were present on any of the Meta-Emotion Interview parent and child dimensions. Findings were similar to that of the ERPSST-L, in that no statistically significant differences were found between low and high in emotion coaching in terms of Meta-Emotion Interview dimension scores (all  $ps > .05$ ). Refer to Appendix D for complete results.

**Relation between Meta-Emotion Interview parent dimensions and Meta-Emotion Interview child dimensions.** Analyses were conducted in order to determine if scores on the Meta-Emotion Interview parent dimensions relate to scores on the Meta-Emotion Interview child dimension after controlling for child age, child gender, and annual family income (together, the removal of the effect of these three variables is indicated by a subscripted  $\times$ ). Hierarchical Multiple Regression Analyses requires 15 cases per predictor (Field, 2009), and the sample size for the present study was just below this mark. Being that there would be limited power in such an analysis, other methods of testing this research question were sought.

Partial correlation analyses were used to examine the relation between parenting factors (Meta-Emotion Interview parent dimensions) and parents' perceptions of their children's emotional experiences (Meta-Emotion Interview child dimensions). As shown in Table 17, it was found that mothers who were highly aware of their own sadness, anger, and the combination of the two were also highly aware of their children's sadness, anger, and combined. Additionally, mothers who were highly accepting of their own sadness ( $M_{a-s}$ ) were also highly aware of sadness in their children,  $r_{M-as,aw-s.x}(26) = .54, p = .003$ . Third, mothers who scored high in the ability to regulate their own anger ( $M_{r-a}$ ) also scored high in coaching of their child's anger,  $r_{M-r-a,ca.x}(26) = .40, p = .033$ . Due to the absence of statistically significant correlations in some instances, the expectation that Meta-Emotion Interview child dimensions would positively correlate with Meta-Emotion Interview parent dimensions was only partially supported.

**The role of maternal experience.** To better examine maternal factors that may be involved in one's emotion-related parenting style, a maternal experience proxy variable was created. This variable incorporated the age of the mother's oldest child (range = 1 to 22) in order to estimate how many years the mothers have taken on this role. A score of one was assigned if the oldest child was ages 0 to 6, a score of two was assigned for ages 7 to 12, a score of three was assigned for ages 13-17, and a score of four was assigned for ages 18-22. Number of children (range = 1 to 4) was incorporated in the maternal experience variable, whereby one point was scored for each child in the family. Maternal experience scores were computed by adding scores on the two variables previously described (range = 2 to 8). The role of maternal experience was assessed in order to better delineate parent-related factors in the meta-emotion process. This variable

Table 17

*Two-Tailed Partial Correlations between Meta-Emotion Interview Parent Dimensions and Child Dimensions, Controlling for Child Age, Child Sex, and Family Income*

	Parent Dimensions								
	Parent Awareness			Parent Acceptance			Parent Regulation		
	Sadness	Anger	Combined	Sadness	Anger	Combined	Sadness	Anger	Combined
<b>Child Dimensions</b>									
<b>Awareness of Child</b>									
Sadness	.58***	.50**	.61***	.54**	.16	.44*	-.11	-.08	-.12
Anger	.58***	.56**	.64***	.34	.04	.23	-.17	.17	.04
Combined	.66***	.60***	.71***	.49**	.11	.37	-.16	.06	-.04
<b>Acceptance of Child</b>									
Sadness	.01	.13	.07	.17	.01	.11	.01	.06	.05
Anger	.27	.27	.30	.19	.26	.30	.02	.27	.23
Combined	.19	.24	.24	.21	.18	.25	.02	.21	.18
<b>Child Regulation</b>									
Sadness	.17	.14	.18	.17	.03	.12	.20	-.34	-.16
Anger	.01	.03	.02	-.01	.21	.15	.18	.24	.28
Combined	.09	.09	.10	.08	.16	.16	.23	-.01	.11
<b>Coaching</b>									
Sadness	.26	.27	.30	-.02	.16	.10	-.15	.34	.19
Anger	.38*	.35	.41*	.11	.26	.24	-.17	.40*	.23
Combined	.38*	.36	.42*	.07	.25	.22	-.18	.43*	.25

*Note.* “Combined” refers to the summed scores of sadness and anger for that dimension. \*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$ .

is unique in that it does not appear on the Meta-Emotion Interview and provides another aspect of maternal factors that may relate to one's emotion-related parenting style. By using this method, mothers who scored relatively high on maternal experience (e.g., a mother of four children, with the oldest child being 22 years) could be compared to mothers scoring relatively low on maternal experience (e.g., a mother of one child who is 3 years old) in terms of meta-emotion and emotion-related parenting styles. In the present study, overall scores on maternal experience ranged from 2 to 8. The average maternal experience score was 3.48 ( $SD = 1.60$ ).

Partial correlation analyses were conducted between maternal experience and the Meta-Emotion Interview dimensions, ERPSST-L subscales, and ERPS subscales after removing the effect of child age, child sex, and family income. Findings, as shown in a column of Table 18, suggest that the relation between maternal experience ( $_{me}$ ) and regulation of maternal sadness ( $_{re-s}$ ) was statistically significant,  $r_{me,re-s,x}(26) = -.41, p = .029$ . All other partial correlations were not statistically significant.

Additionally, a two-tailed correlational analysis was conducted in order to determine if maternal experience scores related to maternal age. Findings suggest that greater maternal age was related to greater maternal experience scores,  $r(31) = .66, p < .001$ .

Though not tested directly in the present study, cohort effects in terms of maternal age may be related to maternal level of experience. As such, partial correlation analyses were conducted (as shown in Table 18) between maternal experience and the Meta-Emotion Interview dimensions, ERPSST-L subscales, and ERPS subscales after removing the effect of child age, child sex, family income, and maternal age ( $_{ma}$ ).

Table 18

*Two-Tailed Partial Correlations between Maternal Experience and the Meta-Emotion Interview Child Dimensions, Emotion-Related Parenting Styles Self-Test – Likert (ERPSST-L) Subscales, and Emotion Related Parenting Styles (ERPS) Subscales*

		Maternal Experience	
		Controlling for child age, child sex, and family income	Controlling for child age, child sex, family income, and maternal age
Meta- Emotion Interview Variables	Parent Awareness		
	Sadness	.19	.21
	Anger	.10	.06
	Combined	.17	.17
	Parent Acceptance		
	Sadness	-.17	-.26
	Anger	-.33	-.14
	Combined	-.34	-.25
	Parent Regulation		
	Sadness	-.41*	-.24
	Anger	-.19	-.08
	Combined	-.36	-.18
	Child Awareness		
	Sadness	.27	.28
	Anger	.28	.26
	Combined	.31	.31
	Child Acceptance		
	Sadness	-.36	-.56**
	Anger	-.08	-.10
	Combined	-.22	-.32
	Child Regulation		
	Sadness	.01	.05
	Anger	-.02	.02
	Combined	-.01	.04
Child Coaching			
Sadness	.04	.14	
Anger	.04	.13	
Combined	.05	.15	
ERPSST-L Variables	Emotion Coaching	.11	.05
	Laissez Faire	.20	.19
	Dismissing	-.04	-.06
	Disapproving	-.11	-.09
ERPS Variables	Emotion Coaching	.22	.15
	Parental Rejection	-.19	-.16
	Parental Acceptance	-.01	-.12
	Uncertainty/Ineffectiveness	.15	.23

*Note.* “Combined” refers to the summed scores of sadness and anger for that dimension.

\* $p \leq .05$ , \*\* $p \leq .01$ .

Findings suggest that greater maternal experience ( $m_e$ ) was associated with a lower acceptance of child sadness,  $r_{m_e,ac-s.x,ma}(23) = -.56, p = .003$ . All other partial correlations were not statistically significant.

**Differential responses based on emotion type: Sadness and anger.** In the present study, statistically significant findings were found between the Meta-Emotion Interview and ERPSST-L and ERPS. These findings involved Meta-Emotion Interview dimensions related to child anger, maternal use of dismissing and disapproving emotion-related parenting style subscales of the ERPSST-L, and the parental rejection of child emotions subscale of the ERPS. To begin, the Meta-Emotion Interview contained an equal number of questions related to sadness and anger. This was not the case with the ERPSST-L and ERPS. Sadness-specific content (i.e., items that contained the words “sad” or “sadness”) were found on 32/81 items, whereas anger-specific content (i.e., items that contained the words “anger,” “angry,” or “mad”) were found on 48/81 items on the ERPSST-L. A greater number of items related to anger also were found, with 9/20 related to sadness and 11/20 related to anger. Because more questions on the ERPSST-L and ERPS pertained to anger, it is possible that the questionnaires assess anger better than sadness. A second consideration is that children’s display of anger is often met with greater maternal invalidation as compared to children’s display of sadness (Shipman et al., 2007). Thus, it should not be surprising that in the present study many dimensions of child anger related to maternal use of dismissing and disapproving styles.

### **Examples from Mothers’ and Fathers’ Meta-Emotion Interviews**

Many parents provided unique perspectives and insight regarding meta-emotion and the study of meta-emotion as a whole. In coding the Meta-Emotion Interviews, some

response patterns were acknowledged and were deemed notable for representing the construct. In the transcription of the Meta-Emotion Interviews, “P” referred to *parent* and “I” referred to *interviewer*. Notable perspectives for mothers will first be discussed followed by that for fathers.

**Mothers.** In responding to their children’s negative emotions, many mothers demonstrated a preference for their children to be soothed before getting involved. This corresponds to Meta-Emotion Interview item E10 of the child acceptance dimension: “P prefers child to be soothed before P gets involved.”

P: And so I’ll tell him “Okay if you don’t want to talk right now. Because you are so hyper. You’re so angry. Go. Go calm down. Then come back and talk”

Some mothers received a low score in showing the child respect towards his or her emotional experiences. Under the child coaching dimension, this refers to Meta-Emotion Interview item F1: “P shows respect for child’s experience of emotions.”

P: When I see him pouting, I always say oh my god, is this my son? He looks so ugly, his face looks so ugly. He’s (cautious?) and cute. You know. He likes that, so he’s like (stretches?) his face. He goes, “Mom, this is your son. I’m not ugly.” You know. I’m like okay! And that’s the extent of it, really.

...

P: I just tell him he has an ugly face. (*Laughs*). And I tell him it’s not worth

it. Like what are you angry about, not getting a toy? Or not being able to watch a movie? Like that's really, really... it's not good.

**Fathers.** When it came to the child dimensions (i.e., awareness, acceptance, coaching, and regulation), the fathers described a variety of their strategies and approaches in dealing with their child's sadness and anger.

One item on the dimension for child acceptance of emotion states "P uses a mental (analytical) approach to C's emotions," in which a low score is provided if the parent uses this approach. Two of the three fathers whose interviews were scored used a rational approach in dealing with their children's sadness, while all of the fathers used a rational approach in dealing with their children's anger. The fathers, therefore, lost points on the acceptance dimension for using a rational approach, which is described as the parent teaching the child to approach the emotion in a way to figure it out or analyze it in order to discover a rational way to resolve the emotion.

P: I guess that it's okay to feel angry but that she should really think about what she's getting angry about. And you know. Ask herself whether it is really worth it. You know. Because there's always, you know sometimes she'll just get frustrated and angry and I'll tell her you know, (child's name) there's more than one way to skin a cat. You know. Or something to that effect. Or there's other ways of working around problem instead of hitting them head on and getting angry about them. And I'm just trying to teach her that it's okay to get angry about certain things. But uh, it's not always the best

way of going about it. And you know. Working through a problem is better than just getting angry sometimes.

All fathers in the present study specifically stated that they want their children to talk with them about both sadness and anger.

I: OK. If you could sum it up, what are you trying to teach (daughter's name) about the world of feelings?

P: That it's not bad to have any feeling. And, it's alright to even express your feelings. As her dad I hope she can tell me whenever she's having any of these feelings.

Similarly, another father described how he felt that sadness is a valuable experience. Sadness was described as important for development.

P: But I, I think there's probably still a lesson to be learned. And I'm really having a hard time describing exactly what that is. But I think there's probably something that you know, makes your heart good. Makes you a better person when under certain circumstances you experience sadness. And it's going to be hard for me to pinpoint it if you want me to get more direct than that. But I really feel that there is something there. Something to be said through that experience.

Some parents, such as this father, specifically stated they do not use distraction techniques with their children. Under the child acceptance dimension, this refers to Meta-Emotion Interview item E11: “Parent ever distracts from emotion.”

P: Mm. We just talk. Talk about it. We’ll discuss it. I ask her questions and I’ll let her tell me what’s on her mind. And I don’t say “Let’s go get ice cream” or whatever.

Emotion-related parenting styles can differ greatly from parent to parent, even when the sample is homogenous in terms of demographics. Examining specific comments from the Meta-Emotion Interview was helpful in further exploring how one’s meta-emotion philosophy shapes emotion-related parenting styles.

## CHAPTER V

### DISCUSSION

The aim of the present study was to evaluate the construct validity of the Emotion-Related Parenting Styles Self-Test – Likert (ERPSST-L) and the Emotion-Related Parenting Styles (ERPS) in conjunction with the Meta-Emotion Interview. Findings partially supported the construct validity of the ERPSST-L and ERPS in that correlation coefficients, when statistically significant, presented in the hypothesized direction.

However, unanticipated nonsignificant correlations existed in the study results such as nonsignificant differences in mothers' emotion socialization of boys and girls, and this may have been a reflection of a small, homogenous sample. Lack of construct validity, according to Mitchell (1985), may indicate contamination (variance in the measure that is not present in the construct) and/or deficiency (variance in the construct is not captured by the measure). Threats to construct validity (Cherulnik, 2001, p. 67) were considered and examined in the present study. If threats to construct validity are not addressed, construct validity may not be found. A lack of construct validity might also indicate that there is a problem with the theory, measurement strategy, item content, or the construct might not be specified very well (Westen & Rosenthal, 2005).

#### **Construct Validity of the Emotion-Related Parenting Styles Self-Test – Likert (ERPSST-L)**

It was expected that scores on the long form would correlate with scores on the Meta-Emotion Interview in previously specified directions (refer to Table 2). This hypothesis was partially supported. Specifically, a positive correlation was anticipated

between scores on the emotion coaching subscale and ratings on all Meta-Emotion Interview child dimensions (i.e., awareness, acceptance, regulation, and coaching). When correlation coefficients were statistically significant, they also were in the anticipated direction. A notable positive correlation was present between scores on emotion coaching and ratings on the child's ability to regulate anger. The significance of emotion socialization pertaining to anger is later discussed. Next, it was expected that the laissez-faire scale would positively correlate with the child awareness and child acceptance dimensions and would negatively correlate with the child regulation and coaching dimensions. This expectation was not confirmed, as correlations between this scale and the Meta-Emotion Interview child dimensions were very small or had a zero correlation. This may be due to the fact that the laissez-faire scale had an internal consistency reliability that was lower ( $\alpha = .59$ ) relative to the other subscales. Thus, the results linked to the construct validity for the laissez-faire scale should be interpreted with caution. Scores on the dismissing scale were expected to negatively correlate with all of the Meta-Emotion Interview child dimensions. When results were statistically significant, correlations were moderate and negative, supporting the hypothesis. In particular, high scores on the child acceptance dimensions and coaching dimensions were associated with lower scores on the dismissing subscale. Scores on the disapproving scale were expected to negatively correlate with Meta-Emotion Interview child dimensions. The disapproving subscale negatively correlated with the acceptance and regulation of child anger. Overall, when statistically significant relations were found between the ERPSST-L subscales and the Meta-Emotion Interview dimensions, they also were in the hypothesized direction.

### **Construct Validity of the Emotion-Related Parenting Styles (ERPS)**

Another goal of the present study was to test the construct validity of the short form (ERPS) in conjunction with scores on the Meta-Emotion Interview child dimensions. Results partially supported the hypotheses (refer to Table 3). It was expected that scores on the emotion coaching scale would positively correlate with all Meta-Emotion Interview child dimensions. Emotion coaching correlated positively with child regulation of anger and the regulation of combined sadness and anger. Next, it was predicted that parental rejection of negative emotion would correlate negatively with all Meta-Emotion Interview child dimensions. In the present study, mothers who were rated as high in parental rejection of negative emotion also were rated as being low in the coaching of child anger. As was the case for the emotion coaching subscale, it was expected that parental acceptance of negative emotion would correlate positively to all Meta-Emotion Interview child dimensions. Mothers who scored high in parental acceptance of negative emotion tended to score high in awareness and regulation of child anger. Finally, it was expected that mothers who feel uncertain or ineffective in emotion socialization also would be rated as having low scores on all Meta-Emotion Interview child dimensions. Findings suggest that mothers who scored highest in uncertainty and ineffectiveness had children who were rated as having difficulty regulating anger. This may exemplify a situation in which a mother of a child who has great difficulty regulating his or her anger may feel inadequate or unsuccessful in helping the child deal with anger. The finding for the uncertainty/ineffectiveness scale is in contrast to the finding that scores on the ERPS emotion coaching and parental acceptance scales positively correlated with scores on child regulation of anger. Though not tested directly,

it can be suggested that a child's ability to regulate anger may have a bidirectional effect on a parent's emotion-related parenting style. Otherwise, the relation between the uncertainty/ineffectiveness parenting style and dimensions on the Meta-Emotion Interview were not statistically significant. This may have been related to the fact that this subscale had a relatively low internal consistency reliability of .67. Additionally, it is important to note that the uncertainty/ineffectiveness scale was designed in a study that used a sample of parents of children with developmental disabilities.

The relation between parent dimensions and child dimensions of the Meta-Emotion Interview also was explored. The expectation that Meta-Emotion Interview child dimensions would positively correlate with Meta-Emotion Interview parent dimensions was only partially supported. The strongest findings were found between the statistically significant, positive relation between child awareness dimensions and parent awareness dimensions. The association between the parent and child dimensions of the Meta-Emotion Interview have been explored in other studies. For example, Hunter and colleagues (2011) administered the Meta-Emotion Interview to 148 mothers and 106 fathers. They found that both mothers' and fathers' scores on the parent dimensions of the Meta-Emotion Interview positively related to scores on the child dimensions. They also found that mothers' scores on the parent dimensions positively correlated with fathers' scores on the parent dimensions. In summary, though the relation between parent dimensions and child dimensions of the MEI was only partially supported in the small sample used in the present study, it has been clearly supported in other research using a larger sample (Hunter et al., 2011).

## **Limitations and Directions for Future Research**

The first limitation of the present study is the small sample size ( $N = 33$  mothers). Small sample size limits statistical power, which is why trends often were found when relations were not always statistically significant. Statistical power also was reduced when multiple control variables were used. A limitation of the present study is the exclusion of fathers from analyses. Fathers were not included in the main analyses of the present study because there were so few. The current study focused on maternal meta-emotion philosophy and should not be interpreted to be representative of paternal emotion socialization practices. Father-child relationships need to be explored in terms of emotion socialization processes. Within intact families, it may be useful to explore how spouse pairs and their children contribute to the many multi-directional processes at play (Eisenberg, 1996).

Second, the sample was homogenous in terms of ethnicity and level of education. External validity also may be limited because the sample in the present study was quite homogenous in terms of emotion-related parenting styles. Approximately 81.8% ( $n = 27$ ) of the mothers were classified as predominately emotion coaching by the ERPSST-L, and 78.8% ( $n = 26$ ) of the mothers were classified as predominately emotion coaching by the ERPS. No mother was classified as predominately dismissing, disapproving, rejecting of negative emotions, or uncertain/ineffective. The group, therefore, was not diverse and was restrictive in terms of emotion-related parenting styles. When a range of scores is restricted, correlations may show as weak or nonexistent. Contrary to expectations based on past research, the results from an ANOVA indicated that Meta-Emotion Interview scores did not differ based on either an ERPSST-L or ERPS emotion coaching or non-

emotion coaching status. Preliminary findings in the present study indicate that in order to better understand the emotion socialization process, maternal experience is a variable worthy of exploration in future studies. Future studies should incorporate a more diverse sample and also should consider other variables, such as maternal experience.

Potential threats to hypothesis validity, as described by Wampold, Davis, and Good (1990), were evaluated in the present study. The first threat to address is inconsequential research hypotheses. In this study, results have the potential to answer an important question in the theory of meta-emotion: Researchers need to know if the ERPSST-L and ERPS hold construct validity in conjunction with the original Meta-Emotion Interview. The second threat, ambiguous research hypotheses, also was considered. The hypotheses in the present study were stated with specific directions and predictions in order to reduce ambiguity. The third threat is the noncongruence of research hypotheses and statistical tests. In this study, both the hypotheses and statistical tests accentuate the direction and strength of the relations as assessed through correlation. The final threat is diffuse statistical hypotheses and tests, which is when too many analyses are conducted per hypothesis. In the present study, an effort was made to avoid using multiple statistical tests for any given hypothesis.

The measures used in the present study also pose limitations. One limitation of the Meta-Emotion Interview is that the replacement of “don’t know” scores with dimension mean scores may be an inaccurate representation of the mother’s meta-emotion philosophy. For example, on the awareness of child’s emotion dimension (9 items with a possible score range from 1 to 4), a mother received a score of 4 on two items but was coded “don’t know” for the remaining seven items. After mean

substitution, that mother received a perfect score of 36 on that dimension, which is likely an overestimate. When administering the Meta-Emotion Interview, it is the responsibility of the interviewer to ensure that the parent continues to discuss only the target child. However, on the questionnaire, it is possible for a parent to deviate from this expectation, as shown in the comments from parents below.

P: Now if we're talking about my other son it's different. It's a whole different relationship. Which is why on the questionnaire I think I may have mismatched some questions.

Another parent discussed a limitation of both the questionnaire and the possible inconsistency and/or situationally-dependent emotion-related parenting style:

P: ... Like I said with the, with the questionnaire. I found that it was kind of difficult to answer because there are different situations for when he's feeling angry. And then there's different situations for when he's feeling sadness.

But, but I mean for different reasons for different...

.....So it's kind of hard to answer like in a questionnaire. The different situations when it's happening.

Gathering the full picture of emotion socialization in families may be best done by using multiple methodologies. The interview provides parents with an opportunity to describe and clarify their meta-emotion philosophies by using a variety of examples.

Questionnaires, such as the ERPSTT-L and ERPS, are helpful in quickly getting a sense of a parent's meta-emotion philosophy.

The exploration of meta-emotion philosophy as developed by Gottman, Katz, and Hooven (2006) has expanded to areas beyond parent-child relationships. Over the past decade, there have been some promising developments in the area of meta-emotion. The construct of meta-emotion also has been explored in marital relationships (e.g., Schwab, 2001; Yoshimoto, 2005) and has been used to enhance an understanding of relational aggression and emotional regulation (Bowie, 2010). Currently, meta-emotion is being explored in children and adolescents. For instance, Taylor and Carrère (2002) established a meta-emotion interview and coding system for children ages 7 to 8, known as the Family Health Project Child Meta-Emotion Interview. For older children, Windecker-Nelson and Katz (2004) published the Child–Adolescent Meta-Emotion Coding System. This measure has been used to investigate emotional competence and risky behaviour of adolescents (Hessler & Katz, 2010), to assess emotion regulation and physiological responses during peer provocation (Hessler & Katz, 2007), and to investigate the emotion competence of children who have been exposed to domestic violence (Katz, Hessler, & Annett, 2007). In a study by Hunter and colleagues (2011), 75 depressed and 77 healthy adolescents completed the Child and Adolescent Meta-Emotion Interview (Katz & Windecker-Nelson, 2004), while mothers and fathers completed the Meta-Emotion Interview. They found that dimensions of the Child and Adolescent Meta-Emotion Interview were found to significantly correlate with parent dimensions of the Meta-Emotion Interview. Thus, it remains appropriate to examine meta-emotion philosophy in adolescence. With both a measure for child meta-emotion and adolescent meta-emotion,

it may be possible to follow a child's meta-emotion longitudinally. Perhaps meta-emotion philosophy can later be investigated in other family compositions (e.g., grandparent-child families and stepparent-stepchild relationships), as well as in child-care settings (e.g., socialization practices of Early Childhood Educators).

Clearly, meta-emotion philosophy has expanded beyond parent-child dyads. It would be optimal to explore meta-emotion philosophy using multiple informants (e.g., teachers) via multiple methods (i.e., interview, self-report questionnaires, and observations). Using solely a self-report questionnaire poses a number of problems. The first is social desirability, which is a research concern particularly for face valid questionnaires. In addition to social desirability, another limitation of using a self-report questionnaire is that results may not necessarily inform what occurs in the home. Respondents may describe emotion coaching techniques, for example, that they would ideally use, not ones that are typically implemented. It also would be useful to examine the ERPSST-L and ERPS in more longitudinal studies, in order to examine the stability of emotion-related parenting styles.

It is recommended that when analyzing data from the Meta-Emotion Interview, the dimension scores should be examined separately for each emotion as well as a combined scale. As previously discussed, the most statistically significant findings in the present study involved dimensions related to anger. Does anger, as compared to sadness, play a special role in parental meta-emotion philosophy? Are there other possible explanations for this relation? Displays of anger in children tend to be met with more negative consequences from parents than are displays of sadness (Shipman et al., 2007). Anger may draw for more of the dismissing and disapproving emotion-related parenting

styles. However, when mothers coach adolescents through anger, the adolescents tend to have better anger regulation and less externalizing behaviour (Shortt, Stoolmiller, Smith-Shine, Eddy, & Sheeber, 2010). Thus, the context and nature of the emotion may inform the emotion socialization process. In a study by Shipman and colleagues (2007), it was found that mothers who physically maltreat their children tended to use more invalidation towards child anger as compared to child sadness or fear. Emotion type may play a role in the context for emotion socialization. As compared to expressions of sadness or fear, these expressions of anger in children may more likely be met with invalidating parental behaviours such as minimization (Shipman et al., 2007). Thus, when parental response to child anger is evaluated, the dismissing and disapproving responses tend to be utilized to a greater degree as compared to parental response to child sadness or fear. Another consideration is that when working with clinical samples, depressed adolescents may display more intense anger than healthy adolescents (Sheeber, Allen, Leve, Davis, Shortt, & Katz, 2009). In a case where parents of adolescents with intense anger are tested, it would be important to remember that one's predominant emotion-related parenting styles may vary for different emotions. For example, a parent of a child with intense anger may be highly disapproving of anger but may also score high in emotion coaching of sadness. As discussed earlier, more questions on the ERPSST-L and ERPS targeted anger as compared to sadness. The imbalance of questions for sadness and anger on the ERPSST-L and ERPS may be one explanation for the differential findings; however, past research may be informative as well. As described earlier, anger may draw for more of the dismissing and disapproving emotion-related parenting styles because mothers tend to

respond to expressions of anger with more negative consequences than they would for sadness (Shipman et al., 2007).

Studying meta-emotion philosophy is not only rich with information for researchers, but it can also be a valuable experience for parents. In the Meta-Emotion Interview, many parents commented on their experience in participating in the present study. Some parents expressed that it is important to socialize positive emotions as well.

P: Cause I don't think—uh in part of the question here it said something about reading stories about emotions. I don't know if I really ever read anything in particular dealing with a particular problem. But this study has open my eyes to that. Well maybe when there is a problem we'll get a book. And read it together. Because I read to her everyday but not just stories that she likes like fun and happiness. You know?

I: Yes. It sounds like you have unconsciously addressed some of these issues.

The parent in the previous excerpt indicated that emotion socialization through narratives tends to concern positive emotions. It is important to remember that meta-emotion philosophy is not restricted to unpleasant emotions, and it is a limitation that only sadness and anger were explored in the present study. Both Gottman and colleagues (1996) and Cowan (1996) proposed that it would be valuable to use the Meta-Emotion Interview to assess positive emotions. Recently, the interview has been adapted to evaluate other emotions such as pride, love, and affection. This measure, known as the Parenting Meta-Emotion Interview: A Modification of the Original Meta-Emotion

Interview, was developed by Katz and Carrère (as cited in Doohan, Carrère, & Taylor, 2004). As previously described, parents may be high in acceptance for some emotions but not others. It is, therefore, important to apply measures of emotion-related parenting styles to positive emotions as well.

One part of the present study involved examining the relation between scores on Meta-Emotion Interview parent dimensions and scores on child dimensions. The purpose of this was to inform, but not necessarily to confirm, factors that may be involved in the bidirectional exchange of emotion socialization between mothers and their children. For example, mothers high in awareness of their own sadness were also rated as being well-aware of their child's sadness. Thus, parental factors, such as emotional awareness, can inform the way they perceive and accordingly interact with their children. Katz, Maliken, and Stettler (2012) urged researchers to explore bidirectional relations between parent characteristics and child characteristics.

A major strength of the present study was that it fulfilled the need to test the construct validity of the ERPSST-L and ERPS using the original meta-emotion interview scores. Testing the construct validity of measures for meta-emotion philosophy is just the beginning. With well-validated measures of meta-emotion, researchers can better explore emotion socialization processes that contribute to emotional development in children. In summary, construct validity for the ERPSST-L and ERPS was partially supported in the present study. Statistically significant correlations were presented in the hypothesized direction. The further validation of time-efficient and user-friendly measures, such as the ERPSST-L and ERPS, may encourage more research concerning the construct of meta-emotion philosophy.

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APPENDIX A

Inter-Rater Reliability for Coding of Meta-Emotion Interviews (MEIs) for Coding Training, as Measured by Intra-Class Correlation Coefficients

MEI Dimension		Gottman Lab (15 training MEIs)	Rater 2 (13 training MEIs)	Rater 3 (11 training MEIs)
Rater 1 (15 training MEIs)	Parent Awareness			
	Sadness	.94***	.73*	.84**
	Anger	.93***	.41	.93***
	Parent Acceptance			
	Sadness	.91***	.71*	.67*
	Anger	.94***	.69*	.79**
	Parent Regulation			
	Sadness	.96***	.97***	.86**
	Anger	.97***	.91***	.82**
	Child Awareness			
	Sadness	.68*	.75*	.74*
	Anger	.89***	.42	.46
	Child Acceptance			
	Sadness	.89***	†	.90***
	Anger	.83***	.73*	.88***
	Child Regulation			
	Sadness	.97***	.42	†
	Anger	.85***	.76**	.69*
	Child Coaching			
	Sadness	.97***	.54	†
Anger	.90***	.74*	.34	

Note. † = Intraclass Correlation Coefficient could not be computed because the scale had zero variance items.

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$ .

APPENDIX B

Inter-Rater Reliability for Coding of Meta-Emotion Interviews (MEIs) for Present Study,  
as Measured by Intra-Class Correlation Coefficients

	MEI Dimension	Rater 2 (5 MEIs)	Rater 3 (5 MEIs)
Rater 1	Parent Awareness		
	Sadness	.77	.13
	Anger	.93*	.92*
	Parent Acceptance		
	Sadness	.72	.78
	Anger	.75	.86
	Parent Regulation		
	Sadness	.85*	†
	Anger	.91*	.54
	Child Awareness		
	Sadness	.91*	.94*
	Anger	.73	.96*
	Child Acceptance		
	Sadness	.94**	.92*
	Anger	.67	.91*
	Child Regulation		
	Sadness	1.00***	.87
	Anger	.97**	†
	Child Coaching		
	Sadness	.30	†
Anger	.97**	.86	

*Note.* † = Intraclass Correlation Coefficient could not be computed because the scale had zero variance items.

\*  $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$ .

APPENDIX C

Comparison of Scores on Meta-Emotion Interview Dimensions Between High And Low Emotion Coaching Groups, Based on Emotion-Related Parenting Styles Self-Test – Likert (ERPSST-L) Scores

MEI Dimension	High in Emotion Coaching ( <i>n</i> = 6) <i>M</i> ( <i>SD</i> )	Low in Emotion Coaching ( <i>n</i> = 4) <i>M</i> ( <i>SD</i> )	<i>t</i> -test Result (Two-tailed)
Parent Awareness			
Sadness	43.11(3.63)	41.46(4.74)	<i>t</i> (8) = -.63, <i>p</i> = .548
Anger	44.61(4.19)	42.75(3.59)	<i>t</i> (8) = -.74, <i>p</i> = .490
Combined	87.72(7.71)	84.21(7.65)	<i>t</i> (8) = -.71, <i>p</i> = .499
Parent Acceptance			
Sadness	55.76(6.90)	56.76(6.19)	<i>t</i> (8) = .23, <i>p</i> = .822
Anger	56.17(7.17)	56.12(5.46)	<i>t</i> (8) = -.01, <i>p</i> = .991
Combined	111.93(11.70)	112.88(6.25)	<i>t</i> (8) = .15, <i>p</i> = .887
Parent Regulation			
Sadness	41.38(6.57)	41.23(2.55)	<i>t</i> (8) = -.04, <i>p</i> = .968
Anger	39.30(7.16)	41.48(6.70)	<i>t</i> (8) = .48, <i>p</i> = .642
Combined	80.67(10.61)	82.71(8.29)	<i>t</i> (8) = .32, <i>p</i> = .756
Child Awareness			
Sadness	33.79(4.13)	34.60(2.13)	<i>t</i> (8) = .36, <i>p</i> = .731
Anger	34.02(2.58)	32.28(3.18)	<i>t</i> (8) = -.96, <i>p</i> = .368
Combined	67.81(6.50)	66.88(5.09)	<i>t</i> (8) = -.24, <i>p</i> = .817
Child Acceptance			
Sadness	46.51(4.28)	46.08(5.71)	<i>t</i> (8) = -.14, <i>p</i> = .894
Anger	40.64(2.18)	39.31(8.82)	<i>t</i> (8) = -.30, <i>p</i> = .785
Combined	87.15(4.58)	85.39(13.76)	<i>t</i> (8) = -.25, <i>p</i> = .819
Child Regulation			
Sadness	32.24(4.78)	33.00(4.24)	<i>t</i> (8) = .26, <i>p</i> = .804
Anger	27.87(7.19)	24.38(6.97)	<i>t</i> (8) = -.76, <i>p</i> = .468
Combined	60.11(10.68)	57.38(10.70)	<i>t</i> (8) = -.40, <i>p</i> = .702
Child Coaching			
Sadness	42.67(1.60)	41.49(1.97)	<i>t</i> (8) = -1.05, <i>p</i> = .326
Anger	35.12(4.33)	36.55(5.30)	<i>t</i> (8) = .47, <i>p</i> = .651
Combined	77.79(5.43)	78.04(6.83)	<i>t</i> (8) = .07, <i>p</i> = .950

*Note.* High emotion coaching group = cases (*n* = 6) with an ERPSST-L emotion coaching score 1*SD* or greater above the mean (i.e., a score equal to or higher than 98.99). Low emotion coaching group = cases (*n* = 4) with an ERPSST-L emotion coaching score 1*SD* or greater below the mean (i.e., a score equal to or lower than 77.17).

## APPENDIX D

Comparison of Scores on Meta-Emotion Interview Dimensions Between High and Low Emotion Coaching Groups, Based on Emotion-Related Parenting Styles (ERPS) Scores

MEI Dimension	High in Emotion Coaching ( <i>n</i> = 8) <i>M</i> ( <i>SD</i> )	Low in Emotion Coaching ( <i>n</i> = 4) <i>M</i> ( <i>SD</i> )	<i>t</i> -test Result (Two-tailed)
<b>Parent Awareness</b>			
Sadness	43.92(3.53)	41.75(5.06)	<i>t</i> (8) = -.88, <i>p</i> = .402
Anger	44.93(3.59)	42.36(3.15)	<i>t</i> (10) = -1.21, <i>p</i> = .254
Combined	88.86(6.91)	84.11(7.59)	<i>t</i> (10) = -1.09, <i>p</i> = .302
<b>Parent Acceptance</b>			
Sadness	57.74(6.89)	53.62(4.49)	<i>t</i> (10) = -1.07, <i>p</i> = .308
Anger	56.87(6.45)	53.89(5.86)	<i>t</i> (10) = -.78, <i>p</i> = .456
Combined	114.61(11.26)	107.51(3.49)	<i>t</i> (10) = -1.21, <i>p</i> = .250
<b>Parent Regulation</b>			
Sadness	40.97(5.62)	38.46(1.77)	<i>t</i> (10) = -.86, <i>p</i> = .412
Anger	40.11(6.89)	40.23(5.89)	<i>t</i> (10) = .031, <i>p</i> = .976
Combined	81.08(9.59)	78.69(6.37)	<i>t</i> (10) = -.45, <i>p</i> = .665
<b>Child Awareness</b>			
Sadness	34.34(3.64)	34.03(2.32)	<i>t</i> (10) = -.15, <i>p</i> = .883
Anger	34.39(2.30)	33.13(2.95)	<i>t</i> (10) = -.46, <i>p</i> = .430
Combined	68.73(5.76)	67.16(5.00)	<i>t</i> (10) = -.46, <i>p</i> = .653
<b>Child Acceptance</b>			
Sadness	46.96(4.21)	46.34(5.91)	<i>t</i> (10) = -.21, <i>p</i> = .837
Anger	41.67(4.69)	38.63(8.50)	<i>t</i> (10) = -.82, <i>p</i> = .434
Combined	88.63(7.53)	84.97(13.54)	<i>t</i> (10) = -.61, <i>p</i> = .553
<b>Child Regulation</b>			
Sadness	33.18(4.40)	29.63(2.56)	<i>t</i> (10) = -1.47, <i>p</i> = .171
Anger	28.64(6.80)	23.52(5.64)	<i>t</i> (10) = -1.29, <i>p</i> = .225
Combined	61.82(9.94)	53.14(5.94)	<i>t</i> (10) = -1.59, <i>p</i> = .144
<b>Child Coaching</b>			
Sadness	43.00(1.49)	42.27(2.24)	<i>t</i> (10) = -.68, <i>p</i> = .512
Anger	36.60(4.58)	38.94(4.46)	<i>t</i> (10) = .84, <i>p</i> = .420
Combined	79.60(5.69)	81.22(6.35)	<i>t</i> (10) = .45, <i>p</i> = .665

*Note.* High emotion coaching group = cases (*n* = 6) with an ERPS emotion coaching score 1SD or greater above the mean (i.e., a score equal to or higher than 23.52).

Low emotion coaching group = cases (*n* = 4) with an ERPS emotion coaching score 1SD or greater below the mean (i.e., a score equal to or lower than 18.52).

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