Maternal Emotional Styles and Child Social Adjustment: Assessment, Correlates, Outcomes and Goodness of Fit in Early Childhood

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Abstract

The goals of the present research were to develop a modified version of an existing self-assessment questionnaire designed to measure parents' emotional style and to examine how the aspects of child regulation may moderate the relation between the emotional styles and social outcomes in childhood. Participants in Study 1 were 140 mothers and children (73 males, 67 females, $M_{age} = 56.0$ months). The mothers completed the Maternal Emotional Styles Questionnaire (MESQ) to assess maternal emotional styles, and the Child Behavior Vignettes to assess parental goals across two scenarios. Participants in Study 2 were 50 mothers who were interviewed regarding their emotional styles using the Meta-emotion Interview, and who also completed the MESQ. In Study 3, 100 mothers and children (41 males, 59 females, $M = 58.0$ months) participated. The mothers completed the MESQ and the Child Behavior Questionnaire to assess the children's emotion and behavior regulation. Teachers completed the Child Behavior Scale to measure the indices of preschool adjustment. Results from Studies 1 and 2 indicated a two-factor scale for the MESQ, with good psychometric properties (including stability, convergent validity, and construct validity). Results from Study 3 indicated different patterns of associations between maternal emotional styles, and child adjustment for well-regulated versus dysregulated children.

Keywords: parenting; emotion and behavioral regulation; goodness of fit

In recent years, we have witnessed an increased focus on the developmental impact of parental socialization of children's emotions (e.g., Denham, 1998; Eisenberg, 1996; Goodnow, Knight, & Cashmore, 1986). From this, there is growing evidence to suggest a relation between a healthy parent–child 'emotional connection' and positive social and academic child outcomes (Gottman, 1997; Gottman & Declaire, 1997; Gottman, Fainsilber-Katz, & Hooven, 1996). Research has been conducted on parents' reactions to children's negative emotions. For example, Plomin, DeFries, and Loehlin (1977) and Scarr and McCartney (1983) report that a child's mood and behavior may evoke

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particular reactions from others. A child with a temperamentally moody disposition will elicit moody reactions from peers and parents, whereas a child with a temperamentally easy disposition may not lead to the same outcomes (Plomin *et al.*, 1977). In turn, these social reactions are likely to influence the child's development and the growth of personality attributes (Thompson, 1999).

Cook, Kenny, and Goldstein (1991) and Fish, Stifter, and Belsky (1991) found that negative parental affect toward children might be a consequence of adolescents' and young children's expression of negative affect toward their parents. Further evidence comes from Eisenberg and Fabes (1994) who found a link between mothers' perceptions of their children's temperament and mothers' reactions to their children's negative emotions. In another study, mothers' perceptions of girls' negative emotionality were positively associated with mothers who were minimizing their children's negative emotion, and were negatively associated with reports of helping to solve the issue that resulted in the negative emotion (Eisenberg, Fabes, & Murphy, 1997).

Gottman, Fainsilber-Katz, and Hooven (1997) have recently proposed that parental meta-emotion philosophy represents an important component of how children's emotions are socialized. Meta-emotion philosophy can be conceptualized as an emotional understanding between parents and children, and can theoretically be understood as an 'organized set of feelings and cognitions regarding one's own emotions and the emotions of others' (Gottman *et al.*, 1997, p. 7). One possible outcome of a strong emotional connection between parents and children is a heightened emotional understanding. This emotional understanding would lead to the development of an advanced repertoire of skills that would continually develop over the life span. Gottman and Declaire (1997) insist that children who are products of close emotional relationships with their parents will thrive in society because they will develop as 'emotionally intelligent' people.

According to Salovey and Mayer (1990), emotional intelligence has a substantial impact on human development and functioning. Through an exhaustive analysis of the intelligence research, the authors argued that emotional intelligence comprises the ability to monitor the self and others, the aptitude to discriminate among variations of emotions, and the skills necessary to employ emotional information to guide behavior and cognitions. They argue that these skills are the driving force behind successful social and emotional development. Goleman (1995) supports this position and adds that childhood is the optimal time to secure and shape children's 'lifelong emotional propensities' (p. 226).

One of the elements that may influence the aspects of emotional intelligence is the mother's own ability to regulate emotions. Denham, Renwick-DeBardi, and Hewes (1994) explored naturally occurring dyadic communication between mothers and their children. Their findings included that mothers who were skilled at regulating their own emotions (i.e., duration of sadness) had children who were more likely to attend to peers' emotions and engage in helping behavior. In contrast, long-term negative emotional communication may be counterproductive to a child's emotional development. Denham *et al.* (1994) reported that children whose mothers exhibit intense, long-lasting, negative emotions may be 'less likely than other children to respond prosocially to their mothers' or peers' emotions' (p. 503).

Drawing on these findings, it is clear that an early emotional connection between parents and their children is important from a developmental perspective. For one, the better the connection, the more likely it is that a child will have an advanced ability to empathize with others (Gottman *et al.*, 1997). Empathy has been found to be

important to the development of language, regulation skills, socio-dramatic play, morals, and attachment (Landy, 1992).

Surprisingly, there have been only a limited number of studies where researchers have explored relations between parental emotional styles and child outcomes. This may be partly due to the time-consuming nature of the Meta-emotion Interview (MEI) (Fainsilber-Katz & Gottman, 1999) that has remained the sole method of assessing parental emotional styles. In addition, the lack of research in the area may be attributed to the paucity of literature supporting that the MEI is a valid and a reliable measure of Meta-emotion Philosophy, and therefore, parental emotional styles.

The goals of the present research were to develop a modified version of an existing self-assessment questionnaire (Gottman & Declaire, 1997) designed to measure parents' emotional style, and to explore relations between emotional styles and child adjustment in preschool. Three studies were conducted to accomplish these goals. The first two studies were concerned with the development and psychometric validation of the Maternal Emotional Styles Questionnaire (MESQ). In the third study, the direct and interactive relations among maternal emotional styles, aspects of child regulation, and indices of social adjustment to preschool were explored.

Parental Emotional Styles

Researchers have become increasingly interested in the impact of parenting on the socialization of children's emotions (e.g., see Denham, 1998; Ramsden & Hubbard, 2002). Gottman *et al.* (1996, 1997) outlined the conceptual underpinnings of the theory of parental meta-emotion. *Meta-emotion* refers to an 'organized set of feelings and cognitions regarding one's own emotions and the emotions of others' (Gottman *et al.*, 1997, p. 7). As such, Gottman *et al.* (1996) proposed that parents who internalize versus those who fail to internalize the 'emotional' knowledge of themselves and their children exhibit at least two parenting characteristics.[1] These characteristics have been defined as an emotion-coaching (EC) and emotion-dismissing (ED) typology, respectively.

EC parenting style is defined as parents' awareness of emotions within themselves and their children, and the ability to use this awareness to benefit their children's socialization. Parents who espouse this particular parenting style are aware of their own emotions, can talk regarding these emotions in a differentiated manner, are aware of these emotions in their children, and assist their children with their emotions (particularly negative emotions) (Fainsilber-Katz, Gottman, & Hooven, 1996; Gottman & Declaire, 1997; Gottman *et al.*, 1996, 1997; Hooven, Gottman, & Fainsilber-Katz, 1995). Emotion coaches value a child's negative emotions as an opportunity for intimacy and can tolerate spending time with a sad, angry, or fearful child without becoming impatient with the emotion. Furthermore, EC parents perceive the realm of negative emotions as an important arena for parenting, are sensitive to their children's emotional states, respect their children's emotions, and use emotional situations constructively. For instance, an emotion coach would use emotional moments to listen to a child, empathize with soothing words and affection, help the child label the emotion that he or she is feeling, offer guidance on regulating the emotions, set limits, and teach acceptable expression of emotions and problem-solving skills (Denham, 1998; Fainsilber-Katz *et al.*, 1996; Gottman & Declaire, 1997; Gottman *et al.*, 1996, 1997; Hooven *et al.*, 1995). Gottman *et al.* (1997) reported that this form of parenting is associated with children's increased trust of their feelings, better emotion regulation (ER), and more

competent problem-solving skills. Additionally, as compared with their peers, children of emotional coaches tend to have higher self-esteem, perform better academically, and have more positive peer relations (Gottman & Declaire, 1997).

ED parenting style refers to a lack of awareness, and therefore, a diminished ability to deal with children's emotions. Characteristically, such parents lack awareness of emotions within themselves and their children, fear being emotionally out of control, are unaware of techniques to address negative emotions, and believe that negative emotions are a reflection of poor parenting skills (Gottman *et al*., 1997). Furthermore, instead of addressing displays of negative emotions, ED parents ignore or dismiss emotions, attempt to immediately rid their children of the negative emotions, and strive to reassure their children that negative feelings always pass quickly and without lasting effects. Children with dismissing parents are more likely to believe that their negative feelings are inappropriate and not valid under any circumstances (Fainsilber-Katz *et al*., 1996; Gottman & Declaire, 1997; Hooven *et al*., 1995).

Assessing Parental Emotional Styles

Fainsilber-Katz and Gottman (1999) developed the MEI (Revised) to assess the elements of a meta-emotion philosophy. The MEI is a semi-structured interview where parents are probed regarding their feelings in response to various emotions. Specific questions focus on the interviewees' awareness, acceptance, and regulation of their own negative emotions. Similar questions are then posed related to the parents' awareness, acceptance, regulation, and coaching of their *children's* emotions (see Gottman *et al*., 1996 for a more detailed description). These characteristics are used to yield scores that represent the components of a meta-emotion philosophy. Emotion coaches score high on awareness, acceptance, regulation, and coaching, whereas emotion dismissers score low on these same parental typologies. The MEI typically requires about 90 minutes to administer. Moreover, specialized training is required to conduct the interview. To date, the MEI has represented the only method of assessing parental emotional styles. This factor has likely contributed toward the relative paucity of research in this area.

Emotional Styles and Other Parenting Variables

The relations between emotional parenting styles and other parenting variables have not been extensively studied. However, in a seminal article, Darling and Steinberg (1993) reported that parenting occurs within a particular emotional climate, which is the driving force for other parenting behaviors and cognitions. Gottman *et al*. (1996) have argued that parental emotional styles are global in nature, nested within various aspects of positive and negative parenting (including parental feelings and cognitions regarding child rearing). In this regard, we might expect parental emotional styles to be related to different components of parental belief systems. In the present study, we explored the relations between EC and ED parenting styles and maternal *goals* in response to positive and negative child behaviors. The relations were explored as a measure of construct validity for the MESQ.

Parenting Goals

Parenting goals are the outcomes that parents hope to achieve during interactions with their children (Dix, 1992). Goals are experienced within specific child-rearing

situations and may vary across time and contexts (Hastings, 1995). Researchers have long theorized that the goals which parents bring to a parent–child interaction organize behavior, psychological functioning, and an emotional climate (Dix, 1992; Goodnow & Collins, 1990; Pervin, 1989). Furthermore, it has been found that parents need to be cognizant of a variety of goals in order to be successful at parenting (Dix, 1992). That is, a parent may have in mind a variety of goals in any given child-rearing situation. However, goals can be conceptually and empirically defined as different parenting elements.

A parent concerned with achieving *parent-centered* goals is interested in meeting his or her own needs (Dix, 1992). These needs typically include establishing authority, obtaining compliance, and preventing misbehavior from recurring (Hastings & Grusec, 1998). In contrast, a parent who maintains *empathetic* goals is concerned with avoiding or solving a conflict in a fair and balanced way, reaching mutually acceptable outcomes, and fostering a positive parent–child relationship (Coplan, Hastings, Lagacé-Séguin, & Moulton, 2002; Dix, 1992; Grusec, Rudy, & Martini, 1997; Hastings & Grusec, 1998).

The relations between parenting goals and emotional styles have not yet been explored. A parent who espouses *parent-centered* goals may not be interested in meeting the emotional needs of his or her child. Because parents who use parent-centered goals seek to obtain child compliance, these parents might be expected to display ED characteristics. For example, during an emotional period, a mother whose focus is on her own goals would not be likely to take the time to allow her child to experience emotions, and would be more likely to expect the child to comply with her demands to immediately cease the emotion. A mother more focused on *empathetic* goals is interested in understanding her child's point of view, and is concerned with the emotional equilibrium of the child. An attribute of EC parenting is the desire to understand how and why a child is experiencing a particular emotion. In the face of highly emotionally arousing situations, emotion coaches tend to embrace the situation as a time to discuss the emotions with their children and to teach techniques to handle affective responses. From this, it can be speculated that empathetic goals would be linked to an EC style of parenting.

Aside from the research linking parenting variables, there have been only a few studies that examine relations between parental emotional styles and child outcomes. For example, Eisenberg, Fabes, Shepard, Guthrie, Murphy, and Reiser (1999) found that parental reactions to children's negative emotions were related to children's social functioning. In the only published studies in this area, Gottman *et al*. (1996, 1997) reported associations between emotional styles and measures of social and academic functioning in a sample of just over 50 children. The results indicated that EC parenting style was associated with better regulation, behavioral adjustment (i.e., aggression), and health-related issues in preschool children. However, these results should be considered somewhat preliminary given the relatively small and ethnically homogenous sample.

In the third study, we sought to expand this research in several ways. Gottman *et al*. (1996, 1997) studied parental emotional styles in elementary school-aged children (i.e., 5- and 8-year-olds). Parental influences on child behavior are evident from earlier ages (e.g., Denham, 1998). In this regard, we extended the current research into the preschool period. Gottman *et al*. (1996, 1997) described the associations between meta-emotion and child outcomes mediated by indices of ER (i.e., basal vagal tone and vagal tone suppression). Eisenberg (1996) suggests that these indices were likely

to be indicative of attentional control, and therefore outlines the importance of considering the multifaceted nature of regulation. As such, in the present study, we also included a measure of aspects of child behavioral regulation.

Eisenberg and Fabes (1992, 1994, 1995) have defined elements of ER as involving the control of imposing stimuli and intrinsic states. A child's ability to initiate, maintain, or change internal states is yet another conceptualization of ER. This view of ER has its foundation in a theory based on child temperament that involves attention processes such as attention shifting and attention focusing. However, in the current study, we also assessed aspects of behavioral regulation, which involve the ability to control the behavioral expression of impulses and/or feelings (Eisenberg, 1996; Eisenberg *et al.*, 1999). In other words, regulation may also be conceptualized as the management of emotionally driven behavior (once emotion has occurred). A child who can successfully adjust his or her behavior would be characterized as having good behavioral-regulation ability. Thus, the research supports that the critical difference between emotion and behavioral regulation is the locus of regulation: internal psychological and physiological reactions or overt behaviors.

Both forms of regulation have been related to a number of child outcomes (e.g., Caspi, Henry, McGee, Moffitt, & Silva, 1995; Eisenberg, Shepard, Fabes, Murphy, & Guthrie, 1998). For example, ER has been found to be positively related to several social-adjustment constructs relevant to social competence (Rothbart, Ahadi, & Hershey, 1994). Eisenberg, Fabes, Murphy, Maszk, Smith, and Karbon (1995) also reported that behavioral regulation was positively related to socially appropriate behavior (including low levels of aggressive and disruptive behavior), social skills, and sociometric status.

Parental emotional styles have been linked conceptually and empirically with the development and maintenance of child regulatory abilities. Gottman *et al.* (1996, 1997) argued that parental coaching philosophies regarding the expression of emotion affect parents' inhibition of negative affect toward their children and facilitate positive parenting, as well as directly affect children's regulatory physiology and ability to regulate their own emotions. Antithetically, children whose parents dismiss negative emotions and do not talk with them regarding these emotions in a supportive way would be relatively low in their ability to manage both their emotions and their attention in social situations. There is some empirical support for these notions (Eisenberg & Fabes, 1994; Eisenberg *et al.*, 1997). It may be speculated that these dismissive characteristics would not provide the necessary environment for children to construct the tools that are needed to deal with highly emotional states.

Whereas previous researchers (e.g., Fainsilber-Katz *et al.*, 1996; Gottman *et al.* 1996, 1997; Hooven *et al.*, 1995) have explored the linear and mediated relations between ER, parental emotional styles, and indices of child adjustment, in the present study we sought to pursue relations beyond what currently exist and explore the *moderating* role of child regulation. There is some evidence to suggest that child regulation might interact with certain parenting variables in the prediction of child outcomes (Campbell, 1997; Martin, 1981; Stice & Gonzales, 1998). For example, Martin (1981) found that the combination of high mother responsiveness and low infant demandingness influenced later child compliance. Stice and Gonzales (1998) also reported that maternal and paternal control evidenced stronger relations to antisocial behavior at elevated levels of behavioral under-control. The same study reported that the combination of paternal support and behavioral under-control was associated with risky behavior such as illicit drug use.

To date, however, researchers have not explored how emotional styles might interact with child-regulation abilities in the prediction of adjustment. As such, the major goal of this third study was to explore how maternal emotional styles might interact with child regulation in the prediction of adjustment outcomes. It was hypothesized that ED parenting style may not be associated with negative outcomes among children with higher regulatory ability (high ER and/or high behavioral regulation), and that a coaching style may be associated with positive outcomes with children rated with an opposite pattern of regulatory characteristics.

Overview

The goals of the current set of studies were to develop and validate a new parental rating scale designed to assess EC and ED parenting styles, and to explore how maternal emotional styles are related to child regulation and social developmental outcomes. In Study 1, the factor structure and short-term stability of the MESQ were examined. The MESQ comprises items that probe mothers regarding the way they cope with their own emotions and their children's emotions, and how their children cope with their own emotions. The focus of this study was on negative emotions. The relations between MESQ subscales and parental goals were also explored as a measure of convergent validity. In Study 2, the construct validity of the MESQ was assessed by exploring the relation between maternal emotional styles as assessed by the MESQ and the MEI. Finally, in Study 3, a moderated model was tested to examine the prediction of child outcomes from the interaction between parental emotional styles and child behavior and ER.

Study 1: Development of the MESQ

Methods

Participants

One hundred and forty mothers[2] with preschool-aged children (73 males, 67 females, $M = 56.0$, $SD = 7.34$ months) attending nine local childcare centers in and around diverse areas of Ottawa, Canada participated in this study. The mothers' ages ranged from 26 to 38 years ($M_{age} = 32.0$, $SD_{age} = 6.0$), and they are predominately European-Canadian (78.6 per cent) and had primarily university (63.5 per cent) or college (25.7 per cent) education. All mothers received an information and questionnaire package from the director of their day care. Those mothers who decided to participate returned the package within two weeks.

Measures

Maternal Emotional Styles. The MESQ was developed to assess maternal EC and ED styles. An original pool of 45 items representing EC and ED parenting styles was adopted from a pre-existing scale of more than 100 items representing additional emotional styles beyond those of EC and ED styles (Gottman & Declaire, 1997). The scale had yet to have been examined for its psychometric properties (Gottman, 1999). The 45 items represented a combination of fear, anger, and sadness emotions across the two emotional styles. Given that the focus of this study was to measure EC and ED styles of parenting, items representing two other styles of parenting, *laissez-faire* and

disapproving, were not included in the original item pool. The 45 items were randomized for order, and responses were solicited on a 5-point Likert scale anchored from 1 (strongly disagree) to 5 (strongly agree). Six months after completing the MESQ, a subsample of $n = 64$ mothers completed the scale again.

Parental Goals. The parental goals were assessed in a subsample of $n = 75$ mothers using the Child Behavior Vignettes (CBV) (Hastings & Coplan, 1999; Hastings & Grusec, 1998). The CBV was designed to assess parental goals across a variety of situational contexts and has demonstrated good psychometric properties (Coplan *et al.*, 2002; Hastings & Coplan, 1999). Of interest in the present study was the vignette related to child pro-social behavior, as well as three vignettes related to negative child behaviors (i.e., aggression, and misbehavior in a public and a private setting). Following each vignette, the mothers rated on a scale from 1 to 5 how important each of five possible parenting goals would be for them in that situation. These included two parent-centered goals ('wanting the child to immediately behave properly' and 'wanting the child to know that his or her mother expects proper behavior') and three empathetic goals ('wanting the child to be happy', 'wanting the child and mother to feel good', and 'wanting the child to trust the mother and know that the mother loves him or her'). Following Hastings and Coplan (1999), the aggression and misbehavior scenarios were aggregated to create a measure of parental goals in response to negative child behavior. In the current study, the alphas for parent-centered and empathetic goals across the pro-social and negative-behavior settings ranged from .73 to .81.

Results and Discussion

Psychometric Properties of the MESQ

Given that the major goal of Study 1 was to develop a short-rating scale, our first task was to reduce the number of items. To do this, the distributions of scores for the MESQ original pool of 45 items (see Table 1) were explored by calculating the value of the skew statistic divided by the standard error of the skew. A total of 23 items was dropped because of significantly skewed distributions and a lack of variability (i.e., restricted range).

The remaining 22 items were subjected to exploratory factor analysis using principle components analysis extraction with Varimax rotation. Given that there were high cross-loadings between some variables or low-factor loadings, eight more items were dropped and a Varimax[3] rotation was again performed. The results indicated a two-factor solution (i.e., two factors had eigenvalues greater than 1.0). Together, these two factors accounted for 67.2 percent of the variance. The factor loadings for each subscale are shown in Table 2.[4]

Table 1. The Maternal Emotional Style Questionnaire—Original Item Pool

1. Children really have very little to be sad about.
2. I think that anger is okay as long as it is under control.
3. **When my child is sad, it's time to problem-solve.**
4. **Anger is an emotion worth exploring.**
5. **When my child is sad, I am expected to fix the world and make it perfect.**
6. **When my child gets sad, it's time to get close.**

Table 1. *Continued*

7. When my child is sad, I try to help him/her explore what is making him/her sad.
8. I really have no time for sadness in my life.
9. If you ignore a child's sadness it tends to go away and take care of itself.
10. When my child is sad, I show my child that I understand.
11. I want my child to experience sadness.
12. The important thing is to find out why a child is feeling sad.
13. I think sadness is okay as long as it's under control.
14. **Sadness is something that one has to get over, to ride out, not to dwell on.**
15. I don't mind dealing with children's sadness, so long as it doesn't last too long.
16. When my child is sad we sit down to talk over the sadness.
17. **I prefer a happy child to a child who is overly emotional.**
18. **I help my child get over sadness quickly so he/she can move on to other things.**
19. When my child is sad, I try to help him/her figure out why the feeling is there.
20. **When my child is angry, it's an opportunity for getting close.**
21. **When my child is angry, I take some time to try to experience this feeling with my child.**
22. I want my child to experience anger.
23. I don't see a child being sad as any kind of opportunity to teach the child much.
24. I think that when kids are sad they have overemphasized the negative in life.
25. I think it is good for kids to experience anger sometimes.
26. The important thing is to find out why the child is feeling angry.
27. When my child is angry, I try to be understanding of his/her mood.
28. **I try to change my child's angry moods into cheerful ones.**
29. Children really have very little to be angry about.
30. **Childhood is a happy-go-lucky time, not a time for feeling sad or angry.**
31. I'm not really trying to teach my child anything in particular about sadness.
32. **When my child gets angry my goal is to get him/her to stop.**
33. I want my child to get angry, to stand up for him-/her/herself.
34. **When my child is angry I want to know what he/she is thinking.**
35. I don't make a big deal of a child's anger.
36. When my child is mad, I just find out what is making him/her mad.
37. It's important to help my child find out what caused his/her anger.
38. When my child is angry, I usually don't take it that seriously.
39. When my child gets angry with me, I think, 'I don't want to hear this.'
40. A child's anger is important.
41. When my child is angry I think 'if only he/she could roll with the punches.'
42. When my child gets angry I think, 'Why can't he/she accept things as they are?'
43. **When my child is angry, it's time to solve a problem.**
44. I don't make a big deal out of my child's sadness.
45. Children have a right to feel angry.

Note: Items in bold remained in the final questionnaire.

Table 2. Factor Loadings for the Two-factor Solution to the Maternal Emotional Style Questionnaire (*n* = 140)

Item (Abbreviated)	Factor Loading	
	I	II
Sadness is something that one has to get over with, to ride out, and not to dwell on.	.83	
I prefer my child to be happy rather than overly emotional.	.86	
I help my child get over sadness quickly so that he/she can move on.	.87	
I try to change my child's angry mood into a cheerful one.	.85	
Childhood is a happy-go-lucky time, not a time to feel sad or angry.	.84	
When my child is angry, my goal is to make him/her stop.	.88	
When my child is sad, I am expected to fix the world and make it perfect.	.87	
When my child is angry, it's an opportunity for getting close.		.78
When my child is angry, I take some time to experience this feeling with him/her.		.75
When my child is sad, it's time to solve his/her problem.		.77
When my child is angry, I want to know what he/she is thinking.		.78
Anger is an emotion worth exploring.		.76
When my child is angry, it's time to solve his/her problem.		.79
When my child is sad, it's time to get close.		.80

Note: Only factor loadings above 0.30 are shown.

The first factor, labeled ED, had an eigenvalue of 5.2 and accounted for 37.1 percent of variance in the data. The factor consisted of seven items referring to an ED philosophy regarding maternal emotional styles and had factor loadings ranging between .83 and .88. The Cronbach's alpha for this subscale was .92. The second factor, labeled EC, had an eigenvalue of 4.2 and accounted for 30.1 percent of the variance. The seven items loading on this factor are referred to as EC parenting philosophy, and had item loadings ranging from .75 to .80. The alpha for this subscale was .90.

Stability of the MESQ Ratings

The short-term stability of the MESQ was assessed by correlating the maternal ratings from the initial data collection with the ratings completed by a sample of the same mothers six months later (*n* = 64). The EC and ED subscales were created by averaging across all items pertaining to the particular subscale. The results indicated moderate stability over six months for both ED r (63) = .58 and EC r (63) = .53.

Table 3. Correlations Between the Maternal Emotional Style Questionnaire and Parenting Goals (*n* = 75)

Parental Goal	Maternal Emotional Styles	
	Emotion Coaching	Emotion Dismissing
Parent-centered		
Negative behavior	.15	.64*
Pro-social	.12	.39*
Empathetic		
Negative behavior	.39*	.15
Pro-social	.43*	.20

*$p < .001$.

Parental Goals

The correlations between the MESQ scales and parental goals are shown in Table 3. EC parenting was significantly and positively correlated with empathetic goals, accounting for 15.2 per cent of the variance in the negative-behavior scenario and 18.5 per cent of the variance in the pro-social scenario. In contrast, ED parenting was significantly and positively related to parent-centered goals accounting for 40.9 per cent of the variance in negative behavior and 15.2 per cent of the variance in pro-social behavior.

Conclusions

The primary goal of Study 1 was to develop and establish the psychometric properties of the MESQ, designed to assess EC and ED parenting styles. The results from factor analyses yielded a two-factor solution for the MESQ. The EC and ED scales contained items that are theoretically consistent with their underlying conceptual characteristics as previously outlined by Gottman and Declaire (1997) and Gottman *et al*. (1996, 1997). It was thought that if the MESQ could withstand a six-month stability period that it would be a fair indication of the enduring nature of emotional styles. In fact, the MESQ did demonstrate moderate stability over a six-month period providing further evidence that EC and ED typologies are elements of parenting that seem to remain a constant device in parents' repertoire of tools (Gottman *et al*., 1996, 1997). Other researchers may want to investigate the nature of the emotional styles over longer periods of time to determine the extent of endurance. Had the stability time lapse been shorter, or had the MESQ not been found to be psychometrically acceptable along the six-month period, it may have signaled the variability of EC and ED parenting typologies.

It was interesting to note the positive relation between ED and parent-centered goals even in the scenario depicting child pro-social behavior. It may be speculated that mothers higher in the ED style may not have the emotional knowledge to deal with a positive emotional climate. It may be that these mothers feel the need to control at all times because they are not comfortable with positive or negative emotional situations.

As a result, they seek to control the situation while neglecting to share in the positive situation with their child.

In contrast, EC parenting was related to a greater focus on empathetic goals both in situations marked by misbehavior and pro-social interactions. Parents who focus on empathetic goals desire to address and meet both their and their children's needs (Coplan *et al.*, 2002). They also seek to solve problems in fair and balanced ways, reach mutually acceptable outcomes, and maintain the emotional harmony of their child (Hastings & Grusec, 1998). Our findings suggested that, even in the face of misbehavior, mothers rated as higher on EC were concerned with their relationships with their child and their child's well-being. It may be that these mothers would be less controlling in their disciplinary actions, and this would lead to an environment in which the parents and their child can engage together in emotional learning. This is reminiscent of the characteristics of an EC mother outlined by Gottman *et al.* (1996, 1997).

These findings provide some preliminary support for the psychometric properties, reliability, and convergent validity of the MESQ as a new rating-scale assessment of maternal emotional styles. However, to demonstrate true construct validity, it is necessary to demonstrate theoretically consistent relations between the MESQ and the traditional interview assessment of maternal emotional styles. These associations were explored in Study 2.

Study 2: Relations Between the MESQ and the MEI

Methods

Participants

Fifty mothers with children attending nine local childcare centers in and around diverse areas of Halifax, Nova Scotia participated in this study. The mothers' ages ranged from 21 to 44 years (M_{age} = 28 years, SD_{age} = 4.3 years), and they were predominately Caucasian (98 per cent) who were working (48 per cent) or who held a college diploma (30.0 per cent) or a university degree (11 per cent). All the mothers were informed and received a questionnaire package from the director of their day care. Those mothers who agreed to participate returned the package within two weeks.

Materials

MEI. The maternal emotional styles were assessed using the MEI (Gottman *et al.*, 1996). The interview was designed to measure parents' responses to a variety of questions relating to their understanding of their own and their children's emotions. Specific questions focus on the interviewees' awareness, acceptance, and regulation of their own positive and negative emotions. Similar questions related to the parents' awareness, acceptance, regulation, and coaching of their children's emotions (see Fainsilber-Katz & Gottman, 1999 for a more detailed description) are then posed. For the goals of Study 2, the question regarding children's regulation of their own emotions was not included in the analyses. The remaining variables are theoretically and empirically associated with one another in the conceptualization of meta-emotion, whereas the data regarding children's regulation refer to what a child does during the time of having the negative emotion and which do not necessarily relate to parenting.[5] The *awareness of emotions* (e.g., 'What is it like for you to be sad?' and 'What is it like for your child to be sad?') includes the ability to talk regarding emotions and the

acceptance of these emotions, the ability to distinguish one type of emotion from another, and interest in emotions. The *acceptance of emotions* (e.g., 'What do you think of sadness?' and 'What are your feelings when your child is sad?') refers to the degree to which emotions have a meaning or value. The *regulation of emotions* (e.g., 'Is there anything you do to get over your sadness?' and 'How does your child get over sadness?') concerns the ability to control the intensity of emotions. Finally, *coaching a child's emotion* (e.g., 'What do you do to help your child with this emotion?') involves helping a child label the emotional experience, accepting the child's emotion, teaching the child how to deal with intense emotions, and comforting the child having an intense emotional experience.

The interview data were collected and videotaped by four trained researchers. However, before the data were collected, the researchers were trained on the MEI using the *Meta-emotion Coding System Manual* (Hooven, 1994). Training was conducted using MEI recordings. The interview contains approximately 54 questions assessing the self and a child's emotions across three different emotional constructs (sadness, anger, and fear). On average, the MEI could be implemented within a 90-minute period, but this depended on the length of a parent's answers to the posed questions. The inter-rater reliability was computed for two pairs of researchers based on approximately 120 minutes of interview data collected before the start of the study. Following the procedure outlined by Gottman *et al*. (1996), the correlations between independent observers were examined to discern inter-rater reliability. For a complete variable matrix, the Cohen's kappa coefficients between the pairs of observers were .84 and .88.

The videotaped interviews were viewed later and summary scores were computed representing the interviewees' awareness, acceptance, and regulation of their own emotions, as well as awareness, acceptance, and coaching of their child's emotions. Correlations between these summary scores ranged from $r = .37$ ($p < .05$) to $r = .74$ ($p < .001$). A global measure of a meta-emotion, EC philosophy ($\alpha = .79$) was then computed.

MESQ. The mothers also completed the 14-item MESQ previously described in Study 1. The summary scores representing EC (seven items, $\alpha = .81$) and ED parenting styles (seven items, $\alpha = .78$) were computed.

Results and Discussion

The analyses revealed significant correlations between the MESQ subscales (EC $M = 3.86$, $SD = .61$; ED $M = 3.27$, $SD = .64$) and MEI assessments of meta-EC style. The scores from these measures were highly correlated for both EC ($r = .73$, $p < .001$) and ED ($r = -.75$, $p < .001$) styles as represented in the MESQ. Therefore, 54 and 56 percent of the variance was shared between the two measures of EC and ED, respectively.

The high degree of association between the MESQ and the MEI provides strong support for the construct validity of the MESQ as an alternative means for assessing EC and ED maternal styles. In agreement with the results of Study 1, the findings from Study 2 provide compelling evidence to suggest that maternal emotional styles can be reliably and validly assessed using this newly developed time-saving paper-and-pencil measure. In Study 3, this new measure was used to further explore the relations between maternal emotional styles and child adjustment in preschool.

Study 3: Maternal Emotional Styles and Child Adjustment to Preschool

It was previously mentioned that there is a paucity of research to examine the relationship between parental emotional styles and child regulation in the prediction of social development in childhood. In some of the only published research works, Fainsilber-Katz *et al*. (1996), Gottman *et al*. (1996, 1997), and Hooven *et al*. (1995) have explored direct and indirect associations between ER, parental emotional styles, and indices of child adjustment. In another study, Ramsden and Hubbard (2002) found that there were no relations between the individual elements of a parent's EC and a child's aggressive tendencies. In Study 3, we sought to explore the *moderating* role of child regulation. As such, the goal of this study was to explore how maternal emotional styles might interact with aspects of child regulation in the prediction of adjustment outcomes. It was hypothesized that ED parenting style may not be associated with negative outcomes among children with higher regulatory ability (high ER and/or high behavioral regulation), and that a coaching style may be associated with positive outcomes with children rated with an opposite pattern of regulatory characteristics.

Methods

Participants

One hundred mothers with children (41 males, 59 females, M_{age} = 58.0 months, SD_{age} = 6.03 months) attending seven local day care centers in and around diverse areas of Ottawa, Ontario, Canada participated in this study. The mothers' ages ranged from 22 to 31 years (M_{age} = 28 years, SD_{age} = 2 years), and they were predominately Caucasian (85 percent) and had university or college education (68 percent). All mothers were informed and received a questionnaire package from the director of their day care center. Those mothers who decided to participate returned the package within two weeks. Once the package had been returned, all teacher-based questionnaires were completed.

Measures

Maternal Emotional Styles. The mothers completed the MESQ to assess maternal EC and ED styles. The results from factor analyses in the current study replicated the factor structure found in Study 1. In the current sample, estimates of the internal consistency of items for ED and EC were high (0.80 and 0.78, respectively).

Regulation. The parents also completed the Child Behavior Questionnaire (CBQ) (Rothbart, 1996). The CBQ scale ranges from 1 (extremely untrue of child) to 7 (extremely true of child). The aspects of ER were assessed using items related to attention focusing (14 items, α = .75; e.g., 'sometimes becomes absorbed in a picture book and looks at it for a long time') and attention shifting (12 items, α = .78; e.g., 'can easily shift from one activity to another'). These two scales were significantly correlated (r = .76, p < .001), and thus combined to create an aggregate assessment of emotional regulation (see also Eisenberg & Fabes, 1994, 1995). Two subscales were used to assess *behavioral* regulation. These included items related to impulsivity (13 items, α = .78; e.g., 'usually rushes into an activity without thinking regarding it') and inhibitory control (13 items, α = .74; e.g., 'can wait before entering into a new activity if asked to'). These two scales were significantly correlated (r = −.77, p < .001),

and were thus combined (with impulsivity reversed) to create an aggregate assessment of behavioral regulation (see also Eisenberg & Fabes, 1994, 1995).

Child Adjustment. To assess the children's adjustment to preschool, the teachers completed the Child Behavior Scale (CBS) (Ladd & Profilet, 1996), which has a scale ranging from 1 (does not apply to the child) to 3 (certainly applies to the child). For the current study, we were particularly interested in the scales assessing pro-social behavior (ten items, $\alpha = .88$; e.g., 'kind toward peers'), anxious behavior (nine items, $\alpha = .81$; e.g., 'appears miserable, distressed'), and aggression (seven items, $\alpha = .86$; e.g., 'fights with other kids').

Results and Discussion

Preliminary Analyses

The preliminary analyses were run to examine the correlations between variables. There were no significant zero-order correlations between indices of maternal emotional styles and indices of adjustment. However, ED parenting was negatively associated with behavioral regulation ($r = -.22$, $p < .001$). As well, the results from t tests revealed no significant gender differences in aggression ($M_{male} = 1.55$, $SD = .78$; $M_{female} = 1.46$, $SD = .55$; $t = -.72$, not significant [NS]), anxiety ($M_{male} = 1.52$, $SD = .46$; $M_{female} = 1.44$, $SD = .44$; $t = -.63$, NS), and pro-social behavior ($M_{male} = 2.08$, $SD = .33$; $M_{female} = 2.24$, $SD = .44$; $t = 1.01$, NS).

Emotional Styles and Adjustment

Somewhat surprisingly, no direct significant relations were found between maternal emotional styles and child outcomes. These results are not consistent with the previous findings of Gottman *et al*. (1996, 1997) who reported direct links between meta-emotion philosophy and child outcomes (i.e., peer relations, child health). These different findings may be partly accounted for in terms of the different outcome variables that were examined in these different studies. Gottman *et al*. (1996, 1997) examined the longitudinal outcomes associated with parental emotions from ages 5 to 8. In the current study, the concurrent associations between these variables were explored at approximately age 4. It is possible that differences in the ages of the samples studied also contributed toward the variations in these findings.

It is intuitive to conclude that the social situations encountered in preschool differ from those of later elementary school (i.e., 3rd grade). Indeed, Gottman *et al*. (1997) suggested that 'the social skills related to peer social competence in middle childhood are not the same as the skills emotion coaches are building in their children' (p. 178). Within a preschool setting, the ratio of teachers to students is typically higher, and there are fewer opportunities for the students to be off on their own for lengths of time (e.g., recess in middle school). This different environment may temper the magnitude of the direct effect of parental emotional styles on child behavioral outcomes. Future research is clearly required to probe these novel relations.

Emotional Styles and Regulation

A significant and negative relation was found between ED parenting style and behavior regulation (BR). Children were less behaviorally regulated when their parents

used a more dismissing approach to relating to their emotional needs. Given the correlational nature of this study, the causal nature of the relation between dismissing parenting and behavioral regulation is not clear. Results from several studies have indicated that positive parental intervention is related to significant changes in how children relate to peers and others outside the home (e.g., Patterson, 1986; Tremblay, Vitaro, Gagnon, Piche, & Royer, 1992). In this regard, it may be argued that the lack of emotional awareness and support inherent in dismissing parenting contributes toward poorer child behavioral regulation. However, results from other studies have suggested that children evoke certain responses from adults (Plomin *et al*., 1977; Scarr & McCartney, 1983). In this vein, a parent may become more ED because his or her child's emotional volatility has prompted feelings of helplessness in him or her.

Assessment of Interactions[6]

In order to explore the interactive relations between maternal emotional styles and regulation in the prediction of indices of social development, a series of hierarchical regression analyses was computed (see Aiken & West, 1991; Cohen & Cohen, 1983; Pedhazur, 1997). Separate equations were computed to predict each of the indices of adjustment (e.g., pro-social behavior, anxiety). The 'main effects' variables (standardized) of EC, ED, BR, and ER were entered first. In the next step, the two-way interaction terms were entered—as represented by multiplicative products (coaching × ER, coaching × BR, dismissing × ER, and dismissing × BR).

Significant interactions were found between coaching and BR in the prediction of pro-social behavior, coaching and ER in the prediction of anxiety, and dismissing and BR in the prediction of anxiety (see Table 4). This indicated that the relation between maternal emotional style and these outcome variables varied significantly as a function of emotion or BR. The interactions were statistically explored using simple slope analyses. Following standard procedures for performing simple slope analyses, the values of −1, 0, and 1 were used to designate low, medium, and high levels. The results are shown in Figure 1.

EC was positively associated with pro-social behavior for children with lower BR ($\beta = .33, p < .05$), and with anxiety for children higher in ER ($\beta = .31, p < .05$), whereas ED was positively associated with anxiety for children with higher levels of BR

Table 4. Results of Regression Analyses Predicting Indices of Social Adjustment from Interactions Between Emotion Coaching (EC), Emotion Dismissing (ED), Emotion Regulation (ER), and Behavior Regulation (BR)

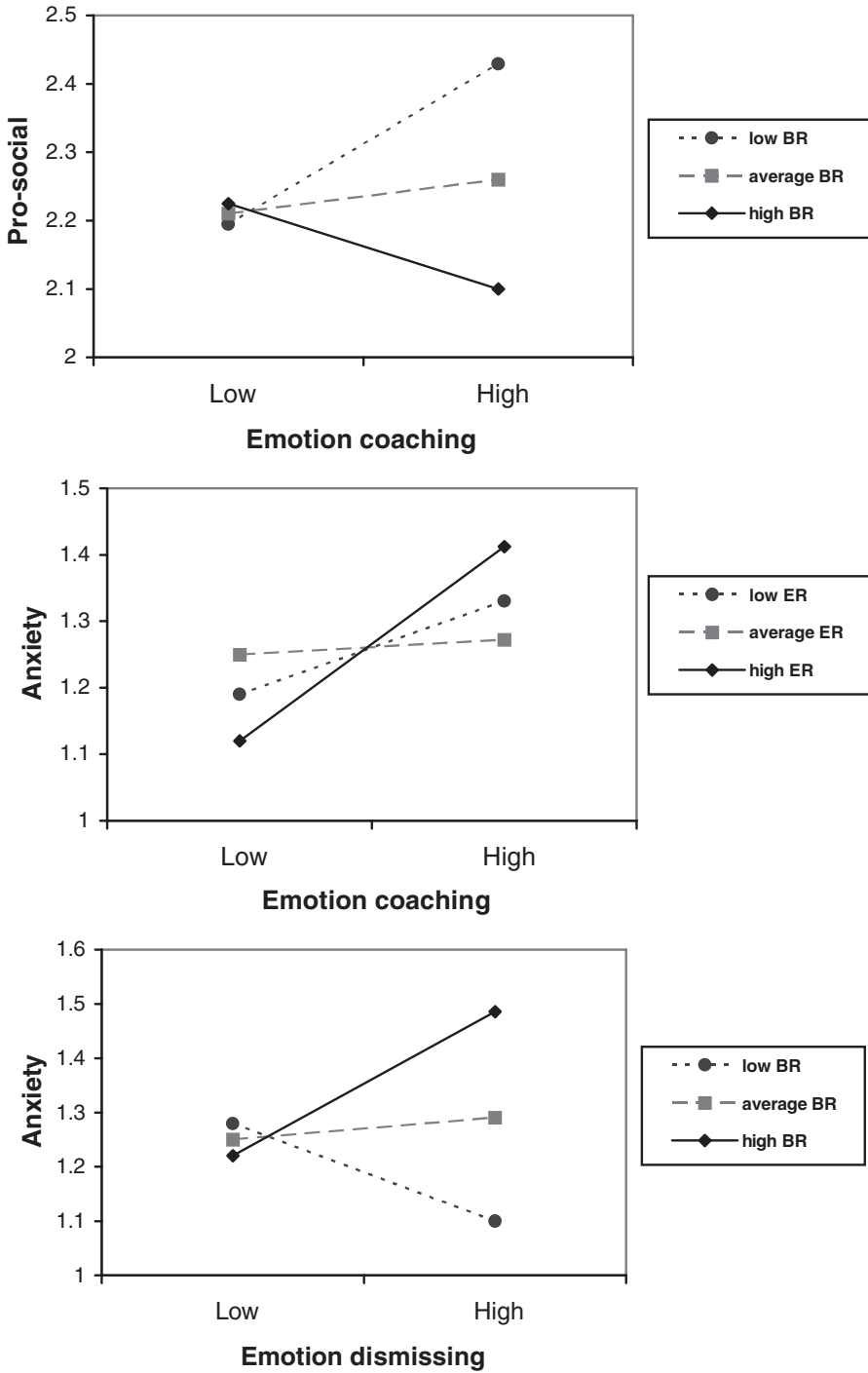| Dependent Variable	Interaction Terms (sr^2)			
	EC × ER	EC × BR	ED × ER	ED × BR
Pro-social	.010	.110*	.005	.001
Anxiety	.040*	.001	.002	.040*
Aggression	.002	.001	.003	.012

*$p < .05$.

Figure 1. Interactions between Maternal Emotional Styles and ER and BR in the Prediction of Pro-social Behavior and Anxiety.

Note: BR, behavior regulation; ER, emotion regulation.

($\beta = .32$, $p < .05$). In contrast, for children with *higher* levels of BR, EC was unrelated to pro-social behavior ($\beta = -.23$, NS). And, for children with lower levels of emotion and BR, EC and ED were unrelated to anxiety ($\beta = .17$, NS; $\beta = -.22$, NS).

Parenting, Regulation, and Adjustment

Consistent with the previous research, our results indicated interactions between measures of parenting and child regulation in the prediction of child social adjustment (e.g., Calkins, Gill, Johnson, & Smith, 1999; Campbell, 1997; Martin, 1981). For example, among children who were rated as more behaviorally dysregulated, maternal coaching was positively associated with child pro-social behavior in preschool. Quite surprisingly, however, among more well-regulated children, maternal coaching was *positively* associated with child anxiety in preschool. This unexpected result suggests that EC may not be the optimum style for socializing emotions for all children and under all circumstances. This may be a case of 'goodness of fit' or the extent to which the demands of the environment are congruent with a child's characteristics, capacities, and style of behaving (Thomas & Chess, 1977). Within the realm of parent–child relationships, *goodness of fit* refers to the extent that parenting characteristics and child characteristics are well matched.

In this regard, for more dysregulated children, the results were consistent with the notion that EC acts as a protective factor against deleterious outcomes. EC mothers would be more likely to perceive heated emotional periods as important opportunities to teach. Presumably, the empathy, dyadic communication, and awareness of children's emotional state that accompanies an EC philosophy provide a 'scaffolded' environment within which these children can develop coping skills that may be implemented during later peer interactions. This represents a good 'fit'.

However, among more well-regulated children, the same maternal emotional style was related to increased child anxiety at preschool. It may be that for children who are not disposed to emotional extremes, EC parenting might represent an 'overfocus' on the socialization of emotion. Gottman *et al*. (1997) suggest that 'being in tune' with a child's negative emotions may foster his or her development. In this regard, for well-regulated children, EC may be a functional equivalent of emotionally oversolicitous parenting.

Oversolicitous parents tend to overmanage situations for their children, restrict their children's behavior, be overly affectionate, discourage their children's independence, and direct their children's activities. As a result of this constricted environment, the children may not develop the necessary coping strategies (Rubin, Cheah, & Fox, 2001). In support of this notion, results from several recent studies have documented a relation between overprotective parenting and social wariness in early childhood (Lieb, Wittchen, Hoefler, Fuetsch, Stein, & Merikangas, 2000; Rubin *et al*., 2001; Rubin, Hastings, Stewart, Henderson, & Chen, 1997).

In this same vein, it is possible that children who are not prone to emotional outbursts may benefit from a parenting style less focused on the socialization of emotions. However, this is not to suggest that well-regulated children might benefit from an ED style.

Our results also indicated a significant interaction between ED parenting style and BR in the prediction of anxious behavior. Among more well-regulated children, ED was also significantly associated with anxiety in preschool. This relation was *not* found among more dysregulated preschoolers.

Emotion dysregulation has been linked to adjustment problems in preschool (e.g., Caspi *et al*., 1995; Coplan, Wichmann, Lagace-Seguin, Rachlis, & McVey, 1999). Thus, it would appear as though ED parenting style among dysregulated children is not associated with augmented maladjustment. Among well-regulated children, dismissing parenting seems to have a deleterious effect. Well-regulated children are not *always* well regulated. According to Gottman *et al*. (1996, 1997), dismissing parents feel anxious, fearful, and overwhelmed by their own emotions and the emotions of their children. These parents also have feelings of under-control in emotional situations and lack the problem-solving ability to deal with emotional climates as they arise. It is not difficult to imagine this dynamic contributing to a child's feelings of anxiety.

Thus, we are left with the somewhat puzzling interpretive conclusion that neither EC nor ED parenting style is conducive to positive outcomes for well-regulated children. The question is then raised as to what emotional style of parenting would best suit well-regulated children. Gottman and Declaire (1997) have described some other meta-emotion philosophies (i.e., *laissez-faire*, disapproving). As such, future research is required to explore these (and other) alternative emotional styles that may be more appropriate for children who already possess above-average regulatory abilities.

General Discussion

The goals of the present research were to develop a rating-scale assessment of maternal emotional styles, and to explore relations between emotional styles and child adjustment in preschool. In the first two studies, the MESQ was developed and validated as a rating-scale assessment of maternal EC and ED styles. The results from these studies indicated a two-factor scale for the MESQ, with acceptable psychometric properties (including stability, convergent validity, and construct validity). In Study 3, this new measure was employed to explore the associations between maternal emotional styles, child regulation, and adjustment to preschool. Three interactions between emotional styles and child regulation were found in the prediction of adjustment outcomes. The results from follow-up analyses revealed some intriguing findings regarding differential association between emotional styles and adjustment for children with different regulatory abilities.

Future Directions

The results from the present research have provided strong psychometric support for MESQ, but it goes without saying that there are multiple risks replacing an interviewing method with a 14-item self-report measure. One obvious issue is that parents who use a particular style may not be aware of adhering to one style over another. Therefore, a mother who espouses a dismissing style may not realize that her style is characteristic of a lack of emotional closeness. It must also be considered that some parents are more insightful than others and are more accurate in perceiving their emotional parenting styles, whereas less insightful parents may act in response with what they think is socially desirable. Expectancy effects, such as these, need to be considered in subsequent research. Therefore, it is hoped that future research will continue to examine the MESQ and its psychometric properties. However, the addition of this new measure to the extant literature will encourage increased investigations in this area. In addition, some preliminary findings were presented regarding the potential

importance of child regulatory abilities as a moderating factor in the relation between parental emotional styles and child adjustment in preschool. It seems clear that future research will be required to untangle the complex associations among these variables. There are also some additional issues to consider.

It must be cautioned that the MESQ is based on parental responses to children's angry and sad emotions. In general, much of the literature on the socialization of children's emotions has focused on negative emotions. It would serve the literature well to examine responses to other emotions, including positive emotions. Our ongoing investigation is focused on unravelling the complexities associated with the links between maternal emotional styles and children's positive emotions. This, in addition to the current empirical investigation, will provide researchers with the much-needed information.

The mothers who participated in Study 3 reported their own maternal emotional styles as well as their children's regulatory abilities. Therefore, shared method variance may have contributed to some of the reported findings. For example, a potential bias may be evident in parents who espouse a dismissing-style reporting on their children's regulatory characteristics. Future research should examine the accuracy of such reports. The development of an observational assessment of emotional styles would also serve to alleviate this problem.

Future research needs to further address the role of fathers in the socialization of children's emotions. In a small sample, Gottman *et al.* (1997) (see also Hooven *et al.*, 1995) reported that fathers were less aware of their own sadness than mothers, and that fathers assisted less than do mothers with the coaching of their children's sadness. However, it is not clear how a father's EC and dismissing interact with his child's regulation to predict social outcomes. Furthermore, relations between mothers' and fathers' coaching- and dismissing-parenting styles have not been extensively studied.

Another important issue is that mothers who have been interviewed and have responded to these questionnaires are predominately White, are highly educated, and have an average income. It is, therefore, difficult to discern whether the concept of maternal emotional styles and, in particular, meta-emotion philosophy is applicable across mothers of varying cultural, educational, community, and financial backgrounds. Researchers have reported that lower income levels are related to less optimal parenting (Dodge, Pettit, & Bates, 1994), whereas higher parental education is related to more productive forms of parenting (Kelley, Power, & Wimbush, 1992). Clearly, these findings have implications for the current set of results. It is imperative that future research examines maternal emotional styles and meta-emotion philosophy in a more diverse sampling of parents. It will then be possible to report how demographic variations may influence particular approaches in responding to children's emotions.

Finally, additional longitudinal investigations are required to further examine parental emotional styles over time. These investigations would allow for more conclusions regarding the direction of effect between parental emotional styles and child regulation. Moreover, almost nothing is known regarding the role of parental emotional styles in older children's development. In all, the importance of considering how different emotional styles were related to indices of adjustment for different types of children was clearly illustrated. Future research is needed to unravel complex associations among maternal emotional styles, child characteristics, and social adjustment in early childhood and beyond.

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Acknowledgments

Notes

1. Several types of emotional parenting styles have been described. For the current research, EC and ED were of primary interest. Gottman and Declaire (1997) have also described the disapproving and *laissez-faire* parenting styles.

2. Fathers were encouraged to be involved in the current set of studies. However, only four fathers were willing to participate, and therefore, our data were derived from the mothers' responses.

3. Because a few of the items were dropped as a result of high cross-loadings, indicating the potential that the factors could be related, the analyses were rerun using other rotations including an oblique rotation. Given that the results pertaining to the factor structure of the questionnaire were essentially the same, and that the correlations among the factors were negligible, we followed the procedure outlined by Pedhazur and Schmelkin (1991) and maintained the simpler orthogonal solution. We thank an anonymous reviewer for this suggestion.

4. We recognize that the use of only 14 of the original 45 questions in the final version of the MESQ represents a substantial fewer number of items than in the original item pool. However, one of the main objectives of the current set of studies was to produce a *shortened version* of the MEI in questionnaire format that would be psychometrically stable.

5. We thank an anonymous reviewer for this addition.

6. Although mediated models were not the main focus of this study, we did conduct mediated testing in the prediction child social-developmental variables; however, none reached significance.