

PARENTAL SOCIALIZATION OF EMOTION IN JAPAN: CONTRIBUTION TO
PRESCHOOLERS' EMOTION KNOWLEDGE

by

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A Dissertation
Submitted to the
Graduate Faculty
of
George Mason University
in Partial Fulfillment of
The Requirements for the Degree
of
Doctor of Philosophy
Psychology

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Date: _____ Spring Semester 2015
George Mason University
Fairfax, VA

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Knowledge

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Doctor of Philosophy at George Mason University

by

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Master of Arts
George Mason University, 2011

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Spring Semester 2015
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DEDICATION

This is dedicated to my wonderful parents, Masaru and Chikae, my funny sister and brother, Eri and Yuki, and my sweet lovely cat, Lapikichi.

ACKNOWLEDGEMENTS

I would like to thank my family, many friends, and supporters who have made this happen.

Thank you to my mother who has always supported my education.

Many thanks go out to my wonderful advisor, Dr. Susanne Denham, for all of her invaluable guidance, patience, and enduring encouragement. I would also like to acknowledge my dissertation committee members, Dr. Timothy Curby, Dr. Ilham Nasser, and Dr. Hideko Bassett for their insightful suggestions and continuous support.

I am grateful for the support of Dr. Tessei Kobayashi providing guidance and creative ideas, and Ms. Kawaguchi and Ms. Yuruki assisting data collection at NTT Communication Science Laboratories. I would also like to thank all mothers and children who participated in this study.

My generous friends, Grace Kim, Katsura Kawasaki, Kazuko Suizu, and Tamiko Matsuno, assisted me in transcribing and data coding. Without their help, I could not have finished data coding.

I would also like to express my sincere gratitude to all of my fellow lab members and friends for their continuous support and encouragement.

Finally, I would like to thank my great roommates, Zrinka, Khalid, Asha, and Avinash who provided endless encouragement, laughs, and tasty food. Many thanks and love go out to my lovely cat, Lapikichi for giving me comfort and making me smile.

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LIST OF ABBREVIATIONS AND SYMBOLS

Change in F ratio.....	ΔF
Change in R-squared.....	ΔR^2
Chi-square distribution.....	χ^2
F distribution.....	F
Mean	M
Probability significant level	p
Regression Coefficient.....	B
Standard Deviation.....	SD
Standard Error	SE
Standardized Regression Coefficient	β
United States	U.S.

ABSTRACT

PARENTAL SOCIALIZATION OF EMOTION IN JAPAN: CONTRIBUTION TO PRESCHOOLERS' EMOTION KNOWLEDGE

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George Mason University, 2015

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A large body of literature shows that emotional knowledge has numerous benefits for preschoolers' social-emotional functioning. As a key influential factor, parental socialization of emotion has been receiving increased attention in last decades. However, much research has been conducted in Western cultures; many researchers call for the need of further research in various cultures, especially non-Western cultures. The purpose of the present study was to investigate parental emotion teaching practice in parent-child interactions and the relation between parental emotion teaching and preschoolers' emotion knowledge in Japan. Fifty-one 3- and 4-year-old Japanese preschoolers' emotion knowledge was assessed and mother-child interactions in book reading and reminiscence of emotional experience were videotaped in a semi-structured laboratory setting. Maternal utterances were transcribed and maternal use of emotion words and emotion teaching techniques were coded. The results showed that maternal emotion teaching

techniques, specifically questioning, clarifying, and reference to child's feelings, predicted preschoolers' emotion knowledge. Also, moderation effects of preschoolers' age and gender on the relation were found. Implications of findings in relation to cultural context are discussed.

CHAPTER ONE: INTRODUCTION

Emotional development occurs throughout the lifespan. As children grow up, they begin to experience a variety of emotions and learn to express and regulate emotions through interactions with others. In order to develop effective interpersonal skills, acquiring emotion knowledge is crucial for children. Much research in Western cultures reports that parental emotional socialization plays an influential role in preschoolers' emotional development (e.g., Denham, Bassett, & Wyatt, 2015; Eisenberg, Cumberland, & Spinrad, 1998). In response to the call for the need to expand child emotional development research worldwide (e.g., Jones & Garner, 1998; Trommsdorff, 2006), there is a growing body of research investigating preschoolers' emotional competence in non-Western cultures (e.g., Raval, Raval, Salvina, Wilson, & Writer, 2013; Wang, 2001). Yet, less is known about Japanese preschoolers' emotional development, especially contributions of parental socialization to preschoolers' emotion knowledge. In the present study, relations of parental socialization of emotion, specifically emotion teaching, with Japanese preschoolers' emotion knowledge was investigated.

Significance of Emotion Knowledge in Early Childhood

Emotion knowledge is defined as understanding of one's own and others' emotions and emotion-eliciting situations (e.g., Denham, Bassett, & Wyatt, 2015; Denham, Zinsser, & Brown, 2012). It is one of the essential components of preschoolers'

emotional competence, along with emotion expressiveness and emotion regulation (Halberstadt, Denham, & Dunsmore, 2001; Mayer & Salvey, 1997; Saarni, 1999). Much research has focused on preschoolers' development of emotion knowledge and its relation to their social-emotional well-being, school readiness, classroom adjustment, and later school success (e.g., Denham et al., 2002; Denham, Bassett et al., 2012; Ensor, Spencer, & Hughes, 2011; Shields et al., 2001).

Development of emotion knowledge in preschool years

Understanding their own and other's emotions enriches children's everyday interpersonal interactions. By the end of preschool, children have typically gained the ability to identify their own emotions and infer others' emotions from expressions (Denham, 1986), which allows them to express their feelings, interpret others' emotional expressions and reactions correctly, and provide appropriate feedback to others' emotions (Denham et al., 2002). Preschool years are also an important period where additional various aspects of emotion knowledge develop. For instance, preschoolers begin to acquire knowledge of emotion-eliciting situations and emotional causes and consequences (Denham, 1986; Denham & Zoller, 1991; Dunn, Brown, Slomkowski, Tesla, & Youngblade, 1991).

Building upon early acquisition of basic emotion expressions (e.g., happy, sad, angry, afraid), preschoolers start to learn more difficult emotions, such as guilt, shame, pride, and contempt (Denham, 1998) and to understand specific cultural and social display rules (Misailidi, 2006). Also, discerning people's emotions in equivocal situations (i.e., situations that different people feel different emotions) is another critical skill that

they gradually master (Gnepp & Klayman, 1992; Gnepp, McKee, & Domanic, 1987). For instance, in a situation where a child is approached by a cat, some young children are able to infer that there are more than one possible emotional reactions (e.g., happy, scared), whereas others think of only one emotion that they usually feel.

Similar to findings in Western cultures, Japanese preschoolers develop better understanding of their own and others' emotions, emotion-eliciting situations, causes of emotions, culturally appropriate emotion expressions, and display rules as they mature (e.g., Aso & Maruno, 2007; Clancy 1999; Kikuchi, 2006; Sakuraba & Imaizumi, 2001; Sawada, 1997). Japanese preschoolers also begin to understand more difficult emotion language. Matsuo (1997) investigated whether 4, 5, and 6-year-olds understand figurative expressions describing emotions (e.g., "She looks like a jumping bunny" for happiness. "He looks like a faded flower" for sadness) and found that even 4-year-olds identified those expressions, and the accuracy of their understanding increased with age.

The role of emotion knowledge in school readiness and classroom adjustment

In recent years, there has been increasing attention to the importance of young children's emotional development for school readiness and classroom adjustment in both Western and Eastern cultures (e.g., Aoki et al, 2008; Denham, 2006; Denham, Bassett et al., 2012; Kam, Wong, & Fung, 2011; Shields et al., 2001). For instance, children who acquire emotion knowledge demonstrate better attention to academic tasks (Trentacosta & Izard, 2007). Being able to accurately interpret others' emotions prevents children from misunderstanding others, which is linked to successful school transition from preschool to school (Raver & Knitzer, 2002). Research also has shown that emotion

knowledge is an important predictor of classroom adjustment (Denham, Bassett et al., 2012; Shields et al., 2001). Children with access to emotion knowledge like going to school, follow teachers' instructions, are motivated to try new activities, and get less frustrated in new situations.

In respect of social and academic success in school, children's emotion knowledge is related to more prosocial behaviors with peers, greater peer acceptance, higher social skills ratings by teachers, and better classroom achievement (Denham et al., 2003; Denham, McKinley, Couchoud, & Holt, 1990; Ensor et al., 2011; Garner & Waajid, 2008). Furthermore, children's later academic success was predicted by acquisition of emotion knowledge in preschool (Denham, Bassett et al., 2012).

In contrast, preschoolers' emotion knowledge deficits are linked to negative outcomes. Difficulties with emotion understanding can lead to misinterpretation of social situations and other's motivations, which may hinder successful classroom adjustment and peer interactions (Raver, Garner, & Smith-Donald, 2007; Raver & Knitzer, 2002). Lack of emotion knowledge is also related to higher risk of aggression (Denham, Blair, Schmidt, & DeMulder, 2002; Denham, Caverly, et al., 2002) and lower teacher ratings on social functioning (Izard et al., 2001).

Thus, previous research has provided compelling evidence that preschoolers' acquisition of emotion knowledge plays a critical role in their everyday interactions, social-emotional well-being, school readiness, and classroom adjustment, whereas deficit in emotion knowledge could have detrimental impacts on their life. To support

preschoolers' development of emotion knowledge, investigation of factors contributing to its development is essential.

Importance of Parental Socialization of Emotion

Much research suggests that parental socialization of emotion contributes to children's emotional development from infancy to adolescence (Morelen & Suveg, 2012; Zahn-Waxler, Klimes-Dougan, & Kendziora, 1998). Given that the preschool period can be seen as a crucial period for emotion learning (Denham & Kochanoff, 2002), parental socialization of emotion must be thoroughly explored.

Aspects of parental socialization of emotion

There are three widely acknowledged aspects of parental socialization of emotion: modeling and expressiveness, contingent reactions to child emotions, teaching of emotion (e.g., Denham, 1998; Eisenburg, Cumberland, & Spinard, 1998). Parental modeling and expressiveness is parents' emotion expressions and behaviors that preschoolers observe, listen, and imitate in everyday interactions. Contingent reactions to child emotions are defined as parents' emotional and behavioral response to children's emotions, including positive reactions (e.g., positive response, emotion-focused coping, and problem-focused coping) and negative reactions (punitive response, dismissive response, distress, and minimization). Parental teaching of emotion refers to parents' verbal explanations and discussions about emotions.

Among those aspects of parental socialization, parental teaching of emotion is the most direct way of socialization of emotion, which usually happens in daily parent-child conversations. Parents explain to their children about emotions, emotion expressions and

accompanying behaviors, emotion-eliciting situations, and causes and consequences of those situations (Denham, Zinsler et al., 2012). Directing children's attention to emotional cues is another effective teaching method to help children learn about emotions (Denham et al., 2015). Through emotion conversation, parents also assist children to label their emotional experiences with appropriate emotions (Fivush & Wang, 2005), and clarify children's understanding of emotion and correct children's misinterpretation of emotion (Denham et al., 2015). Additionally, introducing other's viewpoints and discussing how others feel in a certain situation are likely to promote children's understanding of empathy (Denham & Auerbach, 1995). Parents who teach emotions to their children are aware of such emotional experiences and ready to assist children's emotion learning; whereas, those who do not teach emotions often ignore children's emotional experience or dismiss their emotion expressions (Denham & Kochanoff, 2002).

Parental teaching of emotion: Book reading and reminiscence of emotional experience

Book reading is one of ways to teach children about emotions in parent-child interactions (Thompson & Lagattuta, 2006). When reading a picture book, parents can help their children identify characters' emotions and emotional causes and consequences, describe emotion scenes in details, connect emotions of characters to children's own experience, ask children questions to encourage them to think of emotions, correct misunderstandings, and teach emotion regulation techniques.

Denham and Auerbach (1995) reported that mothers who explained more about characters' emotions were more likely to utilize questioning (e.g., "Was she angry?"),

guiding (e.g., “Look at his smile”), and socializing language (e.g., I’d be scared too”), instead of making simple comments. They also found that mother’s use of questioning was a significant predictor of children’s acquisition of emotion knowledge; however, surprisingly, mother’s use of socializing language predicted less emotion knowledge. The authors argue that questioning may welcome children’s own input on characters’ feelings, which promotes comprehension of emotion, whereas socializing language might sound too didactic, which could demotivate children to learn about emotions. It may be possible that mothers of children with low emotion knowledge used socializing language actively to teach emotions. Additionally, Garner, Jones, Gaddy, and Rennie (1997) found that mother’s use of empathy-related comments (e.g., “poor little girl”) during book reading was positively related to preschoolers’ understanding of emotion-eliciting situations, suggesting that such mother’s comments may help children to take the perspective of others and understand others’ emotions.

In addition to book reading, reminiscence of past emotional experiences provides parents an effective opportunity to teach emotions. As Denham and Kochanoff (2002) stated, “discussing emotions provides children with reflective distance from feeling states themselves, and space in which to interpret and evaluate their feelings and to reflect upon causes and consequences” (p. 316). Reminiscence allows children to think back on past emotional experiences and evaluate their own emotions and behaviors more objectively (Fivush & Wang, 2005), as well as learning about socially and culturally appropriate emotions to display (Fivush, Berlin, Sales, Mennuti-Washburn, & Cassidy, 2003).

Reese, Bird, and Tripp (2007) compared parents' conversation style between conversation about ongoing conflict experiences and reminiscence of past emotional experience. They found that parents used more explanations in reminiscence than in conversation about ongoing emotional conflicts, suggesting that reminiscence would provide a better opportunity for parents to analyze their emotions objectify and explain emotion to children. Laible (2004) reported that children whose mother used elaborative techniques (e.g., asking for more information, adding details to children's memory) in reminiscence of past emotional experiences had better understanding of emotion. In the light of those findings, it seems plausible to expect that compared to other parent-child interaction contexts, parents are more likely to elaborate what child said in reminiscence of emotional experiences, which in turn foster children's acquisition of emotion knowledge.

Effects of preschoolers' age, gender, and verbal ability

It is important to note that how preschoolers' age, gender, and verbal ability contribute to parental socialization of emotion. With respect to children's age, research has shown that parents talk more to older children than younger children in reminiscence (Reese, Haden, & Fivush, 1993). Parents with older children may feel that their children are ready to listen their stories and can take turns in conversations. Previous research also reported a moderation effect of children's age. For older preschoolers, increasing parental usage of guiding and socializing emotion words was associated with increasing emotion knowledge (Denham, Mitchell-Copeland, Strandberg, Auerbach, & Blair, 1997). Considering that older children are cognitively, linguistically, and emotionally advanced

than younger children, older children may be more likely to be able to process information presented by parents and internalize it.

As for gender differences in socialization of emotion, previous research has shown mixed findings. Some studies conducted in Western and Eastern cultures have demonstrated that parents often talk more about emotions and use more elaborative emotion language to their daughters than sons (e.g., Fivush et al., 2003; Fivush & Buckner, 2003; Wang, 2001); on the other hand, other studies have found no effect of gender on emotion language used by parents (e.g., Fivush & Wang, 2005; Denham & Auerbach, 1995). Compared to boys, girls are more relationship-oriented (e.g., Chen, Cen, Li, & He, 2005; Cross & Madson, 1997) and more likely to use their interpersonal experience to understand emotions (Brown & Dunn, 1996). It is highly possible that parental emotion teaching during parent-child interactions may contribute to emotion knowledge more for girls than boys, regardless of the amount of parental emotion language toward them.

In addition to preschoolers' age and gender, Cole, Armstrong, and Pemberton (2010) pointed out that language plays a crucial role in preschoolers' emotional development. With a huge and rapid increase in their vocabulary, preschoolers become able to organize and evaluate their emotional experience better. Research has demonstrated that, for preschoolers with higher language skills, parents use more elaborative techniques in reminiscence (Farrant & Reese, 2000). Although children's higher verbal ability by itself is strongly associated with greater emotion knowledge (Trentacosta, Izard, Mostow, & Fine, 2006), it is plausible to expect that there would be

an interplay between parental socialization and children's verbal ability, which makes unique contribution to children's emotion knowledge. Parents who know their children have high verbal ability and are ready to take in information may engage more in the conversations about emotions and provide more explanations about emotions, which, in turn, would facilitate those children's understanding of emotion. Considering these previous research findings, the effect of preschoolers' age, gender, and verbal ability as moderators on the relation between parental socialization of emotion and preschoolers' emotion knowledge should be examined, as well as their contribution to how parents teach about emotions.

Research has provided ample evidence highlighting the influential role of parental socialization in preschoolers' emotional development. However, it is important to point out that the majority of research has been conducted in Western cultures, and the relation between parental socialization and preschoolers' emotion knowledge in non-Western cultures has not been fully investigated. In the present study, how Japanese parents teach emotions and how this teaching is related to their children's emotion knowledge, was examined.

Cultural Context in Parental Socialization of Emotion

Culture has a strong impact on "the local world of the child" (Shweder et al., 1998, p. 880). Through interpersonal communications, which contain cultural specific verbal and nonverbal behaviors, children gradually become aware of their cultural values (Dunsmore & Halberstadt, 2009; Uemura, 2000). Parental socialization goals directly reflect specific cultural views (Trommsdorff, 2006) and parental socialization practices

would foster children's emotion learning to be competent in their culture. For instance, in individualistic cultures that place importance on emotion expression to promote autonomy (Masuda et al., 2008), parents encourage children to express their feelings (Bear, Manning, & Shiomi, 2006), which may help children to learn emotions. On the other hand, in collectivistic cultures that stress emotion suppression to maintain group harmony (Kitayama, 2001; Trommsdorff & Heikamp, 2013), parents may discourage emotion expression. As a result, children may need to attend closely to the few nonverbal cues in their environment.

Although the idea of collectivistic and individualistic culture categories has been well accepted and studied by the large number of researchers, some researchers criticize the two categories as being too simplistic and ignoring variations within the categories (e.g., Rothbaum, Kakinuma, Nagaoka, & Azuma, 2007). For instance, Japan, China, and South Korea are all considered as collectivistic cultures, which value emotion suppression. Researchers, however, suggest that there are differences in emotion display rules among these cultures (Daibo, 2007; Lee & Matsumoto, 2011; Wang & Maiya, 2008). Additionally, globalization plays a role in reducing the distinctive collectivistic characteristics. For example, as contact between cultures increase, individualization has been progressing in Japanese culture, which affects people's beliefs and behaviors, such as their autonomy and independence (Doi, 2004; Hamamura, 2012). In sum, to become more informed about children's emotional development and make better generalization of research findings, it is critical to take into consideration cultural context (Yagmurlu & Altan, 2010).

Cultural Differences and Similarities in Parental Socialization of Emotion

Two Denham and colleagues (2004) reported that American, Japanese, Hispanic and Romanian parents saw the value of emotion explanation, with varying degree of support, suggesting the importance of parenting socialization of emotion is an universal belief rather than a cultural specific one. There are, however, cultural differences in what aspect of emotional competence parents focus on. Because the group-oriented cultural characteristic promotes people to pay close attention to how others see and evaluate one's behaviors, Japanese parents stress awareness of others' feelings as an important skill (Hayashi, Karasawa, & Tobinm, 2009). They often draw attention to others' emotion states, to teach emotion regulation (Kojima, 2000). By correctly assessing others' feelings, children can choose a reaction that is least disturbing for interpersonal relationships and group harmony. In contrast, American mothers often use direct communications and encourage their children to express emotion (Bear et al., 2006; Zahn-Waxler et al., 1996). A cross-cultural study supports the cultural differences in attention to one's own and others' feelings: Wang (2001) revealed that Chinese mother-child reminiscence contained more referencing to others' emotions, whereas American mothers and children focused more about their own emotions.

On the other hand, Fivush and Wang (2005) found cultural similarities in parental emotion teaching in reminiscence of past emotional experiences among Euro-American and Chinese mothers and preschoolers. Mothers in both cultures were more likely to discuss children's negative emotions by clarifying and disconfirming, whereas they often simply confirmed children's positive emotions. The authors argue that mothers put effort

into explanation of negative emotions to assist children to identify correctly and accept negative emotions; on the other hand, the main objective of conversations about positive emotional experience is strengthening emotional connection with children through shared positive memories.

In sum, previous research has shown that culture plays a critical role in parental socialization of emotion, whereas there are some cultural similarities in parental beliefs and emotion teaching. Although research in Western cultures has shown that there are positive relations between certain aspects of parental socialization and preschoolers' emotion knowledge, such relations have not been investigated in Japanese culture. Given the cultural differences in parental socialization practices, investigation in Japanese culture would allow researchers to uncover possible cultural specific relations between parental socialization and preschoolers' emotion knowledge and to add new information to emotional development literature.

Focus of the Present Study

The aim of the present study is to investigate 1) how Japanese parents teach emotions to their children during parent-child book reading and reminiscence of past emotional experiences, 2) how their socialization practices are related to preschoolers' emotion knowledge, and 3) how preschoolers' age, gender, and verbal ability contribute to parental emotion teaching and function as moderators in the relations between parental emotion teaching and emotion knowledge. Specifically, for parental emotion teaching, I was interested in examining a) whose feelings Japanese parents refer most often in reminiscence, b) which emotion teaching technique they use most in book reading and

reminiscence, c) whether Japanese parents use more elaborative teaching techniques (i.e., explaining, clarifying, socializing) for negative emotions than for positive emotions in book reading and reminiscence, and d) whether children's age, gender, and verbal ability are related to parental emotion teaching technique in book reading and reminiscence.

Given that Japanese parents highly value awareness of others' feelings (Hayashi et al., 2009; Kojima, 2000), I predicted that Japanese parents would often make reference to others' feelings, in comparison to reference to feelings of self and child. Based on the previous findings showing that both Chinese and Euro-American mothers clarified more about negative emotions but simply confirmed about positive emotions (Fivush & Wang, 2005), I hypothesized that Japanese parents would use more elaborative teaching techniques for negative emotions than positive emotions.

Considering previous research findings on the effect of children's age, gender, and verbal ability (e.g., Farrant & Reese, 2000; Reese et al., 1993; Wang, 2001), I hypothesized that parents would talk more about emotions and use more elaborative teaching techniques to children who are older, female, and/or have higher verbal ability. As a result, those children may learn more about emotions from parents.

CHAPTER TWO: METHOD

Participants

Fifty-one 3- and 4-year-old Japanese preschoolers and their mothers living in the central region of Japan were participated. They were recruited through preschools and community centers. Twenty-six were three years old and 25 were four years old. The mean age of the preschoolers was 46.53 months ($SD = 6.96$). Twenty-nine were boys and 22 girls. The mean age of mothers was 34.62 years ($SD = 5.08$).

Procedure

The study took place in a playroom at a laboratory. First, mothers were asked to complete a short questionnaire about their children's emotional reactions to some daily-life situations. Using parents' response on the questionnaire, a trained researcher administered the Affect Knowledge Test to preschoolers in the playroom, while mothers completed a questionnaire about demographic information in another room. Then, mothers were instructed to perform two tasks in the playroom. In the picture book reading task, mothers were asked to read a wordless picture book to their child for five minutes. *One Frog Too Many* (Mayer & Mayer, 1975) was selected for the task for several reasons. First, it contains various emotional scenes that would elicit discussion about emotions between parents and children. Second, it has been previously used in research in the U.S. (Denham et al., 2000). Third, it has been published in Japan and does not contain any cultural-specific information.

Next, in the reminiscence task, the experimenter gave mothers four cards with labeled emotions (happy, sad, angry, afraid) and asked them to talk with children about memories about each emotion from either mother or child's own experience or mother and child's shared experience. A timer was set for 10 minutes, and mothers were asked to continue the conversation until they hear the beep. To see naturally occurring individual differences in parental emotion word usage, the instructions were deliberately kept simple so that parents could freely talk with their children. The mother-child interactions were videotaped. After the reminiscence task, mothers stepped out from the playroom, and the experimenter administered the Picture Vocabulary Test-Revised (Ueno, Nagoshi, & Konuki, 2008) to children.

Measure

The Affect Knowledge Test (AKT)

The AKT (Denham, 1986; Denham et al., 2002; Denham & Couchoud, 1990) is a widely used measure assessing preschoolers' developmentally appropriate emotion knowledge using puppets with detachable emotion faces. It consists of two subtests: verbal and non-verbal recognition of four basic emotion expressions (i.e., happy, sad, angry, afraid) and understanding of emotion eliciting situations (stereotypical and non-stereotypical).

First, four emotion faces were presented in front of the child. On the expressive (verbal) recognition task, the puppeteer pointed to each emotion face and asked the child "How does she/he feel?" On the receptive (nonverbal) recognition task, after shuffling the emotion faces and placing them in a different order, the puppeteer asked the child

“Point to the Happy (Sad/Angry/Afraid) face.” And then, on the situation knowledge task, the puppeteer used puppets to act out short scenarios that preschoolers may encounter in daily life, and asked the child how the main character feels by saying, “How does she/he feel?” The child used the emotion faces to answer the question, as well as verbally expressed emotional responses. When the child only responded verbally, the puppeteer asked the child “Give [puppet’s name] a face” to encourage the child to choose a face from the emotional faces. If the child’s verbal and non-verbal responses were inconsistent, the child’s non-verbal response was used for scoring.

In stereotypical scenarios, the puppet’s emotional responses represented emotions that children commonly experience (e.g., feel afraid when having a scary dream). On the other hand, non-stereotypical scenarios depicted situations where children’s emotional response varies among different individuals (e.g., feel sad or angry when being excluded by a sibling). Before the assessment, parents provided information about their children’s emotional response to various non-stereotypical daily-life situations (e.g., going to preschool, seeing a big although friendly dog). Two emotions (e.g., happy, sad) were listed for each situation, and parents were asked to choose one of them that they thought their child would be most likely to show in a given situation. Using the information collected from parents, the puppeteer showed emotional responses that were different from emotions the child would usually experience (e.g., showed sad for a scenario where the child would usually feel angry). Children’s performance on all AKT items is scored from 0 to 2, with 0 for wrong response (e.g., happy for sad situation), 1 for correct positive/negative valence (e.g., angry for sad situation), and 2 for correct response.

Previous research with American preschoolers showed good internal consistency and test-retest reliabilities for both emotion recognition and emotion situation knowledge (Denham et al., 2002; Denham & Couchoud, 1990) and demonstrated the measure's validity (Denham et al., 2003; Bassett, Denham, Mincic, & Graling, 2012). Based on an earlier study where cultural differences were found in people's attention to facial feature as emotional cues (Yuki, Maddux, & Masuda, 2007), the cross-cultural adaptation of the AKT was examined in Japanese preschoolers (Watanabe et al., 2014). Given that Japanese people tend to attend on eyes as emotional cues, whereas American people are prone to focus on mouth, the AKT's emotion faces were modified with more detail provided around the eyes. The measure with modified emotion faces was administered to Japanese preschoolers, and the results of reliability analyses showed good internal consistency. In the present study, the modified emotion faces for Japanese preschoolers were used. Cronbach's alphas were .90, .72, and .89 for the total emotion knowledge, emotion recognition, and situation knowledge task, respectively.

Demographic information questionnaire

This questionnaire contained questions that assess family characteristics, such as preschoolers' age, gender, sibling information, preschool enrollment, and parents' age and employment status.

Parent-Child Affect Communication Task (PACT)

The PACT (Denham, Cook, & Zoller, 1992; Denham & Kochanoff, 2002; Zahn-Waxler, Ridgeway, Denham, Usher, & Cole, 1993) is a semi-naturalistic task assessing parental teaching of emotion. Specifically, emotion words used during parent-child

interactions (book reading and reminiscence tasks) were coded. All videotaped conversations were transcribed and coded for the following categories. Discrete emotions (e.g., happy, angry) and behavioral expressions of emotion (e.g., smile, kick) were counted as emotion words. Total number of emotion words was tallied as well as the sums for positive terms and negative terms. There were six categories for functions of utterances containing emotion words: (a) commenting, (b) explaining, (c) clarifying, (d) questioning, (e) guiding (f) socialization (see Table 1 for definitions and examples). In addition, for the reminiscence task, referencing—indication of whether parents in making reference to feelings of themselves, their children, or others—were also coded.

Table 1 Parent-Child Affect Communication Task: Functions of Utterances Containing Emotion Words

Function	Definition	Example
Commenting	Making note of someone’s feeling without further explanation, clarification, question, or discussion	“He looks happy.” “She is angry.”
Explaining	Explaining emotional causes and consequences	“He is happy because he got a gift.” “You were excited about seeing grandma.”
Clarifying	Correcting misunderstandings, providing reactions to child’s utterances, or asking for more information	“She is not angry, she is sad.” “Were you angry or sad?” “Why did you cry?”

Questioning	Asking questions about someone's feeling or emotional causes and consequences	"Is she angry?" "Do you remember a time when you were scared?"
Guiding	Attempting to redirect, stop, or guide behaviors	"Let's see if we can find happy face." "Look at her smile!" "Stop being silly."
Socializing	Instructing emotions by confirmation, disconfirmation, or denial	"It's okay to cry when you are sad." "We don't like to be scared." "It makes me sad when you are sad."
Labeling (Only for the reminiscence task)	When the emotion word is simply stated, or referred to just as a word	"This car says sad." "How do you spell happy?"

Previous research reported adequate to excellent interrater reliability for both the emotion word and function of utterances coding (Denham et al., 1997; Denham & Kochanoff, 2002). For the analyses of the present study, two trained coders, who have been trained with the PACT coding using American observation data, practiced coding some of the Japanese observational data and then their interrater reliability was evaluated. They independently coded 10 randomly selected transcripts of the reminiscence task for the interrater reliability analysis. The intra-class correlation coefficients were ranging from .98 to 1.00 for all emotion terms, from .86 to 1.00 for function terms, and from .82 to .97 for reference terms. Any disagreements were discussed in details and resolved

before coding the rest of transcripts. Also, validity of the measure has been supported (Denham, Zoller, & Couchoud, 1994).

An advantage of this observation method is the maintenance of some degree of naturalistic conditions while controlling possible extraneous variables that might affect parent-child interactions, such as spontaneous participation of other siblings and unexpected phone calls (Parke, 1979). This method provides objective information of parental emotion teaching behaviors. Although observation methods are usually time consuming, this method requires relatively little time.

Picture Vocabulary Test-Revised (PVT-R).

The PVT-R (Ueno, Nagoshi, & Konuki, 2008) is the Japanese version of the Peabody Picture Vocabulary Test (Dunn & Dunn, 2007) designed to measure children's verbal ability by asking children to point to an appropriate picture that shows the target word. The stimulus book contains a set of four pictures in each page. An experimenter asked children, "Can you show me [target word]?" and children pointed to a picture that they thought it represents the target word. The total number of target words was 89 words, including nouns, verbs, and adjectives. It took about 10 to 15 minutes to administer. The PVT-R has been standardized using a national sample and published (Ueno et al., 2008). Nagoshi (2008) reported that the PVT-R score was highly correlated with the Verbal IQ and Verbal Comprehension scores of the Japanese version of WISC-III (Japanese WISC-III Publication Committee, 1998).

CHAPTER THREE: RESULTS

Descriptive Data

In the present study, several aggregates for the AKT scores and PACT codes were created for the following analyses. For the AKT, there were three aggregates: emotion recognition, situation knowledge, and total negative emotion knowledge. First, mean item scores for expressive recognition, receptive recognition, stereotypical situation knowledge, and non-stereotypical situation knowledge were calculated. Next, the emotion recognition aggregate was created by combining expressive and receptive recognition scores, and the situation knowledge aggregate was calculated by combining stereotypical and non-stereotypical situation knowledge scores. Finally, the total negative emotion knowledge aggregate was created by combining the negative emotion knowledge across tasks. Table 2 shows descriptive data of raw scores, although Z-scores were used to create the aggregates for analyses.

Table 2 Aggregates of the Affect Knowledge Test (Raw scores)

Aggregates	Description	Mean	SD	Range
Emotion recognition	Mean of expressive and receptive recognition scores	1.47	.31	.50 – 2.00

Situation knowledge	Mean of stereotypical and non-stereotypical situation knowledge scores	1.64	.31	.81 – 2.00
Total negative emotion knowledge	Mean of negative emotion knowledge across all tasks	1.53	.31	.71 – 2.00

For the PACT, three aggregates for emotion words (total, total positive, total negative) and six aggregates for function of emotion words (commenting, explaining, clarifying, questioning, guiding, and socializing function) were created for each book reading and reminiscence task (see Table 3 and 4 for more details). Additionally, for each task, there are six aggregates for selected functions of positive and negative words (positive explaining, positive clarifying, positive socialization, negative explaining, negative clarifying, negative socialization). For only reminiscence task, aggregates of labeling and reference to self, child, and other were also created.

Table 3 Descriptive Statistics of Maternal Emotion Words

Task	Variables	Mean	SD	Min	Max
	Total words	262.37	61.50	99	401
Book reading	Total emotion words	17.16	6.52	3	35
	Total emotion words (%) [Proportion of emotion words to total words]	6.64	2.41	1.84	14.51

Reminiscence	Total positive emotion words (%) [Proportion of positive emotion words to total emotion words]	7.98	7.49	0.00	31.82
	Total negative emotion words (%) [Proportion of negative emotion words to total emotion words]	92.02	7.49	68.18	100.00
	Total words	485.84	98.88	303	739
	Total emotion words	76.75	27.27	33	184
	Total emotion words (%) [Proportion of emotion words to total words]	16.08	5.20	6.92	28.27
	Total positive emotion words (%) [Proportion of positive emotion words to total emotion words]	25.93	9.28	6.06	50.54
	Total negative emotion words (%) [Proportion of negative emotion words to total emotion words divided by 3]	24.69	3.09	16.49	31.31

Note. Because the reminiscence task asked participants to talk about memories of three negative emotions and one positive emotion, proportion of negative emotion words to total emotion words was divided by three to balance the distributions.

Table 4 Descriptive Statistics of PACT Variables

Aggregates	Description	Mean	SD	Min	Max
Book reading					
Commenting (%)	Proportion of commenting to all functions	28.31	16.49	0.00	100.00
Explaining (%)	Proportion of explaining to all functions	49.23	18.40	0.00	90.91
Questioning (%)	Proportion of questioning to all functions	15.17	10.94	0.00	44.44
Positive Explaining (%)	Proportion of explaining for positive words to all functions for positive words	31.21	41.83	0.00	100.00

Negative Explaining (%)	Proportion of explaining for negative words to all functions for negative words	49.55	18.47	0.00	90.91
Reminiscence					
Commenting (%)	Proportion of commenting to all functions	8.78	4.88	0.00	21.57
Explaining (%)	Proportion of explaining to all functions	23.97	5.83	14.00	38.75
Clarifying (%)	Proportion of clarifying to all functions	9.14	4.74	1.54	22.48
Questioning (%)	Proportion of questioning to all functions	44.48	9.01	23.71	58.26
Labeling (%)	Proportion of labeling to all functions	12.30	10.54	0.00	40.26
Positive Explaining (%)	Proportion of explaining for positive words to all functions for positive words	28.48	9.65	11.36	62.50
Negative Explaining (%)	Proportion of explaining for negative words to all functions for negative words	22.57	6.71	5.71	39.22
Negative Clarifying (%)	Proportion of clarifying for negative words to all functions for negative words	10.52	5.53	1.75	24.24
Reference to self (%)	Proportion of reference to self to all reference	15.23	9.78	0.00	42.42
Reference to child (%)	Proportion of reference to child to all reference	60.32	14.07	12.50	85.71
Reference to other (%)	Proportion of reference to other to all reference	7.80	5.73	0.00	23.64

First of all, descriptive statistics showed there were no extreme outlier or missing data that could be problematic for the following analyses. For the PACT aggregates, there were several very infrequent parental teaching techniques (i.e., used less than 5%), which were skewed or/and kurtotic (see Table 5). Those variables were included in initial analyses for the problem questions examining descriptive nature of the data and eliminated from the further analyses.

Table 5 Descriptive Statistics of Variables Eliminated from Further Analyses

Aggregates	Mean	SD	Min	Max	Skewness	Kurtosis
Book reading						
Clarify (%)	3.76	5.36	0.00	17.86	1.17	0.15
Guide (%)	3.13	5.10	0.00	22.22	2.09	4.76
Socialization (%)	0.40	1.90	0.00	12.50	5.69	34.82
Positive Clarifying (%)	2.35	14.23	0.00	100.00	6.77	46.94
Positive Socialization (%)	2.94	15.53	0.00	100.00	5.65	33.12
Negative Clarifying (%)	3.66	5.40	0.00	19.23	1.27	0.56
Negative Socialization (%)	0.09	0.64	0.00	4.55	7.14	51.00
Reminiscence						
Guide (%)	0.43	0.85	0.00	5.10	3.65	17.97
Socialization (%)	0.90	1.71	0.00	7.96	2.42	6.30
Positive Clarifying (%)	4.31	4.78	0.00	16.67	0.87	-0.26
Positive Socialization (%)	0.98	2.84	0.00	16.36	4.01	18.27
Negative Socialization (%)	0.74	1.55	0.00	7.89	2.70	8.54

Japanese Mothers' Emotion Teaching

Reference of emotion

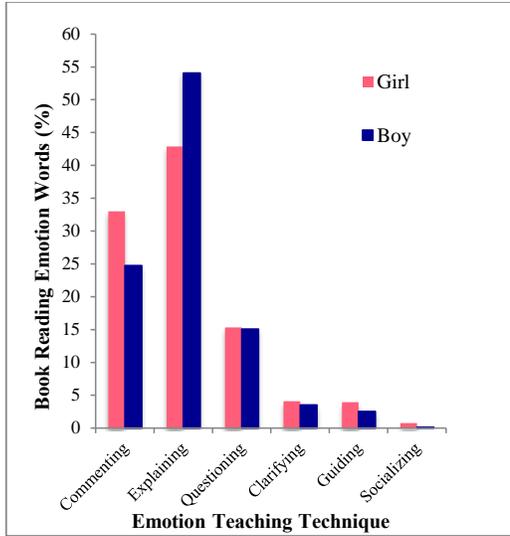
To find out whose feelings Japanese mothers refer most often in reminiscence, a within-subject ANCOVA was conducted with person referred to (self, child, other) as the within-subject factor on parents' reference to emotion words in reminiscence task with age, gender, and verbal ability as covariates. Mauchly's test indicated that the assumption of sphericity had been violated for the main effect of parents' reference, $\chi^2(2) = 21.85, p < .001$. Therefore, degree of freedom was corrected using Greenhouse-Geisser estimates of sphericity, $\epsilon = .73$. The results showed that there was a significant main effect of parents' reference to emotion words, $F(1.45, 68.21) = 8.94, p < .01$. That is, the frequency of reference used in reminiscence task was significantly different among self, child and other. The post-hoc results revealed that mother referred their child most often ($M = 60.31$), and the second most frequent reference was reference to mothers themselves ($M = 15.23$). Contrary to the hypothesis, Japanese mothers made reference to others' feelings least ($M = 7.80$).

Emotion teaching technique usage

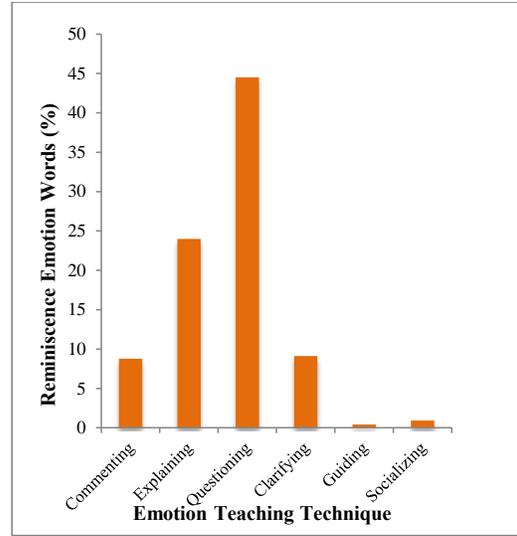
To examine which emotion teaching technique Japanese mothers use most in book reading and reminiscence, within-subject ANCOVAs were conducted with type of function (commenting, explaining, clarifying, questioning, guiding, socializing) as the within-subject factor on parents' usage of emotion teaching techniques in each task, with age, gender, and verbal ability as covariates. For book reading, first, the initial analysis was performed with all function variables. Mauchly's test indicated that the assumption of sphericity had been violated for the main effect of parents' reference, $\chi^2(14) = 233.01, p <$

.001. Therefore, degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity, $\epsilon = .41$. The results showed that there was no significant main effect of type of function, $F(2.03, 95.58) = 1.77, p > .05$; however, there was significant interaction effect of function and child's gender, $F(2.03, 95.58) = 3.08, p = .05$. As shown in Figure 1a, Explaining was the emotion teaching technique used most frequently for both girls and boys, but mothers explained emotions to boys more often ($M = 54.06$) than girls ($M = 42.87$). Commenting was the second most frequent maternal teaching technique for book reading, and mothers commented more to girls ($M = 33.02$) than boys ($M = 24.74$). Next, the analysis was run again without very infrequent teaching techniques (less than 5% frequency, skewed and/or kurtotic), including clarifying, guiding, and socializing. The results remained the same as the initial analysis: no significant main effect of type of function, $F(1.66, 77.98) = 0.04, p > .05$, but significant interaction effect of function and child's gender, $F(1.67, 77.98) = 0.17, p = .05$.

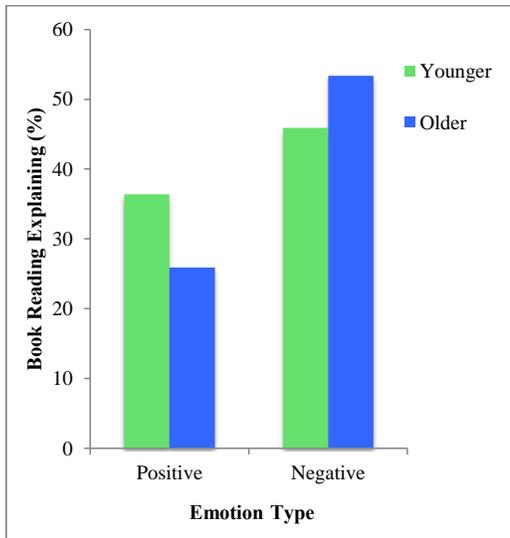
For reminiscence, the initial analysis was conducted with all function variables. Mauchly's test indicated that the assumption of sphericity had been violated for the main effect of parents' reference, $\chi^2(14) = 160.61, p < .001$. Therefore, degree of freedom was corrected using Greenhouse-Geisser estimates of sphericity, $\epsilon = .46$. There was significant main effect of function, $F(2.28, 107.32) = 8.78, p < .001$. As shown in Figure 1b, questioning was the most frequently used technique in reminiscence ($M = 44.48$), followed by explaining ($M = 23.97$). Next, the analysis was rerun without very infrequent teaching techniques (i.e., guiding and socializing), and the results remained the same. There was significant main effect of function, $F(2.02, 94.86) = 6.45, p < .001$.



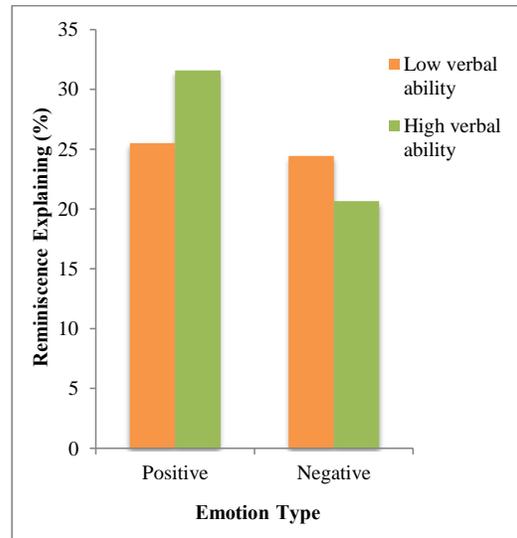
a) Book Reading Emotion Teaching Techniques X Gender



b) Reminiscence Emotion Teaching Techniques



c) Book Reading Explaining Emotion Type X Age



d) Reminiscence Explaining Emotion Type and Verbal Ability

Figure 1 Maternal emotion teaching in book reading and reminiscence

Elaborative teaching techniques for negative and positive emotions

To investigate whether Japanese parents use more elaborative teaching techniques (i.e., explaining, clarifying, socializing) for negative emotions than for positive emotions in book reading and reminiscence, within-subject ANCOVAs was performed with type and function of emotion words (positive explaining, positive clarifying, positive socialization, negative explaining, negative clarifying, negative socialization) as the within-subject factor on parents' usage of emotion teaching techniques in each task, with age, gender, and verbal ability as covariates. Because the usage of clarifying and socializing techniques for both positive and negative emotions were extremely infrequent, only the use of positive and negative explaining was used for the analyses.

For book reading, there was a significant interaction effect of emotion type and child's age, $F(1, 47) = 6.05, p < .05$. Mothers with older children used explaining for negative emotions twice as much as for positive emotions: whereas, mothers with younger children used explaining for negative emotions little more than for positive emotion (see Figure 1c).

For reminiscence, although there was no significant main effect of emotion type, $F(1, 47) = 0.48, p > .05$, there was a significant interaction effect of emotion type and child's verbal ability, $F(1, 47) = 4.66, p < .05$. As shown in Figure 1d, mothers of children with higher verbal ability explained more about positive emotions than negative emotions, whereas mothers of children with lower verbal ability explained about positive and negative emotions more or less equally.

Relations between child's age, gender, and verbal ability and parental emotion teaching technique

Correlations were performed to examine whether children's age, gender, and verbal ability are related to parental emotion teaching technique in book reading and reminiscence. Gender was coded as 0/1 (female/male). Aggregates of emotion words (total, total positive, total negative) and function of emotion words (commenting, explaining, clarifying, questioning) was used for the analyses. As shown Table 6, in book reading, there was significant negative correlation between child's age and questioning. Child's gender was significantly positively related to explaining. Also, child's verbal ability was significantly negatively correlated with maternal total emotion words.

Table 6 Zero-Order Correlation Matrix among Child's Age, Gender, and Verbal Ability and Maternal Emotion Teaching Techniques

	Age	Gender	Verbal Ability
Book reading			
Total emotion words (%)	.04	-.04	-.29*
Total positive emotion words (%)	.13	.091	-.05
Total negative emotion words (%)	-.13	-.091	.05
Commenting (%)	-.06	-.25[†]	-.03
Explaining (%)	.23	.30*	.16
Questioning (%)	-.28*	-.01	-.15
Reminiscence			
Total emotion words (%)	.10	-.15	-.08
Total positive emotion words (%)	.28*	-.02	.08

Total negative emotion words (%)	-.28*	.02	-.08
Commenting (%)	.28*	-.12	.40**
Explaining (%)	-.07	.20	.04
Questioning (%)	.03	-.15	-.16
Clarifying (%)	.06	-.13	-.10
Label (%)	-.16	-.02	.11
Reference to self (%)	.28*	.18	.02
Reference to child (%)	-.07	-.14	-.11
Reference to other (%)	.12	.17	-.09

[†] $p < .10$. * $p < .05$. ** $p < .01$.

For reminiscence, child's age was significantly positively related to maternal total positive emotion words, but negatively related to total negative emotion words. Also, there was significant positive association between child's age and commenting and between age and reference to mothers' their own feelings. Although no significant correlation was found with child's gender, verbal ability was significantly associated with commenting.

Contributions of Parental Emotion Teaching to Preschoolers' Emotion Knowledge

Relations between parental emotion teaching and emotion knowledge

Zero-order correlations was conducted among the AKT aggregates (emotion recognition, situation knowledge, total negative emotion knowledge), aggregates of parents' emotion words (total, total positive, total negative), and functions of emotion

words (commenting, explaining, clarifying, questioning) for each book reading and reminiscence task. Also, zero-order correlations between the AKT aggregates and reference to emotion status (self, child, other) in reminiscence task were performed.

As shown in Table 7, the results showed that there was a significant negative correlation between labeling and emotion recognition in reminiscence. As for situation knowledge, significant positive relation to questioning and negative relation to labeling were found. Total negative emotion knowledge was significantly positively correlated with questioning and clarifying, and negatively with labeling.

Table 7 Zero-Order Correlation Matrix among Maternal Emotion Teaching Techniques and Preschoolers' Emotion Knowledge

	Emotion Recognition	Situation Knowledge	Total Negative Emotion Knowledge
Book reading			
Total emotion words (%)	.06	-.04	.06
Total positive emotion words (%)	-.03	-.04	.03
Total negative emotion words (%)	.03	.04	-.03
Commenting (%)	-.08	-.14	-.15
Explaining (%)	.19	.16	.21
Questioning (%)	-.24[†]	-.03	-.17
Reminiscence			
Total emotion words (%)	.06	.08	.05
Total positive emotion words (%)	-.05	-.12	-.13
Total negative emotion words (%)	.05	.13	.09
Commenting (%)	.46	.64	.53
Explaining (%)	-.12	-.07	-.09

Questioning (%)	.25 [†]	.34*	.34*
Clarifying (%)	.21	.26 [†]	.32*
Label (%)	-.28*	-.40**	-.42**
Reference to self (%)	.16	.02	.07
Reference to child (%)	.11	.25 [†]	.27 [†]
Reference to others (%)	.13	.23	.20

[†] $p < .10$. * $p < .05$. ** $p < .01$.

To further examine which parental emotion teaching techniques uniquely predict Japanese preschoolers' emotion knowledge, over and above preschoolers' age, gender, and verbal ability and whether age, gender, and verbal ability moderate the relation between parental emotion teaching technique and emotion knowledge, hierarchical multiple regression analyses were performed. Following the analytic strategy used in Denham et al.'s (1997) study, only variables with significant value (p value) less than .10 found in zero-order correlations was included in the analyses, to reduce the large number of independent variables. Specifically, questioning in book reading, questioning, clarifying, and reference to child in reminiscence were used as the predictors. The hierarchical multiple regression models also examined whether the relation between those predictors and emotion knowledge (emotion recognition, situation knowledge, total negative emotion knowledge) would be moderated by child's age, gender, and verbal ability.

For these analyses, predictor variables were centered and then used to create interaction terms (i.e., questioning and age interaction term, questioning and gender interaction term, questioning and verbal ability interaction term). For the first set of

analyses investigating the unique contribution of maternal questioning in book reading and the moderation effect of age, age, gender, and verbal ability was entered in the first step as predictors, and emotion recognition was entered as an outcome. In the second step, age, gender, verbal ability, and questioning were entered. In the third step, age, gender, verbal ability, questioning, and questioning x age interaction term was entered. Then, the second set of analyses investigating the moderation effect of gender was conducted with the same procedure using gender, questioning x gender interaction term as predictor variables, following with the third set of analyses examining the moderation effect of verbal ability. The same series of steps was repeated with questioning, clarifying, and reference to child in reminiscence as predictors and emotion recognition, situation knowledge and total emotion knowledge as a target outcome.

The results showed there was no significant predictive power of questioning used in book reading on preschoolers' emotion recognition, as well as no moderation effect of child's age, gender, or verbal ability. Also, maternal questioning in reminiscence did not uniquely predict emotion recognition and there was no moderation effect of age, gender, or verbal ability. As for situation knowledge, questioning, clarifying, reference to child in reminiscence explained additional 15 % of variance in situation knowledge over and above child's age, gender, and verbal ability (see Table 8). However, there was no significant contribution of each single predictor to situation knowledge.

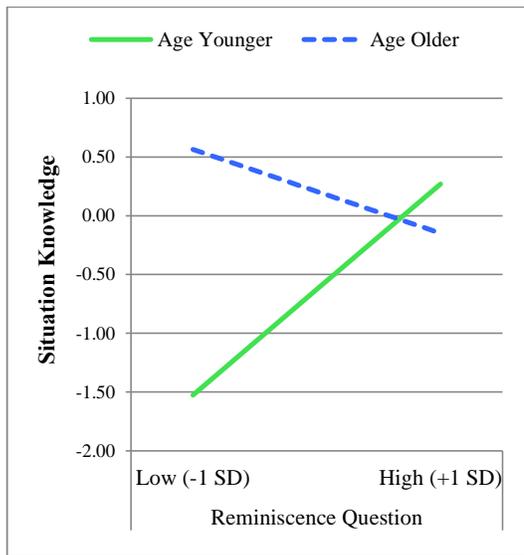
Table 8 Hierarchical Regression Analyses for Predicting Situation Knowledge from Maternal Questioning, Clarifying, and Reference to Child in Reminiscence and Interactions with Child's Age

Variable	<i>B</i>	<i>SE B</i>	β	ΔR^2	ΔF
Step 1				.19	3.50
Age	.06	.02	.43		
Gender	.22	.25	.12		
Verbal ability	-.01	.02	-.05		
Step 2				.15	3.08*
Age	.05	.02	.37		
Gender	.36	.24	.20		
Verbal ability	.01	.02	.04		
Reminiscence Questioning (%)	.03	.02	.28		
Reminiscence Clarifying (%)	.02	.03	.12		
Reminiscence Reference to child (%)	.00	.01	.06		
Step 3				.09	2.04
Age	.06	.02	.46		
Gender	.37	.24	.20		
Verbal ability	-.01	.02	-.06		
Reminiscence Questioning (%)	.03	.02	.26		
Reminiscence Clarifying (%)	.02	.03	.12		
Reminiscence Reference to child (%)	.00	.01	.06		
Questioning x Age	-.01	.00	-.33*		
Clarifying x Age	-.00	.00	-.09		
Reference to child x Age	.00	.00	.21		

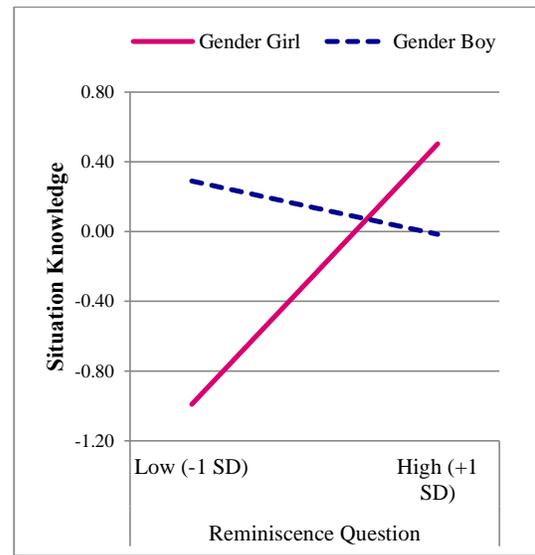
† $p < .10$ * $p < .05$. ** $p < .01$.

Moderation effects of child's age, gender, and verbal ability

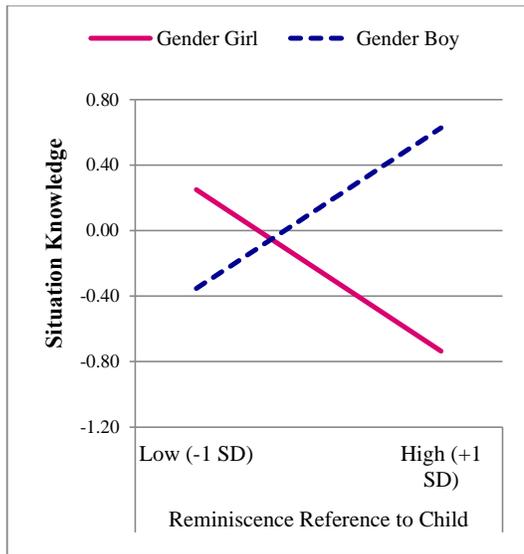
There were four moderation effects found in the present study. First, child's age moderated the relation between questioning in reminiscence and situation knowledge (see Table 8). Although the change in R^2 was not significant in step 3, the third full model remained significant in predicting situation knowledge, $F(9, 39) = 3.21, p < .01$, and the contribution of one interaction term was significant. For younger preschoolers, increasing mothers' questioning was associated with increasing situation knowledge (see Figure 2a).



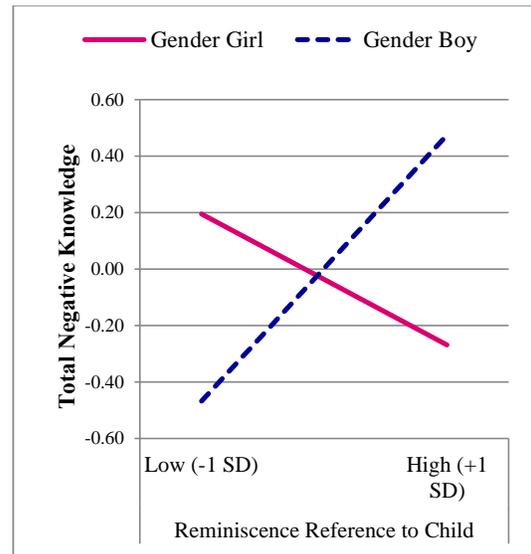
a) Questioning x Age Interaction Predicting Situation Knowledge



b) Questioning x Gender Interaction Predicting Situation Knowledge



c) Reference to Child x Gender Interaction Predicting Situation Knowledge



d) Reference to Child x Gender Interaction Predicting Total Negative Knowledge

Figure 2 Reminiscence questioning, reference to child, child's age and gender interactions predicting emotion knowledge

Table 9 Hierarchical Regression Analyses for Predicting Situation Knowledge from Maternal Questioning, Clarifying, and Reference to Child in Reminiscence and Interactions with Child's Gender

Variable	<i>B</i>	<i>SE B</i>	β	ΔR^2	ΔF
Step 1				.19	3.50
Age	.06	.02	.43		
Gender	.22	.25	.12		
Verbal ability	-.01	.02	-.05		
Step 2				.15	3.08*
Age	.05	.02	.37		
Gender	.36	.24	.20		
Verbal ability	.01	.02	.04		
Reminiscence Questioning (%)	.03	.02	.28		
Reminiscence Clarifying (%)	.02	.03	.12		
Reminiscence Reference to child (%)	.00	.01	.06		
Step 3				.15	3.77*
Age	.05	.02	.39		
Gender	.38	.22	.21		
Verbal ability	-.00	.02	-.01		
Reminiscence Questioning (%)	.09	.03	.88		
Reminiscence Clarifying (%)	.05	.03	.27		
Reminiscence Reference to child (%)	-.04	.02	-.60		
Questioning x Gender	-.10	.04	-.73*		
Clarifying x Gender	-.06	.06	-.20		
Reference to child x Gender	.07	.02	.81**		

† $p < .10$ * $p < .05$. ** $p < .01$.

Second, child's gender moderated the relation between questioning in reminiscence and situation knowledge (see Table 9). For girls, increasing mothers' questioning was associated with increasing preschoolers' situation knowledge (see Figure 2b). Third, there was a significant interaction effect between reference to child and child's gender on situation knowledge (see Table 9). For boys, mothers' reference to child was positively related to preschoolers' situation knowledge. On the other hand, for girls, mothers' reference to child was negatively related to preschoolers' situation knowledge (see Figure 2c). Lastly, child's gender moderated the relation between reference to child and total negative emotion knowledge (see Table 10). The third model was significant predicting total negative emotion knowledge, $F(9, 41) = 2.91, p < .01$. For boys, increasing reference to child was associated with increasing negative emotion knowledge. For girls, the relation was opposite (see Figure 2d).

Table 10 Hierarchical Regression Analyses for Predicting Total Negative Emotion Knowledge from Maternal Questioning, Clarifying, and Reference to Child in Reminiscence and Interactions with Child's Gender

Variable	<i>B</i>	<i>SE B</i>	β	ΔR^2	ΔF
Step 1				.19	3.56
Age	.05	.02	.49		
Gender	-.07	.21	-.05		
Verbal ability	-.01	.02	-.13		
Step 2				.12	2.59 [†]
Age	.05	.02	.42		
Gender	.04	.20	.02		
Verbal ability	-.00	.01	-.04		
Reminiscence Questioning (%)	.02	.02	.17		
Reminiscence Clarifying (%)	.03	.02	.16		
Reminiscence Reference to child (%)	.01	.01	.09		
Step 3				.08	1.85
Age	.05	.02	.44		
Gender	.04	.20	.02		
Verbal ability	-.01	.01	-.09		
Reminiscence Questioning (%)	.05	.03	.53		
Reminiscence Clarifying (%)	.06	.03	.34		
Reminiscence Reference to child (%)	-.02	.02	-.40		
Questioning x Gender	-.05	.03	-.41		
Clarifying x Gender	-.06	.05	-.26		
Reference to child x Gender	.05	.02	.62*		

[†] $p < .10$ * $p < .05$.

CHAPTER FOUR: DISCUSSION

The present study investigated how Japanese mothers teach their children about emotions in book reading and reminiscence of emotional experience, and whether there are any relations between maternal emotion teaching and Japanese preschoolers' emotion knowledge. The moderation effects of preschoolers' age, gender, and verbal ability on the teaching techniques and the relations between emotional teaching and emotion knowledge were also examined. Overall, the present study revealed that emotion teaching techniques that Japanese mothers used frequently differed between book reading and reminiscence, suggesting that the two contexts may offer different functions as emotion socialization. The present study also demonstrated that maternal emotion teaching was related to Japanese preschoolers' emotion knowledge. Specifically, in reminiscence, the use of questioning and clarifying techniques and reference to child's emotions contributed to acquisition of emotion knowledge. In the following paragraphs, interpretations of the results will be discussed in details, along with limitations of the present study.

Japanese Mothers' Emotion Teaching in Book Reading and Reminiscence

Reference of emotion.

The results showed that Japanese mothers made reference to child's feelings most often among the three references. Reference to others' feeling was actually least

mentioned in reminiscence. The findings suggest that Japanese mothers tended to place children as the focal person of their conversations. Mothers may have intended to encourage children to remember and talk about their own emotional experience, because it might be easier for children to relate emotion terms to their own experiences than their mother's experiences. It is also possible that drawing attention to child's feelings was a strategy to keep the conversation going. Given that preschoolers have short attention spans and are easy to get distracted by environmental stimuli (Ruff & Capozzoli, 2003), 10-minute reminiscence task was pretty long for the Japanese preschoolers to sustain attention and be engaged in the conversation with mothers. Some children became bored with the conversation and asked their mothers "Are we done yet?" in the middle of the task. Others were running around or jumping in the playroom. Mothers of those children may be likely to make reference to child's feeling to bring children's attention back to the task. Talking about child's emotional experience requires children to access their memory and describe the emotional events, which kept most children engaged in the task. Also, it was probably more interesting for them to talk about their own story than listening to others.

Another possibility is that the instruction of the reminiscence task may have limited the conversation on others' feelings. Mothers were asked to talk about memories of either mother or child's own emotional experience or mother and child's shared emotional experience. Many mothers may have tried to follow the instruction and did not talk about others' feelings. Additionally, Wang (2001) reported that Chinese parents tended to make reference to others' feelings more often than American parents in

reminiscence. When they talk about emotional experiences in which children's emotions were caused by or shared with others, they often try to reestablish harmonious relationships between the child and the person or teach children culturally appropriate behaviors and moral lessons. The author suggested that Chinese mothers believe that children's emotional experiences are consequence of social interactions, and therefore culturally proper emotion reactions and behaviors need to be taught and reinforced to help children to fit in a group they belong to. In contrast, American mothers believe that children's emotion represents an essential part of self, and therefore need to be explained in detail with elaboration to foster children's emotion knowledge and expression of individuality. If there had been a cultural comparison group in the present study, Japanese mothers may have shown the similar tendency of Chinese mothers. It would be interesting to investigate such tendency exists among Japanese parents in future research.

Emotion teaching technique usage

In book reading, the use of emotion teaching techniques was not significantly different overall. However, when taking gender into account, mothers used more commenting to girls than boys and more explaining to boys than girls in book reading. Because girls are believed to be more emotional than boys (Brody & Hall, 1993), mothers might have assumed that girls understand emotions well, so do not need much explanations of emotions compared to boys. For boys, mothers might have felt that boys need more detailed descriptions of how and why people experience emotions, not just making comments on characters' emotions and behaviors.

In reminiscence, the questioning technique was used most often. With utilizing the questioning technique, mothers can get children's attention (e.g., "Do you remember that you got scared when we went to the haunted house at the Universal Studio Japan?"), encourage children to engage in conversations (e.g., "Can you tell me why you were so scared?"), and keep the conversation ball rolling. Questioning could be also effective way to assist children to recall details of emotional events. When questioning and explaining or clarifying were used in combination, mothers may have been able to provide children hints to retrieve details of their memory, which would facilitate children to expand conversation. That is, questioning may work as scaffolding in emotion socialization during reminiscence.

Elaborative teaching techniques for negative and position emotions.

When comparing negative and positive emotions, in book reading, mothers with older children explained about negative emotions twice as much as about positive emotions. On the other hand, although mothers with younger children also explained about negative emotions more than positive emotions, the difference was not drastic compared to mothers with older children. Perhaps, mothers with older children might have felt that their children already know well about positive emotions and are ready to learn about negative emotions in details. This reasoning can be supported by that positive emotions are easier than negative emotions to be recognized and understood by preschoolers (Denham & Couchoud, 1990; Toda, 2003).

In reminiscence, mothers of children with higher verbal ability explained more about positive emotions than negative emotions, whereas mothers of children with lower

verbal ability explained about positive and negative emotions more or less equally. Because children with lower verbal ability may have not been able to describe their emotional experiences as much as they wanted, their mothers may have felt the need to provide the same amount of explanations for both positive and negative emotional experiences. It is possible that, because it is easier to recall happy memories than memories associated with anger, sadness, and afraid, children with higher verbal ability kept listing their positive emotional experiences, which gave their mothers more opportunities to add their perspectives to these experiences and explain about emotions. Another possibility is that children with higher verbal ability explained about negative emotions by themselves, therefore their mothers did not need to explain about negative emotions often.

Although maternal use of explaining was investigated, due to infrequent use of clarifying and socializing, how Japanese mothers teach negative and positive emotions with clarifying and socializing techniques and possible differences in their usage could not be examined in the present study. In future studies, researchers should ask parents to read different type of picture books with no time limit and talk about a variety of emotions in reminiscence, in order to capture more frequent use of clarifying and socializing.

Relations between child's age, gender, and verbal ability and parental emotion teaching technique.

The results indicate that child's age was negatively related to maternal questioning in book reading. In other words, mothers with younger children were more likely to use questioning when reading a picture book. Asking questions to child might

help children to be more attentive and engaged in the story. The present study also revealed that child's verbal ability was negatively related to maternal total emotion words. Mothers of children with lower verbal ability tended to use more emotion words in book reading, compared to mothers of children with higher verbal ability. Perhaps, those mothers aimed to promote children's learning of emotion words by using emotion words often.

In reminiscence, child's age was positively related to maternal total positive emotion words; whereas child's age was negatively associated with maternal total negative emotion words. It is possible that older children were more likely to talk about negative emotions, which led less utterance by parents. Also, child's age was positively related to commenting. One explanation for the finding is that older children might be able to talk more about causes and consequences of emotions than younger children, so parents might simply need to confirm what children explained. On the other hand, mothers of younger children feel the need of giving more explanations to their children. Additionally, there was a positive association between child's age and reference to mother's own emotions. The older children are, the more mothers talked about their own emotions. This finding suggests mothers tend to start sharing their own experience with their children more often as child mature. They might feel like that older children are ready to listen others' stories and can take turns in conversations. It was noticeable that some older children asked about mother's emotional experience, whereas some younger children were engrossed in telling their stories and did not care about mother's stories.

Role of book reading and reminiscence as emotion socialization

Mothers may see book reading as an emotion teaching opportunity and actively explain about emotions and corresponding behaviors, especially negative ones. On the other hand, children take a passive role as a listener in the task. Depending on children's age, gender, and verbal ability, mothers change how many emotion words they talk about and what teaching techniques they use.

In reminiscence, mothers tend to place children as a focal person of conversations by asking questions and talking about children's experience more often than their own. Like a storyteller, children take an active role in the task. As if mothers are a guide or discussion leader, they provide a conversation topic (i.e., happy, sad, angry, or afraid) to children and insert comments and questions to facilitate children's story telling. Similar to the book reading task, mothers change the amounts of emotion words and teaching techniques to meet children's need, depending on children's age, gender, and verbal ability.

Significance of the questioning technique

Perhaps, questioning plays a role of stimulant in parent-child conversation. By asking questions about characters' behaviors and emotions, parents can assign children an active role in book reading, instead of being passive by just listening to the story. In reminiscence, questioning could be seen as an effective mean of scaffolding. In future research, it would be interesting to investigate whether combining with explaining or clarifying, mothers' questioning would provide more details to children's utterances and assist children to recall more information on their emotional experience, which may lead to better understanding of emotion.

Contribution of Parental Emotion Teaching to Preschoolers' Emotion Knowledge

Relations between parental emotion teaching and emotion knowledge

Questioning in reminiscence was positively associated with situation knowledge.

That is, children whose mother used questioning frequently had higher emotion situation knowledge. By questioning to children, mothers are able to give children prompts to recall details of the situation, provide their own and others' perspectives on the situation, and correct any misunderstandings. As if pieces of a puzzle coming together, questioning help children to gather fragments of their memory.

Further analyses revealed that, although maternal questioning and clarifying technique and reference to child's feelings were not strong predictors of preschoolers' emotion knowledge, three of them together contributed to preschoolers' situation knowledge and total negative emotion knowledge. With the clarifying technique alone, mothers make correction on children's misunderstanding (e.g., "No, you were not happy. What you described was having a fun.") and give feedback to what children said (e.g., "You were sad. I see, but I was happy though."), which may give children an insight about emotions. However, with utilizing the clarifying and questioning technique together, mothers can ask for more information on children's emotional experience (e.g., "why did you feel angry?" "what did you do after you got upset?"), as well as elaborate on what children said (e.g., "You mean, you were happy because it rained a lot?"). All these actions may help children's emotional memory more specific and concrete, which may deepen their understanding of emotion-eliciting situations and negative emotions. Reecse, Haden, and Fivush's (1993) study supports the idea. Children with mothers who

elaborate on what children said by asking engaging questions, clarifying, and providing more details in mother-child conversation had better memory of past events.

Moderation effects of child's age, gender, and verbal ability.

Among preschoolers' age, gender, and verbal ability, age and gender were found to be function as moderators and influence on the relations between maternal emotion teaching techniques and preschoolers' emotion knowledge. Also, it is important to note that all moderation effects were found in reminiscence, not book reading. First, for younger preschoolers, increasing mothers' questioning was associated with increasing situation knowledge in reminiscence. One explanation for the finding is that mothers' conversation leading with frequent use of questioning may be helpful for younger preschoolers, who are more likely to be cognitively and linguistically immature than older preschoolers. Mothers' questioning may promote younger children's engagement in the conversation and assisted them to retrieve details of emotional memory, which may provide children opportunity to evaluate their emotional experience. As a result, younger children with mothers who often asked questions showed better understanding on emotion-eliciting situations.

Second, for girls, increasing mothers' questioning was associated with increasing situation knowledge. Research on gender difference in the play styles has shown that girls tend to talk more with peers and engage more in reciprocal activities than boys (Maccoby, 1998). Girls are also more likely to learn emotions through interpersonal experiences than boys (Brown & Dunn, 1996). Given those girls' tendency, emotion socialization in active conversations may be more effective for girls than boys. Maternal

questioning is likely to stimulate parent-child conversation, in which girls can take turns to talk about their emotional experience and listen to mother's experience. Such social interactions may optimize girls' emotion learning and promote acquisition of situation knowledge.

Third, child's gender moderated the relation between mothers' reference to child's feelings and preschoolers' situation knowledge and overall understanding of negative emotions. Specially, for boys, mothers' reference to child's feelings was positively related to their situation knowledge and overall understanding of negative emotions. Considering that boys are more assertive and seek for attention than girls (Maccoby & Jacklin, 1987), it is possible that boys being at the focal person of the emotional events might be helpful for learning situation knowledge. By focusing on their emotional experience and talking about their feelings, boys may be able to relate their own experience to general emotion knowledge and process information well.

In contrast, for girls, mothers' reference to child's feelings was negatively related to their situation knowledge and overall understanding of negative emotions. Because girls are in favor of reciprocal relationships (Maccoby & Jacklin, 1987; Maccoby, 1998), talking about others' feelings rather than focusing heavily on their own feelings may be an effective way to learn emotions for girls. In addition, Denham, Cook, and Zoller, (1992) found that mothers' reference to their own emotions in reminiscence was positively related to preschoolers' emotion knowledge. They suggested that, with mother's emotional experience, children can learn about emotions without being upset by talking about own emotional experience. Considering girls being more emotional (Brody

& Hall, 1993) and relationship-oriented (Chen, Cen, Li, & He, 2005), girls might have advantages in learning emotions when focusing on others' feelings. Another possibility is that mothers of girls who already have higher situation knowledge might not see the need of reference to child much, and choose to talk about their own or others' feeling to introduce children to others' perspectives.

Limitation

In addition to some limitations discussed above, there are several limitations should be acknowledged in the present study. First, the sample size of the present study was relatively small. Replication of the present study with a larger sample is needed in order to increase generalizability of findings. Second, the data on Japanese mothers' emotion teaching and preschoolers' emotion knowledge was collected at the same time point in the present study. Consequently, no causal relation can be argued with the findings.

Implications

In recent decades, various intervention programs promoting social-emotional development have been developed and found to be effective in Western cultures (e.g., Domitrovich, Greenburg, Kusche & Cortes, 2004; Webster-Stratton, Reid & Hammond, 2004). Similarly, in recent years, Japanese researchers and educators call for the need of intervention programs focusing on social-emotional learning (Aoki et al, 2008; Yamada, 2008), because of the growing epidemic of children who struggle with peer relationships and school adjustment (Fujioka, 2006; Honma, Kashiwaya, & Hanaya, 2005). Although there are several intervention programs that have been implemented in schools in Japan

(Yamada, 2008; Yamada & Kurihara, 2010), their target population is school-aged children and they do not contain parent-focus programs.

The present study demonstrated that parental emotion teaching contributes to preschoolers' emotion knowledge in Japanese culture. The findings from the present study would help researchers to develop intervention programs specifically targeting Japanese parents or adapt existing intervention programs that have been implemented in Western-cultures, such as the Incredible Years programs (Webster-Stratton et al., 2004) and Tuning in to Kids (Havighurst, Wilson, Harley, Prior, & Kehoe, 2010). In particular, the usage of questioning and clarifying techniques and reference to child's feelings in reminiscence found to be effective for promoting acquisition of emotion knowledge in Japanese preschoolers. The use of questioning may be especially effective for younger female preschoolers; whereas, reference to child might be beneficial for male preschoolers. Intervention programs teaching parents those emotion teaching techniques would be very useful supporting Japanese preschoolers' social-emotional development.

Future Directions

The present study highlighted the importance of maternal emotion teaching in preschoolers' acquisition of emotion knowledge in Japanese culture. However, compared to Western cultures and some Eastern cultures such as China, limited research has been conducted on parental emotion socialization in Japanese culture. Thus, in future research, there are various ways to explore and investigate parental emotion socialization and its relation to preschoolers' emotion knowledge in Japan. First, future research should examine which particular emotion Japanese parents emphasize in emotion teaching and

how the socialization contributes to preschoolers' understanding of the emotion. Previous study has shown that Japanese preschoolers understand anger earliest among negative emotions (Kikuchi, 2004). The author argues that understanding anger would help preschoolers to regulate the emotion, which is a critical skill to fit in a group. Similarly, given that anger is seen as a dangerous emotion for social harmony, Chinese parents talked about anger more often than sadness in reminiscence (Fivush & Wang, 2005). Japanese parents stress the importance of emotion suppression (Denham, Caal, Bassett, Benga, & Geangu, 2004), but they may pay special attention to anger among all emotions and use elaborative teaching techniques to teach anger, which may lead better understanding of anger in preschoolers.

Second, it would be beneficial to examine how parents' and preschoolers' conversation styles influence each other in parent-child conversation about emotions. Studies have shown that there are positive relations between parents' and preschoolers' conversation style. For instance, when parents used more emotion words, their children also talked about more emotion words (Leibowitz, Ramos-Marcuse, & Arsenio, 2002). Also, Wang (2001) found that children whose mother talked about causes of emotion often exhibited the same conversation style. Furthermore, mothers' questioning was associated with children's use of more emotion words, suggesting how parents talk in parent-child conversations affects children's conversation style or vice versa (Denham, Cook, & Zoller, 1992).

Third, it would be interesting to investigate cultural differences in common emotional experiences that parents and children talk about in reminiscence. In the present

study, many Japanese mothers and preschoolers talked about a child's birthday party and seeing friends or grand parents as happy experience, being scolded by mother or father as sad experience, fights with friends or siblings as angry experience, and lightning and ghosts as scary experiences. Investigating these commonly discussed causes of emotions allows researchers to learn about universal or culture-specific causes of emotions, which preschoolers experience and parents use in emotion socialization.

Fourth, more cross-cultural research would be beneficial to better understand the contribution of parental emotion teaching to preschoolers' emotion knowledge. In particular, comparison of Asian cultures may reveal small differences among those cultures. Although Japan, China, and South Korea are considered as collectivistic cultures and share common ground, there are variations among them (Daibo, 2007; Lee & Matsumoto, 2011; Wang & Maiya, 2008). For instance, Lee and Matsumoto (2011) presented Japanese and South Korean college students emotion-eliciting situations placed in either public or private setting and asked them to rate the intensity of emotions they would feel in those situations and to choose a facial expression they would display. The results showed that both Japanese and South Korean students tended to suppress emotions more in the public setting than in the private setting, but the tendency was stronger for Japanese students. Further investigation would be useful to find possible culture-specific socialization practice and development of preschoolers' emotion knowledge, as well as common tendencies.

Conclusions

Although much research in Western cultures has provided compelling evidence of the influential role of parental emotional socialization in preschoolers' emotional development, limited information is available on non-Western cultures, especially Japanese culture. The present study demonstrated that maternal emotion teaching techniques, specifically questioning, clarifying, and reference to child's feelings, predicted Japanese preschoolers' emotion knowledge and contributed to expand the area of research by adding the aspect of cultural context to emotional development literature.

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