MATERNAL EMOTIONAL EXPRESSIVENESS AND

PRESCHOOL CHILDREN'S UNDERSTANDING

OF LOVE

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HSIN-PEI LEE, B.A.

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Approved

Malinda Colwell
Chairperson of the Committee

Eric Lindsey

Alan Reifman

Accepted

John Borrelli
Dean of the Graduate School

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ABSTRACT

Maternal emotional expressiveness was examined for its associations with preschool children's understanding of love ($N = 22$). Emotional expressiveness was assessed from mothers completing the Self-Expressiveness in the Family Questionnaire and mothers being observed during drop-off and pick-up time in preschool. Results show that maternal emotional expressiveness as assessed by the questionnaire was negatively associated with children's understanding of love, whereas maternal emotional expressiveness as assessed from the observations was positively associated with children's understanding of love. Also, maternal emotional expressiveness was positively associated with boys', but negatively with girls' understanding of love. Findings are discussed in terms of extending the research foci of present studies on children's emotion understanding to include the emotion love.

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CHAPTER I

INTRODUCTION

Research has shown that children's emotion understanding is associated with

family emotional expressiveness, especially maternal emotional expressiveness (e.g.,

Cassidy, Parke, Butkovsky, & Braungart, 1992; Denham & Grout, 1992; Dunn & Brown,

1994). For example, Dunn and Brown found that negative emotional expressiveness

within the family was related to children's poorer performance on emotion understanding.

Children's emotional life comprises many emotions. However, studies on children's

emotion understanding have primarily focused on recognition of happy, sad, angry, and

afraid (e.g., Denham, 1986), neglecting other emotions commonly identified and

expressed by children. Love is one emotion that has not been examined in children's

emotion understanding research, but studies have shown that love is among the basic

emotions that can be frequently recognized in emotional experiences (Fehr & Russell,

1984). Although much research has examined the association between maternal

emotional expressiveness and children's emotion understanding, little is known about the

association between maternal emotional expressiveness and children's understanding of

love.

Parental contributions to emotional aspects of children's life are salient. For

example, Denham, Mitchell-Copeland, Strandberg, Auerbach, and Blair (1997) found

that parents' behaviors toward their children were effective predictors of children's

emotional competence and general social competence. Such behaviors, also known as

parents' socialization of emotions, include parents' emotional expressiveness, their

responsiveness to children's emotions, and their talking to/teaching children about

emotions. These emotion socialization practices are sources from which children can

learn about appropriate emotional expressiveness and emotions (Denham, 1998).

Denham et al. (1997) showed that parents who displayed emotions more positively had

children who showed more positive emotions with peers and thus were more socially

competent. Also, parents' talking to/teaching children about emotions also were linked to

children's emotion knowledge. In concurrence with Denham et al. (1997), Denham and

Kochanoff (2002) found that mothers' positive emotion displays, their reactions to

children's emotions, and helping children to learn about emotions all predicted children's

emotion knowledge. That is, maternal socialization of emotions is connected with

children's emotion understanding.

Family is the first environment where children are exposed to emotions of others.

Young children recognize different emotions and understand emotions primarily from

their family members. For example, Nixon and Watson (2001) examined relations

between children's early emotion understanding and some aspects of family experiences

including family expressiveness and marital conflicts and satisfaction of parents. Nixon

and Watson suggested that children experiencing more positive emotions at home were

less likely to see parental conflicts in an emotion interpreting task (portrayed in the

vignettes) as resulting in negative emotions. In addition, Dunn and Brown (1994)

illustrated that familial expression of negative emotions was associated with children's

lower emotion understanding, less willingness to negotiate in fights, and less role

enactment in pretend play. These studies have shown that the atmosphere within the family could influence children's individual differences in emotion understanding.

Assessments of children's understanding of emotions have primarily focused on children's recognition of basic emotions, specifically happy, sad, angry, and afraid (e.g., Denham, 1986; Denham & Couchoud, 1990a). A labeling task is one such assessment. In this task, children are introduced to four photographs and four line-drawings of faces showing the emotions of happy, sad, angry, and afraid, respectively. Children are then asked to name the feelings expressed by the faces (i.e., "How does he/she feel in this picture?") and to identify the corresponding faces nonverbally (i.e., "Show me the happy face."). The labeling task is a measure commonly used in emotion understanding research, but its focus on identifying happy, sad, angry, and afraid has excluded other emotions possibly identified and expressed by children.

Love is an important component in children's emotional life. Fehr and Russell (1984) have reported that when undergraduate students were asked to name items belonging to the category of "emotion," more than half of them nominated love. That is, love is frequently identified as a basic emotion by these undergraduate students. In addition, Bretherton and Beeghly (1982) studied the time children begin to name emotion-related words, such as hug and kiss, and found that children were able to use the word "love" when they were twenty-eight months (e.g., "I love everybody"). These findings demonstrate that love is commonly recognized as a basic emotion by adults and can be identified at least by twenty-eight-month-old young children. Despite these

findings, however, no research to date has examined children's understanding of love in emotion understanding research.

Recent research on family emotional expressiveness and its association with children's emotion understanding has extended its focus from identifying basic emotions to other emotional aspects of children's life, such as display rule knowledge (e.g., Jones, Abbey, & Cumberland, 1998) and decoding emotions (Dunsmore & Smallen, 2001). It also will be reasonable to extend the four basic emotions in emotion understanding research to include love because love has been identified as a basic emotion in many studies (e.g., Bretherton & Beeghly, 1982; Fehr & Russell, 1984; Shaver, Schwartz, Kirson, & O'Connor, 1987). Children may experience and learn about love by how family members express their emotion of love, just as they experience and learn about the emotions happiness, sadness, anger, and fear. Therefore, it appears that there is a possible linkage between family emotional expressiveness and children's love understanding. However, the association between them still remains unknown.

Children's sex has been a factor which may differentiate children's performance on emotion understanding tasks. Bosacki and Moore's (2004) study on how vocabulary ability and sex affect preschool children's understanding of emotions found that girls performed better than boys did on emotion labeling and on understanding complex emotions, such as pride and embarrassment. In addition, Bosacki and Moore's finding indicated that only boys' emotion understanding is significantly associated with language ability. Similarly, Brown and Dunn's (1996) study showed sex differences on children's continuous emotion understanding. They found that girls scored higher on understanding

of basic emotions (happy, sad, angry, and afraid) at the age of three and also scored higher on understanding of conflict emotions (two emotions of opposite valence) at the age of six. Given these findings, it is possible that sex differences also may be found in preschoolers' understanding of love.

In addition, some studies have suggested that the sex of a child plays a significant role in associations between parental socialization of emotions and children's emotion understanding. For example, Denham, Zoller, and Couchoud (1994) found that maternal negative emotional responsiveness was associated with boys', but not girls' emotion understanding. Denham et al. (1997) indicated that girls are more sensitive to parental emotional expressiveness than are boys. Although findings of parents' influences on boys and girls are not consistent, the studies above clearly showed that the extent to which children's emotional understanding is affected by parents' socialization of emotions will be influenced by children's sex. Therefore, it is likely that associations between parental emotional expressiveness and children's love understanding may differ based on children's sex.

In summary, studies have shown that parental socialization of emotion contributes to children's emotion understanding and general emotional and social competence (e.g., Denham & Grout, 1993; Denham et al., 1997). Particularly, evidence has been presented on how maternal emotional expressive is associated with children's understanding of emotion (e.g., Denham & Grout, 1992). Research on emotions from a prototype perspective suggested that love is one of the basic emotions which can be recognized commonly in emotional life (e.g., Bretherton & Beeghly, 1982; Fehr & Russell, 1984).

However, current emotion understanding research has primarily focused on the feelings of happy, sad, angry, and afraid, excluding the emotion of love. Of interest in this study is to explore the associations between maternal emotional expressiveness and preschool children's understanding of love; and at the same time, to examine whether preschool children's understanding of love is associated with their emotion understanding. In addition, it is of interest to examine whether preschool children's understanding of love will be affected by children's sex and whether associations between maternal emotional expressiveness and preschool children's understanding of love will be differentiated by children's sex.

The purpose of this study is to explore associations between maternal emotional expressiveness and preschool children's love understanding. Because research has shown associations between maternal emotional expressiveness and children's understanding of emotion, it is necessary to examine whether maternal emotional expressiveness relates to children's understanding of love. In addition, it is important to look at whether maternal emotional expressiveness is associated with children's love understanding as early as preschool age.

Four hypotheses are going to be examined. It is hypothesized: 1. Preschool children's emotion understanding will be associated with their love understanding. 2. There will be positive associations between maternal emotional expressiveness and preschool children's understanding of love. 3. Preschool girls and boys will score differently on the love understanding task. 4. The associations between maternal

emotional expressiveness and preschool children's understanding of love will differ for boys and girls.

CHAPTER II

LITERATURE REVIEW

The primary purpose of this literature review is to examine previous research that associates parental socialization of emotion, particularly maternal emotional expressiveness, with children's emotion understanding. Although love is one of the basic emotions children can recognize, it has been excluded from children's emotion understanding research and no research to date has examined how maternal emotional expressiveness relates to children's understanding of love. This review is going to extend the links between maternal emotional expressiveness and children's understanding of emotion to the unknown area of understanding of love. In addition, studies on sex differences which also influence children's performance on emotion understanding will be included. Topics to be covered in this review include emotional competence and emotion understanding research, parental contributions to children's social and emotional competence, emotional expressiveness within the family and children's emotion understanding, maternal socialization of emotion and children's emotion understanding, love as an emotion, and sex differences in emotion understanding.

Emotional Competence and Emotion Understanding Research

Emotional competence is important to children's lives because of its implication for children's social competence (Denham et al., 2003). Social competence is an index of how well children can interact with other people and of their status among peers. Such

social relations will further influence children's mental health (Gottman, Gonso, & Rasmussen, 1975). Because of the significant status of emotional competence, it is necessary to examine the constituent elements of children's emotional competence. Most studies on emotional competence include the aspects of children's ability to understand, to express, and to regulate their emotions. The focus of this paper is going to be emotion understanding, which encompasses areas of emotion labeling and emotional situation identification (Denham, 1998). In order to tap young children's ability to understand emotions, unique assessment strategies were invented, such as the use of puppets with emotion faces, picture recognition, and storytelling interviews. Assessments commonly used in emotion understanding research are summarized below.

Emotion Identification

In one commonly used emotion identification task (e.g., Denham, 1986; Denham & Couchoud, 1990a; Youngblade & Dunn, 1995), children are introduced to four line-drawings of faces showing the emotions of happy, sad, angry, and afraid. Children are asked to name the feelings of faces verbally (i.e., "How does he/she feel in this picture?") and then to find out the corresponding faces nonverbally (i.e., "Show me the happy face."). This task is designed to assess children's identification of commonly recognized emotional expressions.

Interpretation of Emotion Situations/Affective Perspective Taking

Affective perspective taking has been assessed in different ways. A common assessment uses puppets. In this task, puppets made of cloth with neutral facial expressions enact 14 vignettes which are emotion-laden stories (e.g., Denham & Couchoud, 1990b; Denham et al., 2003; Dunn et al., 1991). In eight of the vignettes, the situations are unambiguous. The puppets feel the same way most people would feel (e.g., feel happy for being given an ice cream cone, feel fear for a nightmare) (Borke, 1971; Denham, 1986). In the other vignettes, the situations are relatively equivocal (e.g., feel happy or afraid when getting into a swimming pool, feel happy or sad to go to daycare) (Denham, 1986). The puppets in these vignettes feel the opposite way that mothers have indicated the child would feel in response to a questionnaire. During these tasks, the puppeteer tells the stories with neutral facial and vocal expressions and after hearing each story, children are asked to label an appropriate emotional face (happy, sad, angry, and afraid) to the puppet in answering the question "How does the puppet feel?"

The emotion identification task is designed to assess children's ability to recognize common expressions of emotions. Affective perspective-taking measures how well children understand other people's feelings in unambiguous situations and how well they understand other people's emotions that differ from theirs in equivocal situations. Although there are many facets to emotional competence, the foci of this study will be on these two aspects of emotion understanding.

Parental Contributions to Children's Social and Emotional Competence

People such as parents, daycare providers, siblings, and playmates play an important role in young children's emotion learning because they provide young children opportunities to experience emotions. These people, called "socializers," may intentionally or unintentionally show young children the proper emotions accepted within the society (Denham, 1998) and consequently contribute to children's emotional competence, which is a good indicator of children's social competence (Denham et al., 2003; Eisenberg, Cumberland, & Spinrad, 1998). Among these people, parents have been widely recognized as primary socializers of children's emotion. Their emotional expressiveness, reactions to children's emotion, and emotion coaching are three aspects of emotion socialization primarily studied.

Recent studies have examined the impact of parental socialization of emotion on children's emotional and social competence. For example, Denham et al. (1997) examined the contributions of parental socialization of emotion to preschoolers' emotional competence and how preschoolers' social competence is influenced by parental socialization of emotion and preschoolers' emotional competence. Sixty middle class families were recruited in this study which included 60 mothers, 49 fathers, and an equal number of boys and girls. The average age of boys and girls was 49.8 months.

To examine parental modeling of emotions and children's emotions within the family setting, parent-child interactions were observed at home. During the observations, the participating parent (the father or the mother) was encouraged to do his/her own things but was asked to be in the presence of the child. The participating parent and the

child took turns as a focal target during the 5-min observational periods and the emotions of the focal target were recorded using Roberts' (1992) computer software designed to collect emotion and reaction to emotion data. Discrete emotions were coded based on the operational definitions of Denham (1986) and Denham and Grout (1992), including happy, sad, angry/tense, tender, neutral, and other emotions in the forms of facial, vocal, postural, or behavioral displays. Reactions to emotions included matching positive or negative emotions, improper emotional reaction (e.g., "smile when someone else is hurt"), hurt feelings, positive reinforcement (e.g., "touches," "praises"), negative reinforcement (e.g., "distracting," "punishment"), help or concern, looking, ignoring, and antisocial reactions (see also Denham, 1986).

Parents also completed the 40-item Parent Affect Test (PAT; Linehan, Paul, & Egan, 1983) used to assess parents' emotional experiences and parents' beliefs of their own emotional expressiveness. PAT measured parents' emotional states reacting to examples of children's positive or negative behaviors (e.g., "My child acts respectful toward me," "My child gets into some things that don't belong to him/her") and for each hypothetical example, parents rated, on a 7-point scale, six possible reacting affects (e.g., "feel angry vs. pleased," "want to yell vs. praise"). Higher scores in this test represented more positive reactions to children's behaviors.

Parental emotional language with their children was assessed via a seminaturalistic task in a parent-child dyad (see also Denham et al., 1992). The participating parent was asked to talk with the child in a natural manner about the reminiscence of four occurrences in which the parent showed four specific emotions

(happy, sad, angry, and afraid) in the presence of the child and four occurrences in which the child showed four specific emotions (happy, sad, angry, and afraid) in the presence of the parent. Parents' and children's utterances were coded for their frequency and function (see Zahn-Waxler, Ridgeway, Denham, Usher, & Cole, 1993).

To examine children's emotions and their responses to playmates' emotions, children were observed in preschool/daycare setting via computer software described above (Roberts, 1992). Twenty-four 5-min observations were acquired for each child, with half the observations as a focal child for obtaining his/her emotions and in the other half as a target child for assessing his/her reactions to peers' emotions.

Children's emotion understanding was assessed by children's ability to recognize emotions nonverbally, to label emotional expressiveness verbally, to identify unequivocally proper emotions to some situations, and to infer emotions in equivocal situations. In the assessments, puppets with detachable faces depicting emotions of happy, sad, angry, and afraid, were presented in front of children. Children were first to identify the emotions of faces (happy, sad, angry, and afraid) verbally by naming it and then nonverbally by pointing to it.

Next, in identifying unequivocally emotional situations designed to measure how well children understand others' feelings in responding to common situations (e.g., feel happy for being given an ice cream cone, feel fear for a nightmare) (Borke, 1971; Denham, 1986), the puppeteer told 8 emotion-laden stories with natural facial and vocal expressions. Children were asked to label an appropriate emotional face to the puppet after hearing each story. In an identifying equivocal emotion task designed to explore

how well children understand other people's emotions different from theirs in some situations, stories which could cause one of two feelings were told to children (e.g., feel happy or afraid when getting into a swimming pool) (Denham, 1986; Denham & Couchoud, 1990b). Before the identification task, children's mothers had completed a forced-choice questionnaire indicating how their children would respond emotionally to situations described in 12 vignettes. During the task, the puppet expressed in each vignette the opposite emotions of mothers' responses.

Last, in the open-ended assessment children were asked to identify the emotions of puppets (happy, sad, angry, and afraid) again. Children were corrected if they had wrong answers. Testers then pointed to the puppets randomly and asked children "What made the puppet feel this way?" Children were encouraged in a standard way to give elaborated answers about the causes of puppets' emotions.

For rating children's social competence, teachers/daycare providers completed two questionnaires after knowing children for at least two months. One questionnaire is the Olson Preschool Competence Questionnaire (Olson, 1984, 1989) from which Positive Peer Relations (e.g., "initiating play positively" and "responding to positive overtures"), Cooperativeness (e.g., "sharing" and "taking turns"), and Empathy (e.g., "responsiveness to peers' distress" and "laughing at humor") scales were created. The other questionnaire is the Preschool Behavior Questionnaire (PBQ; Behar & Stringfield, 1974) in which teachers/daycare providers reported on the relative frequency of children's problem behaviors.

Denham et al. (1997) found that parental socialization of emotions was a significant predictor of preschool children's emotional competence and their overall social competence. Specifically, parents who showed more positive, balanced affections (obtained from standard scores for percentage of displaying happy minus percentage of displaying angry) had more positive, balanced children; in contrast, parents with more negative displays had children with less social competence in their preschool. Parents who were able to maintain positive emotions while facing challenges had children who understood emotions better. In addition, appropriate reactions of parents to their children's emotions were associated with children's optimal functioning. However, parents' coaching about emotions in terms of total frequency of parental emotional language and children's emotional language with parents only marginally related to children's emotion knowledge. Moreover, parental emotion coaching in terms of using guiding and socializing emotion language negatively predicted children's social and emotional competence. Denham et al. suggested that the negative association may come from the bidirectional relations between parents and children. For example, children who displayed sad and afraid more often or who had more immature responses to others' emotions were more likely to induce parents' emotion coaching.

From these results, Denham et al. (1997) showed that parental socialization of emotion significantly contributed to preschool children's emotional competence and their general social competence. In supporting the associations between parental socialization of emotion and children's socioemotional competence, Denham and colleagues further suggested that more studies on parent-specific effects of emotion socialization are needed.

Some researchers who explore the possible links between parental socialization of emotion and children's social and emotional competence may focus only on one of three commonly studied pathways (emotional expressiveness, emotional reactions to children's emotions, or emotion coaching) to emotional socialization. For example, Boyum and Parke (1995) studied parental modeling of emotional expressiveness and its associations with children's social competence. Participants included 50 kindergarteners, 24 boys and 26 girls, and their parents (all Caucasian except one Black father), from varying socioeconomic backgrounds. The average age of the children was 6 years and 2 months.

Children's social competence was assessed by sociometric ratings (Asher, Singleton, Tinsley, & Hymel, 1979) in which children's classroom peers indicated how they liked to play with the participating child by putting his/her picture into one of three cans representing "like a whole lot" (with a smile face on the can), "like a little bit" (with a neutral face), or "not like at all" (with a frown face). Teachers also completed questionnaires that rated how much the child was liked, not liked, prosocial (e.g., good at helping), verbally aggressive (e.g., says mean things), physically aggressive (e.g., hits), and avoidant (e.g., plays alone) on a 5-point Likert-type scale (Cassidy & Asher, 1992).

Affective expressions of children and their parents (additional members if possible) were videotaped during their dinner time at home in the absence of observers (see also Lewis & Feiring, 1982; Vuchinich, 1987). Parents then completed several questionnaires independently. The Dinner Questionnaire was used to collect information about their frequency to have dinner together, where and how long the dinner was, and representative dinner-related rules and activities. Another questionnaire was used to rate

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on a 5-point Likert-type scale, "how representative the videotaped dinner was of a typical dinner" and "how family members were affected by the observation." The other questionnaire was the Halberstadt Family Expressiveness Questionnaire (FEQ; Halberstadt, 1986), containing 40 items with a 9-point scale, on which each parent rated the frequency they expressed emotion in different situations. Parents also answered additional questions about the intensity and clarity of their expressed emotions.

From their study, Boyum and Parke (1995) found that children who were more socially competent had fathers who rated themselves as expressing more positive and total emotions. Also, children whose parents were higher in both positive and total emotional expressiveness were rated by teachers as more favorable. Another example is Denham's (1993) study to examine how maternal emotional responsiveness to children's emotions was related to toddlers' social-emotional competence, with a sample of 28 mother-child Caucasian dyads from middle socioeconomic families. The average age of the children (14 boys, 14 girls) was 31.6 months.

To observe maternal and children's emotions, onsets and offsets of emotions (including happy, sad, angry, tense/afraid, tender, neutral and "other" emotions) via facial, vocal, or behavioral displays were recorded using an exhaustive and mutually exclusive system. Children's social-emotional competence was assessed by a social-emotional profile scoring system (Lewis & Michalson, 1983) in which observers rated videotapes of toddlers' interactions with others (the stranger, siblings, or child psychiatrist) in mothers' absence. According to the social-emotional profile scoring system, the observers coded

the occurrence of Lewis and Michalson's specific facial, vocal, bodily or behavioral indices of happiness, competence, fear, anger, and positive/negative social affiliation.

The results from Denham's (1993) study showed that the patterns of maternal affective responsiveness to toddlers' specific emotions were related to their social-emotional competence. Specifically, optimal responses of mothers to their children's anger and fear positively predicted children's better social and emotional functioning. Thus, Denham suggested that maternal responsiveness to attenuate children's concurrent negative emotions was associated with children's far-reaching social-emotional competence.

Research examining the field of parental emotion socialization also relates it to a more specific part of children's emotional competence, namely children's emotion understanding. For example, Denham and Kochanoff (2002) studied how parental socialization of emotion contributes to children's emotion understanding when they were 3, 4, and 5 years old in a multi-setting and multi-method design. The sample included 134 children (69 boys, 65 girls) from middle income families, and the mean age at first observation in preschool settings was 46 months. These children were predominantly Caucasian.

To collect information about emotion socialization, both observational and self-report measures were used for each aspect of parental socialization of emotion. For parental emotional expressiveness, parents' emotions and their reactions to children's emotions were observed at home. The operational definitions of emotions (Denham, 1993, 1998; Denham & Grout, 1993) and how they were coded using observational software

(Roberts, 1993) were the same as previously described in the summary of Denham et al. (1997). Parents also completed the Self-Expressiveness in the Family Questionnaire (SEFQ; Halberstadt, Cassidy, Stifter, Parke, & Fox, 1995; see also Halberstadt, 1986) in which each parent reported on 40 items, with a 1-to 9-point scale, how frequently their own positive and negative emotions were expressed within their current family setting (e.g., "Telling family members how happy you are" and "Blaming one another for family troubles"). Parents also completed the Parent Affect Test (PAT; Linehan et al., 1983), which was described earlier.

For parental contingency/responses to children's emotions, the observational technique used was described earlier in Denham et al. (1997). The Coping with Children's Negative Emotions Scale (CCNES; Fabes, Eisenberg, & Bernzweig, 1990) also was administered to each parent, in which parents rated how likely they would use emotion- or problem-focused coping, punitive, minimizing, encouraging, or distress responses to their children's negative emotions in specific situations. An example is: "If my child becomes angry because he/she is sick or hurt and can't go to his/her friend's birthday party," the parent could respond: (a) "send my child to his/her room (punitive), (b) get angry at my child (distress), (c) help my child think about ways to still be friends (problem-focused coping), (d) tell my child not to make a big deal over it (minimizing), (e) encourage my child to express his/her feelings (encouraging feelings), or (f) soothe my child (emotion-focused coping)."

For parental coaching/language about emotions, a semi-naturalistic task was given to the parent-child dyad as in Denham et al. (1997). In order to tap parents' conception of

their own coaching and their attitudes toward emotion coaching as a task of parenting, parents were asked to complete the Parent Disciplinary Styles measure (PDS; Hart, DeWolf, Wozniak, & Burts, 1992). Parents gave their possible responses to six open-ended disciplinary situations in PDS, capturing varying degrees of parenting styles regarding power assertion-induction continuum (e.g., "I would ask my child, 'How do you think your friend would feel if you called him a name like that?'").

To assess children's emotion understanding, the Affect Knowledge Test (AKT) was used when children were 3 and 4 years old. The details of the measurements in AKT are previously described in Denham et al. (1997). Another two tasks were given to children when they were in kindergarten. One was the KAT-Mixed Emotions test which was adapted from Gordis, Rosen, and Grand (1989). In this measure, children were told eight stories with pictures presented in which the character felt two emotions (e.g., "happy and sad that school is over for summer") and children were asked to give explanations for the existence of the two specified emotions in each story. The other task was to measure children's knowledge about display rules, in which six stories selected from Gross and Harris (1988) were told with no pictures being shown and procedures in accord with Gross and Harris's were followed. The character in each story experienced a feeling that they should either show or hide. For example, in one of three discrepant feeling stories, the character should hide his sadness when his brother was teasing him because if he did not, his brother would continue the teasing; in one of three nondiscrepant feeling stories, the character should show her sadness because she was lost and needed help.

Denham and Kochanoff (2002) found that mothers' positive emotional expressiveness, their attentiveness to children's emotions, their willingness to help children talk about distress by letting the feeling out, finding ways to deal with the feelings, and solving the problems all predicted children's better emotional knowledge at the age of 3 and 4. In addition, children who performed better on the task of mixed emotions at age 5 had mothers who had more positive emotions and reactions to children's emotions when children were 4 years old. Also, mothers' positive attitudes toward helping their children to learn about emotions most strongly predicted children's emotion knowledge at the age of 3. Overall, these findings supported the notion that maternal socialization of emotion was associated with children's understanding of emotion.

In contrast, the associations between paternal emotional socialization and children's emotion knowledge were relatively marginal. Paternal socialization of emotion merely predicted children's emotion understanding at the age of 4. Denham and Kochanoff (2002) suggested that fathers' influences on their children's emotion knowledge might be indirect rather than direct by their supporting of mothers' emotional socialization, which was validated from the strong correlations between paternal and maternal socialization of emotion variables. Also, fathers' role in the family is likely to be different from mothers in that fathers are viewed as playmates to children compared to mothers viewed as teachers.

Studies discussed above all show that parental socialization of emotion has a great impact on a child's social and emotional life. For children, parents are experts at

emotional competence (Denham & Grout, 1993; Denham et al., 1997) and they also are

primary role models from whom children learn emotions. Parents' modeling of emotional

expressiveness in everyday life may gradually be generalized into children's own

expressive patterns and may indicate appropriate emotions within varying contexts.

Therefore, it is necessary to look more closely at the connections between emotional

expressiveness within the family context and children's emotion understanding.

Emotional Expressiveness within the Family and
Children's Emotion Understanding

Family is the first environment where children interact with people. Emotional

expressiveness in the family not only is important to children's construct schemas of the

world of self and others (Dunsmore & Halberstadt, 1997), but also is a primary source

from which children experience and understand emotions. Studies have explored the links

between family emotional expressiveness and children's emotional life. For example,

Dunn and Brown (1994) examined the association between emotional expressiveness

within the family and children's emotion and social understanding. The study included 50

second-born children with their mothers and older siblings from a wide range of

socioeconomic backgrounds. The sample included 22 boys (8 with older brothers, 14

with older sisters) and 16 girls (7 with older brothers, 9 with older sisters). The mean age

difference between siblings was 41.4 months.

Two observations of 1 hour and 15 min each were carried out in home visits when

children were age 33 months (Time 1). The observations of family members' emotions

were unstructured and recorded with a portable audiotape recorder and paper-and-pencil

recording method based on a Clarke-Stewart system (1973; see Dunn, Brown, Slomkowski, Tesla, Youngblade, 1991). Children's emotion understanding was assessed via two tasks (Denham, 1986; see also Dunn et al., 1991) at the age of 40 months (Time 2). In one task, children were asked to identify four faces depicting the emotions of happy, sad, angry, and afraid, verbally and receptively. In a second task, after the puppet enacted 16 emotion-inducing stories with the puppeteer's neutral voice, children were asked to identify "How does the puppet feel?"

Dunn and Brown's (1992) findings demonstrated the importance of the general expression of negative emotion within the family. They found that the frequency of angry and distressed displays within the family when children were 33 months of age predicted children's poorer performances on emotion-understanding tasks 7 months later.

Cassidy et al. (1992) also examined emotional expressiveness within the family context, its relations to children's peer relations, and how the relations were mediated by children's emotion understanding. Participants were 61 (28 boys, 33 girls) white, kindergarten and first-grade children from middle class families. Fifty-six mothers and 43 fathers also participated in the study (41 families had both parents participate).

Children's peer acceptance was measured by sociometric rating scale (Singleton & Asher, 1977) in which each child was rated by his/her classmates on a 5-point scale, indicating how much they liked to play with the child. Classmates were presented with five faces with expressions ranging from a large frown (1) to neutral (3) to a large smile (5) in response to the statement "Point to the face that shows how much you like to play with this child" (with the child's photograph). Fathers and mothers independently

completed the Family Expressiveness Questionnaire (FEQ; Halberstadt, 1986) to indicate their emotional expressiveness at home. Parental and children's emotional expressiveness also were observed during the game "Beat the Buzzer" designed to elicit both positive and negative emotions. Each child had an interview which was used to assess children's emotion understanding. In the interview, children were shown four pictures depicting the emotions of happy, sad, angry, and afraid. Children were asked 15 questions and for each question they chose a corresponding face.

Cassidy et al. (1992) found linkages between emotional expressiveness within the family context and children's peer relations. Mothers who were more emotionally expressive at home and fathers who were more emotionally expressive both at home and in laboratory had more socially competent children. Children's emotion understanding also was found to be associated with children's peer relations. However, children's emotion understanding was not associated with family emotional expressiveness.

A possible explanation for the different results between Cassidy et al. (1992) and Dunn and Brown (1992) could be found in their different methodologies. In Dunn and Brown's study, the measurement lag between family emotional expressiveness (assessed when children were 33 months) and children's emotion understanding (assessed when children were 40 months) may be more likely to capture significant associations between family expressiveness and children's understanding of emotion. On the contrary, the concurrent measures of family emotional expressiveness and children emotion understanding in Cassidy et al. (1992) may not show the true effects of family emotional expressiveness on children's emotion knowledge.

In addition, the study of Denham et al. (1997) described earlier showed that parents able to maintain positive emotions when facing challenges had children who were better at emotion understanding. From Halberstadt, Crisp, and Eaton's (1999) review of literature, they also found that positive emotional expressiveness within the family context is positively associated with children's emotion understanding. However, negative emotional expressiveness is found to be associated with children's better emotion understanding in some studies, but poorer emotion understanding in others. Therefore, associations between negative family expressiveness and children's emotion understanding may be obscure.

The studies previously discussed demonstrate the associations between positive and negative affective expressiveness within family setting and children's emotion understanding. Because mothers are recognized as primary caregivers of young children, it is important to examine specifically how mothers' emotion socialization, particularly maternal emotional expressiveness, affects individual differences in children's understanding of emotion.

<div align="center">Maternal Socialization of Emotion</div>

Because mothers are widely recognized as primary caregivers of young children and they spend the most time with children, some studies investigating parents' influences on their children's emotional competence focus solely on the role of mothers. For example, Denham and Grout (1993) studied the associations between maternal socialization of emotion and preschoolers' social and emotional competence. Participants

were 47 preschool children (22 boys, 25 girls), with an average age of 44.30 months, from a larger longitudinal study (e.g., Denham & Grout, 1992; Denham et al., 1990). These preschoolers (all but four were Caucasian) and their mothers were of middle class socioeconomic status.

Mothers' and children's onsets and offsets of emotional displays were videotaped continuously during their interactions (mean time was 103 minutes) via an exhaustive and mutually exclusive system (see Denham, 1989, 1993) in the laboratory. Facial, vocal, and behavioral expressiveness of happy, sad, angry, tense/afraid, tender, neutral, or other emotions were recorded. During the interactions, event lag sequential Zs were obtained from each dyad members' emotions. The Zs were used to examine whether one target person's emotional expression followed the other's emotional expression at a probability significantly greater than chance (Sackett, 1979, 1987). At home, mothers completed the Differential Emotions Scale (DES; Izard, Dougherty, Bloxom, & Kotsch, 1974), which is used to measure mothers' typical or "trait" emotional patterns. Mothers indicated in DES, on 1- to 5-point scale, how often they have the feelings of interest, enjoyment, surprise, sadness, anger, disgust, contempt, fear, shame/shyness, and guilt (three descriptive items for each feeling).

Children's emotion displays in their preschool setting were observed for several 5-minitue periods with a mean total of 37.80 minutes. Emotion displays, defined in the same way as those in mother-child interactions, were recorded by focal event sampling during play (Denham, 1986; Denham et al., 1990; Strayer, 1980). Children's reactions to emotions in the preschool setting also were observed. After the focal child displayed an

emotion, observers scanned target peers, from left to right within 3 feet of the focal child, and coded their reactions to the focal child's emotion. Observers, after completing the scan, went back to observe the focal child to see if he/she displayed the same, new, or no emotion. In total, children were observed as target peers for an average of 78.68 minutes in the presence of focal children.

To measure children's social competence, teachers completed the Baumrind Preschool Behavior Q-Sort (BPB; Baumrind, 1968, 1971) in which teachers sorted 72 cards with children's social behavioral descriptions into nine piles, indicating how well each statement describes the child (friendliness, cooperativeness, and tractability were used in this study). Teachers also completed the Behar Problem Behavior Questionnaire (PBQ; Behar & Stringfield, 1974) as described previously.

Denham and Grout (1993) found that maternal socialization of emotion measured by maternal expressiveness, their reactions to preschool children's emotions, and the self report of affective environment predicted preschool children's emotional competence in interaction with mothers and peers. Specifically, maternal self reports and maternal contingent responses to children's emotional displays were two particularly significant predictors of children's emotional competence in the preschool setting. Thus, Denham and Grout suggested that self-report measures which index a wider range of emotionality may have more value in looking for cross-situational associations than observed context-specific emotion displays. Also, maternal reactions to children's emotional display during mother-child interactions could be good models for children, from which children's

emotional expressiveness and their prosocial reactions to peers' emotions were generalized.

In addition, Denham and Grout (1993) found that mothers exhibiting a higher level of externalizing emotions (the sum of anger, scorn, and disgusts items) or positive emotions (the sum of happiness and interest items) in the self report had children who showed greater overall emotionality in the preschool setting. Specifically, children of externalizing mothers were less likely to have affectively positive interactions in the preschool setting; however, they were more likely to act prosocially in response to peers' emotions. In contrast, mothers' internalizing emotions (the sum of sadness, guilt, shyness, and fear items) were not related to children's emotional competence. Denham and Grout suggested that it could be more difficult for young children to recognize less obvious emotions such as guilt and shyness.

Overall, the results of Denham and Grout (1993) showed that maternal emotion socialization was associated with children's emotional competence in terms of their patterns of emotional expressiveness and their reactions to playmates' emotions and with children's general social competence which was measured by teachers' completing the questionnaire.

The study of Denham and Kochanoff (2002) described above also showed that mothers' positive emotional expressiveness, their attentiveness to children's emotions, and their willingness to help children talk about distress all predicted children's emotional knowledge at the age of 3 and 4. In addition, children who scored higher on the task of mixed emotions at age 5 had mothers with more positive emotions and reactions

to children's emotions when children were 4 years old. Also, mothers' attitude toward their children about learning emotions was the best predictor to children's emotion knowledge at the age of 3. Therefore, these results again supported the notion that maternal emotional socialization was related to children's emotional knowledge.

Denham and Grout (1992) also explored the possible links between maternal emotional expressiveness and preschoolers' socio-emotional competence. In the study, subjects were 57 preschoolers (28 girls, 29 boys) with their mothers, all from middle- to upper-middle-class families. The mean age of the children was 46.18 months. The socio-emotional competence of 48 preschoolers (24 boys and 24 girls) with an average age of 44.96 months was assessed.

To assess maternal emotional expressiveness, mothers were asked to keep emotional diaries for 5 days (at least 1 weekend day), including mother's emotional expressiveness, children's reactions, mother's coping method, and mother's evaluation of emotional situations. Mothers also had a semistructured interview in which they were asked questions about the emotions (happy, sad, angry, and afraid) they had expressed in the child's presence.

Children's understanding of emotional expression and emotional situations was measured in the preschool setting. In the task to label emotional expressions, children were presented with four flannel faces portraying the emotions of happy, sad, angry, and afraid, and they were asked to identify these emotions by naming (verbally) and then by pointing (receptively). Children's knowledge of emotional situation was assessed by a task in which children's understanding of other's emotions in unequivocally and

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equivocally emotional situations could be demonstrated (Borke, 1971; Denham, 1986).

For the unequivocal emotional situations, puppets enacted eight stories with the

puppeteer's neutral vocal and visual emotional cues (Izard, Dougherty, & Hembree,

1980). Next, puppets enacted twelve equivocal stories in which the puppet expressed the

opposite feeling that children themselves would feel in emotional situations as indicated

by their mothers before the assessment. Children were asked to affix the proper flannel

face used in emotion labeling onto the puppet. In addition, children's emotion and their

reactions to peers also were observed. Teachers completed the Baumrind Preschool

Behavior Q-sort (BPB; Baumrind, 1971) and the Preschool Behavior Questionnaire (PBQ;

Behar & Stringfield, 1974) as previously described.

The results from Denham and Grout's (1992) study confirmed that the patterns of

maternal emotional expressiveness could influence children's emotional expressiveness,

emotion understanding, and emotion coping. Specifically, children's emotional

knowledge was associated with family experiences of happy, sad, angry and tension.

Mothers with more frequently tense or intensely sad emotion displays had children with

greater emotional knowledge. Children's emotion knowledge also was greater when

mothers expressed being tense with children's uncooperativeness, or expressed sadness

with daily domestic hassles.

Overall, the studies described above illustrate that maternal socialization of

emotion is related to children's emotional competence. Associations between maternal

positive/negative emotional expressiveness and children's understanding of emotion also

are significant. However, while maternal positive expressiveness is consistently related to

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children's better understanding of emotions, maternal negative expressiveness has shown to be both positively and negatively related to children's emotion understanding. Together with Halberstadt et al. (1999) review of literature described above, negative emotional expressiveness is not necessarily associated with children's poor performance on emotion understanding tasks.

<div align="center">Love as an Emotion</div>

Research on children's emotion understanding has primarily focused on children's recognition of happy, sad, angry, and afraid (e.g., Denham, 1986), neglecting other emotions commonly identified by young children. Love is one of these neglected emotions, even though some studies have suggested that children are commonly able to recognize love. For example, Bretherton and Beeghly (1982) found that love could be used in language by children as young as at 28 months. In Bretherton and Beeghly's study, they examined the relationship between young children's sociability and their use of inter-state language, with a sample of 30 middle-class mothers and their children (equal number of sex) at 28 months from a longitudinal study on symbol development.

For mothers to help collect the data, they were given a list of 73 internal-state words from the 78-item list of Bretherton, McNew, and Beeghly-Smith (1981) and from pilot studies. The 73 words were divided into six categories: perception, physiology, affect, volition/ability, cognition, and moral judgment/obligation. The task for mothers was to pay attention to their children's utterance and to notice if their vocabulary included the target words and in what situation the word was used. Mothers were asked to

provide the information for researchers during the coming home visit. Also, mothers

completed the Colorado Child Temperament Inventory (CCTI; Rowe & Plomin, 1977),

indicating genetic influences on five of the six factors of the scale (sociability, attention

span, activity level, soothability, and emotionality).

To measure the language production of children, children's appropriate use of

different internal-state words in four different situations were recorded (a 30-minute

symbolic play session and a 5-minute mother-child play session in the laboratory, a 5-

minute book-reading session and a 5-minute snack session at home). Mean Length of

Utterance (MLU), based on Brown's (1973) instructions, was obtained from the 30-

minute symbolic play session. Children's language comprehension was assessed by

Emotion Label Recognition Test developed by Bretherton (see Bretherton et al., 1981)

and the Peabody Picture Vocabulary Test (PPVT) during the home visit. In the Emotion

Label Recognition Test, nine picture pairs of infant's and children's contrasting facial

expressions (happy-sad, happy-mad, sad-happy, crying-smiling, happy-serious, sad-

happy, sad-mad, happy-sad, and sad-happy) were presented to children. Children's task

was to point to one picture in response to the question "Can you show me the

sad/happy/mad baby?" Moreover, to assess developmental consistency, information

about children's appropriate use of inter-state labels and a composite measure of semantic

competence (Bretherton, McNew, Snyder, & Bates, 1983) based on Bretherton et al.

(1981) also was obtained.

The purpose of Bretherton and Beeghly's (1982) study was to examine how

children's sociability influences their use of inter-state language, but their study also

demonstrated that almost 90 percent of the children acquired the word "love" (e.g., "I love everybody!") at least when they were 28 months. Accordingly, this finding suggested that love is one of the basic emotions that children as young as 28 months could use and understand.

Some studies using adult subjects to examine people's emotion knowledge by a prototype approach also indicate that love is a basic emotion in emotional life. For example, Fehr and Russell (1984) explored the possibility to define the concept of emotion from a prototype perspective in a series of studies in which subjects were all volunteer undergraduate students of the University of British Columbia, Vancouver, Canada. Among these studies, only the most relevant to the proposed study will be reviewed.

In Study One, 200 undergraduate students were asked to freely list the items belonging to the category of "emotion" (They were given the example as shrimp salad and oysters going with the category "seafood"). Exemplars of emotion depended on how readily they came to mind and Fehr and Russell (1984) found that happiness (152), anger (149), sadness (136), and love (124) were the items named by more than half of the subjects. Therefore, the finding from this study indicated that these undergraduate students viewed love as a common emotion when listing exemplars of emotion.

From the studies described above, not only happy, sad, angry, and afraid, but also love is viewed as a basic emotion. Consequently, these studies suggest a new avenue for emotion understanding research to study children's understanding of love in addition to commonly used emotions of happy, sad, angry, and afraid.

Sex Differences in Emotion Understanding

Children's sex has been associated with their emotion understanding. In Bosacki and Moore's (2004) study, they examined how preschool children's language ability and sex influence children's individual differences in emotion understanding. A total of 58 children and their parents from middle SES population participated in this study, but only 53 children (26 girls, 27 boys; mean age was 3 years and 5 months) and their parents' (51 mothers and 2 fathers) data were analyzed due to illness/absence of 5 children.

To assess preschool children's emotion understanding, four puppet vignettes with emotion-eliciting stories were created, including two for simple or basic emotions (happy and sadness) and two for complex or self-conscious emotions (pride and embarrassment). Children were asked one forced-choice and two open-ended questions in order followed by each story. The first question "How do you think Grover feels?" was to assess children's ability to label emotions and if they did not respond, a forced-choice between the two emotions was given ("Does Grover feel happy or sad?" or "Does Grover feel proud or embarrassed?" and the emotions in both questions were counter balanced). Next, two open-ended questions "What kind of things make you feel happy?" and "Pretend that you saw your friend looking happy, why do you think s/he would look happy?" were asked to assess children's understanding of what would cause such emotions in themselves and then in their peers. In addition, children's receptive vocabulary was measured by the Peabody Picture Vocabulary Test (PPVT-III; Dunn & Dunn, 1997) in which children were asked to point to the picture that had been read by the researcher.

Parents completed the Pre-School Activities Inventory (PSAI; Golombok & Rust, 1993) which is a questionnaire with 24 items on a 5-point scale indexing parents' perceptions of their children's sex role behavior. These questions include categories of gender-typed activities, toy preferences, and personality traits, the sum of which reflects a score that ranges from extremely feminine to extremely masculine.

Bosacki and Moore (2004) found that girls understood emotion better than boys did. Specifically, although girls' and boys' understanding of the more simple emotions (happy and sad) did not differ, girls did show better understanding of the complex emotion "proud." Similar results are found in Brown and Dunn (1996). In their study to examine continuities in children's emotion understanding, participants were 50 secondborn children (23 boys, 27 girls) with their older siblings (the mean age gap was 43 months) and their mothers from a longitudinal study. These children were from predominantly Caucasian families with a wide range of backgrounds. Because 3 families did not participate at the third time point, the data were analyzed from 47 children including 22 boys and 25 girls.

The assessments took place during home visits at three time points: when the children were 33 months old (Time 1), 40 months old (Time 2), and at the end of the children's kindergarten year with a mean age of 75.6 months (Time 3). During Time 1, children's mean length of utterances (MLU) was coded from their 100 continuous utterances following their first 10 conversational turns with standard procedures (Shatz & Gelman, 1973). Family conversations during unstructured observations were recorded. The transcripts were analyzed for conversations in which feeling states (e.g., "sad"

"happy or "Yuck!") (see Brown & Dunn, 1992) and causality (see Hood & Bloom, 1979) were referred by family members. In addition, on the rating scales developed by Stocker, Dunn, and Plomin (1989), the observers rated five child-to-sibling and sibling-to-child behaviors on a 5-point scale including conflict, cooperation, control/dominance, competition, and affection. For example, in rating children's cooperation, the scale ranged from 1 (e.g., "no attempts to cooperate," "no innovative suggestions for joint activity") to 5 ("responds promptly to suggestions or questions," "friendly imitation").

During Time 2, children's emotion understanding was assessed in terms of affective labeling and affective perspective-taking as in Denham (1986). During Time 3, children's understanding of conflict emotions were assessed with a storytelling interview (Gordis et al., 1989) as descried above in Denham and Kochanoff (2002). Children also were asked about their experiences in kindergarten with both open-ended questions ("What do you like/not like about kindergarten?" and "If a younger boy or girl was going to start kindergarten, what would you tell them about the first day?") and questions in which children rated their adjustment to going to school daily, leaving parents, doing new schoolwork, making friends on 3- or 4-point scales. In addition, a picture book version of Stocker and McHale's (1992) Sibling Relationship Interview modeled on the Harter and Pike Pictorial Scale of Perceived Competence and Acceptance for Young Children (Harter & Pike, 1984) was administered to children. They were presented with a series of features of young siblings' relationships and asked to rate on a 4-point scale how similar they and their siblings were to the children in the pictures, with items such as "playing together" and "doing mean things."

The results of Brown and Dunn (1996) showed that girls scored higher than boys did in decoding and explaining emotions. Because girls' and boys' sibling interactions at 33 months (but not the other antecedent variables) and their performance in emotion understanding at 6 significantly differed, Brown and Dunn suggested that girls' emotion understanding may be more likely to be related to their significant relationships.

The studies described above show that children's sex has influences on their emotion understanding performances. Mostly, girls score higher in emotion understanding tasks than do boys. In addition, children's sex may be a factor in how children's understanding of emotion is affected by their family members. For example, Denham et al. (1994) described above found that maternal negative emotional responsiveness was merely associated with boys' emotion understanding. On the contrary, Denham et al. (1997) indicated that girls are more sensitive to parental emotional expressiveness than are boys. Although these findings are not conclusive, they both show that the impact parents' socialization of emotion has on children's emotional understanding may differ for boys and girls. Therefore, it is important to look at children's sex when examining associations between maternal emotional expressiveness and children's understanding of love because children's sex may account for variance in how children understand love.

<u>Summary</u>

The studies discussed above show of how parental socialization of emotion contributes to children's emotional competence and their general social competence.

Particular attention is on how maternal emotional expressiveness is associated with children's understanding of emotion. Also, the influences of children's sex on individual differences in emotion understanding and on their different sensitivity to parental socialization of emotion are described. Current research on emotion understanding has primarily focused on children's ability to recognize the emotions of happy, sad, angry, and afraid. Children's understanding of love has yet been assessed and associated with maternal emotional expressiveness.

Purpose and Hypotheses

The purpose of the present study is to explore associations between maternal emotional expressiveness and preschool children's understanding of love. It is important to look at whether maternal emotional expressiveness relates to children's understanding of love because previous research is restricted to a focus on how maternal expressivity is associated with children's understanding of the emotions of happy, sad, angry, and afraid. It also is of interest to know whether maternal emotional expressiveness is associated with children's love understanding as early as preschool age.

Because this study tries to explore the previously unexamined relationship between maternal emotional expressiveness and children's understanding of love, the hypotheses going to be examined are tentative. It is hypothesized: 1. Preschool children's emotion understanding will be positively associated with their love understanding. 2. There will be associations between maternal emotional expressiveness and preschool children's understanding of love. 3. Preschool girls and boys will score differently on the

love understanding task. 4. The associations between maternal emotional expressiveness

and preschool children's understanding of love will differ for boys and girls.

CHAPTER III

METHOD

<u>Participants and Overview of Procedure</u>

Participants for the current study were recruited from a larger research project examining children's emotional and social development. Twenty-two preschool children enrolled at the Texas Tech University Child Development Research Center (CDRC) and their mothers were included in the sample of this study. The age range of these children was between 2 to 5 years old.

In the beginning of the fall semester, a letter explaining the purpose of the larger research was sent to parents by mail. Enclosed with the letter was a consent form asking parents and their child to take part in the study, a Family Information Form which gathers demographic information such as household income and marital status, and a stamped envelope for returning materials. Parents were informed in the letter that they would be observed during drop-off and pick-up times in the CDRC and needed to fill out questionnaires some other time. In addition, they were informed that several interviews would be completed with their child during playtime in school. Parents were assured that their children could refuse to continue interviews at any time they want. Permission for mothers and children to participate in this study was obtained as part of the larger research project.

In the following semester (in spring), all participating parents were mailed two copies of the Self-Expressiveness in the Family Questionnaire (SEFQ; Halberstadt et al.,

1995) for both parents to complete at home (only the questionnaire of mothers were analyzed) and a letter explaining the purpose of the questionnaire, along with a stamped envelope for returning the questionnaires. For those parents who did not return the questionnaires by the due date, they were given more copies with envelopes by the author and were asked to leave their questionnaires in one of the two big envelopes placed in the CDRC. Observations of mothers' or fathers' emotional expressiveness (depending on who dropped off and picked up the child, but only mothers' data were analyzed) were conducted unintrusively by the author and a graduate student during drop-off and pick-up times in the same semester.

Children completed the Peabody Picture Vocabulary Test (PPVT; Dunn & Dunn, 1981), the Emotion Understanding Interview (based on Denham et al., 1994), and the Love Interview (Colwell & Hart, 2001) by the author and other research assistants during playtime in school. These interviews took two semesters (fall and spring) for all participating children to complete.

<center>Maternal Emotional Expressiveness</center>

Maternal emotional expressiveness was assessed by two measures: the Self-Expressiveness in the Family Questionnaire (SEFQ) and observations.

The SEFQ

Mothers completed the Self-Expressiveness in the Family Questionnaire (SEFQ; Halberstadt et al., 1995) which is designed to examine the frequency of an individual's

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emotional expressiveness within the family context. With a total of 40 hypothetical affective scenarios, 23 scenarios describe concrete examples of positive expressiveness (e.g., "Praising someone for good work," "Expressing excitement over one's future plans"), while the other 17 scenarios describe negative expressiveness (e.g., "Expressing dissatisfaction with someone else's behavior," "Showing how upset you are after a bad day"). For each of the scenarios, mothers were asked to rate, on a 9-point Likert scale ranging from 1 (not at all frequently) to 9 (very frequently), how frequently they expressed themselves during the situation with family members.

Positive and negative emotional expressiveness items were added up separately to create positive self-expression scores and negative self-expression scores. Total self-expression scores also were obtained by aggregating mothers' positive and negative self-expression scores. Internal consistency (Cronbach's alpha) of positive, negative, and total scales were .71, .82, and .79, respectively.

Observations

Mothers were observed during drop-off and pick-up times at CDRC to assess their emotional expressiveness which was coded based on the Child Care Separation/Reunion Scale (Caregivers Ratings of Drop-off and Pick Up Behaviors; McCartney & Beauregard, 1991), designed to assess children's and parents' behaviors during separation and reunion.

Observations of mothers were limited to no more than 2 times a week for drop-off or pick-up (2 drop-offs and 2 pick-ups in a week were the maximum). In addition, drop-off and pick-up observations were not conducted on the same day or on the same

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weekday across weeks (e.g., on Mondays) in order to avoid that some weekday might be a bad day for children or mothers (e.g., children routinely went to piano class on Monday). Most mothers were observed more than 3 times during drop-offs and 5 times during pick-ups.

The coding system used for observations, the Child Care Separation/Reunion Scale, has 10 items (4 positive, 6 negative) describing parents' behaviors when leaving and 7 items (3 positive, 4 negative) when returning. Examples are "While leaving, parent says goodbye to child in some ways (hugs, waves, etc.)," "Parent seems to ignore the child," and "Upon parent's return, parent greets child as soon as possible." Parents' behaviors were recorded as a 0 (not occur) or a 1 (occurs) regarding target behaviors and a choice of NA also was available when the behavior was not applicable. The author and a graduate student were trained to observe two children's parents for the purpose of reliability. After agreement was reached, the author was assigned to observe mothers of 15 children and the graduate student to observe mothers of 13 children. Inter-rater reliability, which was checked by observing parents of 6 children together, was $\psi = .90$, $p < .01$ (Phi coefficient was used to reflect the dichotomous variables).

For each observation, positive leaving/returning scores were created, which were computed by adding up positive and reversed negative items (1 point for occurred positive behaviors, 1 point for negative behaviors not occurred) and further averaged by available items (excluded the N/A items) in that observation. Negative leaving/returning scores were created in the same way, except that the reversed items were the positive ones. Mothers' positive behaviors when leaving/returning which were used for analysis in

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this study were obtained from aggregating all positive leaving/returning scores and averaged by times of observations. Mothers' negative behaviors when leaving/returning were obtained in the same way. However, because of the unique characteristics of negative scores (the correlation between positive and negative scores was $r = -1.00$, $p < .01$), the discussion of negative behaviors was left out in this study.

The Emotion Understanding Interview

Children completed the Emotion Understanding Interview (based on Denham, 1986) during playtime in the CDRC, which contains two tasks to assess children's ability to identify emotions and to understand emotions of other people.

Affective Labeling

In the first task, children were presented with four photographs of a female adult's face (referred to as Pat) expressing happy, sad, angry, and afraid. A research assistant showed the photographs one at a time in order and asked children "How does Pat feel in this picture?" Children's responses were recorded verbatim and the valence of the emotion (positive, negative) was identified. Children got 1 point for a correct answer and 0 for an incorrect answer.

Next, four line-drawing pictures of a same-sex child's face (also referred to as Pat) depicting happy, sad, angry, and afraid were shown to children one at a time in order. Children also were asked "How does Pat feel in this picture?" Again, children's responses were recorded verbatim and the valence of the emotion was identified.

In addition, line-drawing pictures of the same-sex child (depicting happy, sad, angry, and afraid) were laid out on floor in front of children. Children pointed to the pictures as they were asked "Where is the happy/sad/angry/afraid person?" and they were corrected if they pointed the wrong picture before being asked the next question. For each emotion, children also were asked "What is something that makes you feel happy?" and responses were recorded verbatim, but answers to these questions were not used in this study. Children's pointing was recorded as right or wrong at this time and they got 1 point for a correct answer and 0 for an incorrect answer. The possible score range of this task was 0 to 12 and internal consistency for emotion labeling was $\alpha= .87$. The total scores from this task averaged by 12 were children's affective labeling scores.

Affective Perspective-Taking

In the second task, children were told 16 short stories. Some example stories are "How would Pat feel if he/she got a new trike/bike?" and "How would Pat feel if he/she dropped his or her ice cream cone?" Children could answer these questions either by naming the emotions or by pointing to the line-drawing pictures in front of them. Children's responses were recorded verbatim and the valence of the emotion also was identified.

In this task, children got 3 points for giving correct emotions, 2 points for emotions that have the same valence of the correct emotion (e.g., angry has the same emotional valence as sad), and 1 point for incorrect emotions. The possible score range

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for this task was 16 to 48. The total scores from this task averaged by 16 formed

children's affective perspective-taking scores.

<u>The Love Interview</u>

Children also completed the Love Interview (Colwell & Hart, 2001) which is

based on Sternberg's Triangular Theory of love for adults (Sternberg, 1986) and is

designed to assess children's ability to understanding of love. During the interview,

children were told 16 short stories which encompass four components of love including

secrets/intimacy (e.g., "Billy knows that Lori's favorite color is blue," "Courtney does

not know when Rosa is feeling down"), companionship (e.g., "Zach always picks Susie

to play with and have fun with," "Frank never picks Marianne to be his partner for school

projects"), exclusiveness (e.g., "Joe brought his favorite toy to school and only let Greg

play with it"), and affection (e.g., "Heather always pats Elizabeth on the back when

Elizabeth is sad," "Ellen never hugs Jen when Jen is sad"). Each component has both

positive and negative stories, except for exclusiveness which only has positive ones.

Two heart-sharped boxes with one large and one small were shown to the child,

where the large box was placed on the right of some children and left of the other. A

research assistant first explained to the child that the smaller box indicates "less love,"

meaning "love someone only a little bit" and the larger box indicates "more love,"

meaning "love someone a whole lot". The research assistant began with one practice

story to see if the child could understand it. Each time after reading the story, the research

assistant asked the child, for example, "How much does Billy love Lori?" The child was

encouraged to put a small piece of paper with the story written on it into either the large or the small love-shaped box.

Children received one point for each correct answer. Their total love understanding scores which were the sum of scores of all 16 stories were used in this study, along with children's understanding of love in positive situations which added up all scores of positive stories, understanding of love in negative situations which added up all scores of negative stories, and understanding of love in companionship, exclusiveness, affect, and secrets which added up the stories of love in companionship, exclusiveness, affect, and secrets, respectively.

<u>Children's Receptive Vocabulary</u>

Because of the verbal demand of the Emotion Understanding Interview and Love Interview, children's receptive vocabulary was assessed by the Peabody Picture Vocabulary Test (PPVT; Dunn & Dunn, 1981) to partially control associations between children's emotion and love understanding and between maternal emotional expressiveness and children's understanding of love.

During the interview, children were presented with a series of plates, each of which has four line drawing pictures, and they were asked to point to one of the pictures named by a research assistant. For example, on a plate with the pictures of car, table, drinking, and bicycle, the research assistant would ask "Could you show me drinking?" Children were encouraged to guess any picture they thought most possible if they gave "I don't know" when first asked. Each time after the child's pointing, the research assistant

would respond with a satisfying expression such as "good" or "good job" whether he/she

answered correctly or not. Another research assistant helped record the child's answers.

Children got 1 point for each correct answer and 0 point for incorrect answers. The raw

scores and z scores (which were obtained separately for upstairs, older children with an

average age of 3.77 and downstairs, younger children with an average age of 2.44) from

this interview were used as an index of children's receptive vocabulary.

CHAPTER IV

RESULTS

The results from this study are reported in five sections. In the first section, descriptive findings are presented. In the second section, bivariate correlations among children's understanding of emotion, understanding of love, and their receptive verbal ability are presented. In the third section, bivariate correlations among maternal emotional expressiveness and children's understanding of love are presented. In the fourth section, boys' and girls' scores on all composite of the Love Interview in terms of means, standard deviations, and t-tests are presented. Finally, sex differences in bivariate correlations among maternal emotional expressiveness and children's understanding of love are presented.

Descriptive Findings

Twenty-two children (14 girls, 8 boys) and their mothers participated in this study. Because of one girl with two mothers, the actual number of mothers participating was 23. Children ranged in age from 2 years old to 5 years old, with 5 children at the age of two, 10 children at the age of three, 4 children at the age of four, and 3 children at the age of five. The ethnicities of the mothers were reflected in self-report: 21 European American, 1 African American, and 1 Chinese. The annual household income (from 20 families) ranged from $ 25,000 to over $ 85,000, and 55% of families earned more than $ 85,000 per year. Also, 95% of mothers and 90% of fathers have at least a college degree and

82% of mothers and 65% of fathers were employed in professional occupations. The

information above indicated that most mothers and children were from middle- and

upper-middle class families (Entwisle & Astone, 1994). In addition, the analyses of the

Emotion Understanding Interview and the Love Interview were obtained from only 21

children because one 2-year-old boy with Down syndrome could not be interviewed.

Bivariate Correlations among Children's Emotion and Love Understanding, along with Their Receptive Vocabulary

Receptive Vocabulary, Emotion Understanding, and
Love Understanding

There was a significant correlation between children's affective labeling and

affective perspective taking ($r = .51$, $p < .05$). Consequently, the affective labeling and

affective perspective taking scores were combined to form the scores of children's

emotion knowledge, which indexes children's ability to understand emotions.

Correlations between children's receptive vocabulary and their emotion

knowledge and love understanding scores were conducted to determine how children's

receptive vocabulary was related to their performances on the Emotion Understanding

Interview and the Love Interview. As predicted, children's receptive vocabulary (only

PPVT raw scores) was significantly associated with children's emotion understanding

and some composites of love understanding (see Table 1). For example, children's

receptive vocabulary was highly associated with their emotion knowledge, understanding

of love in positive situations, and understanding of love in affection. These finding show

that children with more advanced verbal ability scored higher on the emotion understanding and love understanding task.

Emotion Understanding and Love Understanding

Table 1 also shows that children's emotion understanding and their understanding of love were significantly correlated. Specifically, children's emotion knowledge was positively associated with their total love understanding scores, understanding of love in positive situations, and understanding of love in exclusiveness, but negatively associated with understanding of love in negative situations. Children's emotion knowledge still was significantly associated with their total love understanding scores ($r = .45$, $p < .05$), understanding of love in positive situations ($r = .45$, $p < .05$ and $r = .71$, $p < .01$, for raw scores and z scores, respectively), understanding of love in negative situations ($r = -.54$, $p < .05$), and understanding of love in exclusiveness ($r = .46$, $p < .05$), even after children's receptive vocabulary (z scores) was controlled for.

Associations between Maternal Emotional Expressiveness
and Children's Understanding of Love

Two Measures of Maternal Emotional Expressiveness

In this study, how mothers emotionally expressed themselves was measured both by the SEFQ and observations in order to capture maternal emotional expressiveness more accurately. However, as shown in Table 2, maternal emotional expressiveness measured by the SEFQ (mothers' positive, negative, and total self-expression) unexpectedly was not related to those measured by the observations (mothers' positive

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behaviors when leaving and returning), except for the association between boys' mothers'

positive self-expression and positive behaviors when returning, controlling for boys'

receptive vocabulary (raw scores) (see Table 3).

Table 2 also shows that mothers' positive behaviors observed during drop-off and

pick-up time were not correlated. Once again, the significant result only appeared in the

negative association between boys' mothers' positive behavior when leaving and boys'

mothers' positive behavior when returning, when associations were examined separately

for boys and girls (see Table 4). In addition, there also were no significant associations

between mothers' positive and negative self-expression.

Maternal Emotional Expressiveness and
Children's Understanding of Love

As shown in Table 2, maternal emotional expressiveness was significantly

associated with children's understanding of love. The specific associations are detailed

below based on the different measurements of maternal emotional expressiveness.

Maternal emotional expressiveness as assessed by the SEFQ. Mothers' positive self-

expression was negatively correlated with children's understanding of love in

companionship. Also, mothers' total self-expression was negatively correlated with

children's understanding of love in companionship (see Table 2).

Maternal emotional expressiveness as assessed by observations. Mothers' positive

behaviors when leaving was positively associated with children's understanding of love

in companionship (see Table 2), which still was significant even after children's receptive

vocabulary (both of raw scores and z scores) was controlled for ($r = .62$, $p < .05$ and r

= .63, *p* < .05, respectively). There also were some nonsignificant associations between maternal emotional expressiveness and children's love understanding. Specifically, mothers' negative self-expression and mothers' positive behaviors when returning were not associated with any composite of children's understanding of love. In addition, maternal emotional expressiveness, either assessed by the SEFQ or observations, was not associated with children's total love understanding scores, their understanding of love in positive and negative situations, and their understanding of love in exclusiveness, affection, and secrets.

Sex Differences in Children's Scores on the Love Interview

Children's performance on the Love Interview is shown in Table 5. The means of boys' and girls' scores on all composites of love understanding were similar. Also, T-tests showed that there were no significant differences in how boys and girls scored in the love understanding task, indicating that sex differences did not exist in children's understanding of love, contrary to the predictions.

Sex Differences in Correlations between Maternal Emotional Expressiveness and Children's Understanding of Love

Although boys and girls did not show significant differences in their mean scores of love understanding, it still is interesting to see how maternal emotional expressiveness was related to boys' and girls' understanding of love for exploratory purposes. However, these findings must be interpreted with caution and are offered only as descriptive findings. Table 3 and 4 show the correlations between maternal emotional expressiveness

and boys' and girls' understanding of love. These correlations are discussed below first without (before), then with (after), children's receptive vocabulary being taken into account.

<u>Correlations without Controlling for</u>
<u>Children's Receptive Vocabulary</u>

Maternal emotional expressiveness as assessed in the observations was associated with girls' understanding of love; however, it was not significantly associated with boys'. Specifically, mothers' positive behaviors when leaving were correlated only with girls' understanding of love in companionship, even after children's receptive vocabulary (both of raw scores and z scores) was controlled for. On the other hand, maternal emotional expressiveness as assessed on the SEFQ was significantly associated with boys, but not girls' understanding of love. Specifically, mothers' negative self-expression was correlated only with boys' understanding of love in exclusiveness and mothers' total self-expression was correlated only with boys' understanding of love in companionship (See Table 4).

<u>Correlations Controlling for Children's Receptive Vocabulary</u>

Because of the high verbal demand of the Love Interview, partial correlations were conducted to eliminate the effects of verbal ability, first controlling for children's PPVT raw scores, followed by their PPVT z scores. Significant partial correlations are shown in Table 3.

After controlling for children's receptive vocabulary (*z* scores), maternal emotional expressiveness as assessed on the SEFQ was associated with more composites of girls' understanding of love. Specifically, mothers' negative self-expression was negatively correlated with girls' total love understanding scores, understanding of love in positive situations, and understanding of love in exclusiveness. Also, mothers' total self-expression was negatively correlated with girls' total love understanding scores, understanding of love in positive situations (both of raw and *z* scores), and understanding of love in exclusiveness (see Table 3).

In addition, maternal emotional expressiveness as assessed by the SEFQ was associated with both boys' and girls' understanding of love in positive situations and understanding of love in exclusiveness, after controlling for their receptive vocabulary (*z* scores) (see Table 3). However, in accordance with the hypotheses that sex differences exist in associations between maternal emotional expressiveness and children's love understanding, these associations were correlated in the opposite directions for boys and girls. Specifically, mothers' negative self-expression was positively associated with boys' understanding of love in exclusiveness, but was negatively associated with girls'. These correlations were significantly different from each other when their correlation coefficients were compared by using the *z*-test ($z = -4.47$, $p < .01$). Also, mothers' total self-expression was positively associated with boys' understanding of love in positive situations, but was negatively associated with girls'. Again, these correlations were significantly different from each other when their correlation coefficients were compared by using the z-test ($z = -4.11$, $p < .01$) (see Table 3).

Table 1

Correlations among Children's Receptive Vocabulary, Emotion Understanding, and Love Understanding

	1	2	3	4	5	6	7
1. Children's Receptive Vocabulary (Raw Scores)							
2. Children's Receptive Vocabulary (*z* Scores)	.85**						
3. Emotion Knowledge Scores	.77**	.35					
Children's Understanding of Love							
4. Total Love Understanding Scores	.53*	.32	.51*				
5. Understanding of Love in Positive Situations	.71**	.41	.75**	.78**			
6. Understanding of Love in Negative Situations	-.49*	-.26	-.58**	-.04	-.65**		
7. Understanding of Love in Exclusiveness	.55**	.32	.52*	.70**	.79**	-.42	
8. Understanding of Love in Affection	.48*	.38	.43	.49*	.26	.17	.05

 *: p < .05
**: p < .01

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Table 2

Bivariate Correlations between Maternal Emotional Expressiveness and Children's Understanding of Love

	1	2	3	4	5
Maternal Emotional Expressiveness (the SEFQ)					
1. Mothers' Positive Self-Expression					
2. Mothers' Negative Self-Expression	.02				
3. Mothers' Total Self-Expression	.63**	.79**			
Maternal Emotional Expressiveness (Observations)					
4. Mothers' Positive Behavior When Leaving	-.02	.25	.19		
5. Mothers' Positive Behavior When Returning	.03	-.11	-.07	-.21	
Children's Understanding of Love					
6. Understanding of Love in Companionship	-.43*	-.26	-.47*	.56*	.07

*: p < .05
**: p < .01

Table 3

Correlations between Maternal Emotional Expressiveness and Boys' and Girls' Understanding of Love, Controlling for Children's Receptive Vocabulary

	Boys	Girls
Controlling for PPVT Raw Scores:		
1. Moms' Pos Self-Expression and Moms' Pos Behaviors When Returning	.93**	-.27
2. Moms' Tot Self-Expression and Children's Understanding of Love in Pos Situations	.64	-.66**
3. Moms' Pos Behaviors When Leaving and Children's Understanding of Love in Comp	-.09	.77**
Controlling for PPVT *z* Scores:		
4. Moms' Neg Self-Expression and Children's Total Love Understanding Scores	.59	-.75*
5. Moms' Neg Self-Expression and Children's Understanding of Love in Pos Situations	.85	-.68*
6. Moms' Neg Self-Expression and Children's Understanding of Love in Exclusiveness	.92*	-.77**
7. Moms' Tot Self-Expression and Children's Total Love Understanding Scores	.60	-.68*
8. Moms' Tot Self-Expression and Children's Understanding of Love in Pos Situations	.90*	-.73*
9. Moms' Tot Self-Expression and Children's Understanding of Love in Exclusiveness	.68	-.69*
10. Moms' Pos Behaviors When Leaving and Children's Understanding of Love in Comp	-.38	.77**

Table 4

Bivariate Correlations between Maternal Emotional Expressiveness and Boys' and Girls' Understanding of Love[a]

	1	2	3	4	5	6	7	8	9
Maternal Emotional Expressiveness (the SEFQ)									
1. Mothers' Positive Self-Expression		.14	.67**	.08	-.32	-.23	-.18	-.37	-.01
2. Mothers' Negative Self-Expression	-.17		.82**	.29	.19	-.35	-.22	-.17	-.14
3. Mothers' Total Self-Expression	.57	.71*		.26	-.06	-.39	-.26	-.34	-.11
Maternal Emotional Expressiveness (the Observations)									
4. Moms' Pos Behaviors When Leaving	-.40	.14	-.16		-.02	.39	.23	.74**	.22
5. Moms' Pos Behavior When Returning	.48	-.49	-.08	-.77*		.14	.16	-.01	.14
Children's Understanding of Love									
6. Total Love Understanding Scores	-.19	.52	.29	.78	-.55		.79**	.51	.72**

Table 4 (Continued)

	1	2	3	4	5	6	7	8	9
7. Understanding of Love in Pos Situations	-.23	.61	.35	.19	-.36	.69		.37	.80**
8. Understanding of Love in Companionship	-.66	-.44	-.85*	-.20	.22	-.22	.08		.14
9. Understanding of Love in Exclusiveness	-.29	.85*	.50	.47	-.74	.60	.79*	-.22	

  *: $p < .05$
**: $p < .01$
 a: correlations for girls ($n = 14$) are presented above the diagonal; correlations for boys ($n = 7$) are presented
    below the diagonal

Table 5: Ranges, Means, Standard Deviations, and T-tests on Boys' and Girls' Scores on the Love Understanding Task

	Boys/Girls	N	Range	Mean	Std. Deviation	t
Total Love Understanding Scores	Boys	7	8-11	9.29	1.11	-.98
	Girls	14	6-12	8.57	2.24	
Understanding of Love in Pos Situations	Boys	7	4-8	5.86	1.57	-.84
	Girls	14	0-8	4.86	2.93	
Understanding of Love in Neg Situations	Boys	7	2-5	3.43	1.13	.38
	Girls	14	1-6	3.71	1.82	
Understanding of Love in Companionship	Boys	7	2-4	2.57	.79	-.37
	Girls	14	1-4	2.43	.85	
Understanding of Love in Exclusiveness	Boys	7	1-4	2.29	1.11	-1.38
	Girls	14	0-3	1.50	1.29	
Understanding of Love in Affection	Boys	7	1-4	2.00	1.15	.86
	Girls	14	1-4	2.36	.74	
Understanding of Love in Secrets	Boys	7	1-3	2.43	.79	-.38
	Girls	14	1-4	2.29	.83	

CHAPTER V

DISCUSSION

The purpose of the present study was to explore associations between maternal emotional expressiveness (as assessed from the observations and SEFQ) and preschool children's understanding of love. This is the first study to link maternal emotional expressiveness to children's love understanding and to investigate how maternal expressiveness might influence children's love understanding differently for boys and girls. The study is important because it helps to clarify the role of mothers' socialization of emotion in the development of children's understanding of love.

The most important results from this study deal with the significant associations between maternal emotional expressiveness and children's understanding of love. Specifically, maternal positive emotional expressiveness, as assessed from observing mothers during drop-off time, was positively related to children's love understanding (in companionship), whereas maternal positive and total emotional expressiveness, as assessed from the SEFQ, were negatively related to children's love understanding (in companionship). In contrast to Boyum and Parke (1995) and Cassidy et al. (1992), who also used a questionnaire (FEQ) and observations to assess parental emotional expressiveness and found that they were positively interrelated, the observations and SEFQ used in this study were not associated with each other. Also, previous studies (Denham & Kochanoff, 2002; Denham & Grout, 1993; Denham et al., 1997) on maternal socialization of emotion have primarily shown that mothers' positive and total emotional

expressivity contributed to children's better understanding of emotion. Therefore, the inverse associations of the observations and SEFQ to children's love understanding found in this study are somewhat unexpected.

A possible explanation for the differences between this study and previous research could be the distinct nature of the two measurements. In the current study, the observations took place while mothers were doing daily routines in a naturalistic setting (drop off and pick up in preschool) where mothers expressed emotions directly toward children in their interactions (e.g., "While leaving, mom says goodbye to child in some way."). On the other hand, the SEFQ was obtained from mothers' self-report about their emotional expressiveness in responses to various hypothetical situations that may not relate to children (e.g., "exclaiming over a beautiful day."). Therefore, the discrepant associations between maternal expressiveness and children's love understanding from the observations and SEFQ could be due to the variability in these measures. In fact, the results from this study show that the SEFQ and the observations were uncorrelated, suggesting that the two measures could be seen as independent.

In addition, the positive connection between mothers' observed positive expressiveness (as assessed from observing drop-off time) and children's understanding of love could also result from the unique quality of drop-off time. During this time, mothers were going to leave children behind and both mothers and children could experience and express emotions easily due to the separation. Consequently, how mothers expressed their emotions in the drop-off interactions may become a very crucial avenue where children learned about love. For example, some mothers would say "I love

you" to children or hug them before they left. Therefore, it is possible that mothers who were more likely to express themselves with positive emotions during drop-off time had children with better knowledge of love. It also is possible that the way mother expressed themselves during mother-child interactions, rather than emotional expressiveness as a whole, would benefit children's understanding of love.

Conversely, mothers' emotional expressiveness as assessed from the SEFQ (which is designed to tap a persistent pattern of expressing oneself with family members) is based on a wide range of emotional expressiveness (e.g., forgiveness, dissatisfaction, happy, sympathy, hurt) occurring across diverse circumstances. Assessing how mothers expressed themselves this way may not reflect actual emotion situations that children experienced directly. Thus, the nature of the SEFQ may account for the unexpected negative associations between maternal positive and total emotional expressiveness (as assessed from the SEFQ) and children's understanding of love.

Results from this study also found that children's understanding of love was associated with their understanding of emotion (as assessed by children's ability of emotion labeling and affective perspective taking), even after children's receptive vocabulary was controlled. All of these associations were positively correlated, except for children's responses to the situations indicating a lack of love on the Love Interview. The close relationships between love and emotion understanding indicate a promising research area beyond present studies on children's emotion understanding and emotional competence, because both have traditionally excluded the emotion love. Therefore, the

findings from this study give rise to the necessity of paying attention to love in studying young children's emotional development.

Inconsistent with the hypotheses, children's sex did not play a role in influencing how they performed on the Love Interview. In contrast, boys' and girls' mean scores were similar across all domains of understanding of love. These results are surprising because they contradict previous studies (e.g., Bosacki & Moore, 2004; Brown & Dunn, 1996; Ontai & Thompson, 2002) in which girls scored higher on emotion understanding tasks than did boys. Possible explanations for similar performances on boys' and girls' love understanding could be found from the sample size and children's age. The sample size of this study ($N = 22$) might be too small to show the true effects of children's sex. Also, Denham and Couchoud (1990a) stated that age is an effective predictor of children's emotion understanding with older children having better emotion knowledge. Because boys and girls were compared together without discrimination of their ages in this study, older children's higher scores might make up the lower scores of the same sex younger children. Therefore, it is likely that significant differences would appear when a larger sample and different age groups are available.

As was originally predicted, findings from the current study show that maternal emotional expressiveness was related to children's understanding of love differently for boys and girls. For example, maternal positive expressiveness as assessed in the observations was related only to girls' understanding of love in companionship, whereas maternal total emotional expressiveness as assessed by the SEFQ was related only to boys' understanding of love in companionship. In addition, when children's receptive

vocabulary was controlled for, maternal negative and total emotional expressiveness as assessed by the SEFQ were positively associated with boys' love understanding (understanding of love in exclusiveness and understanding of love in positive situations, respectively), while they were negatively associated with girls', indicating that maternal emotional expressiveness exerted reverse influences on boys and girls' understanding of love.

At the same time, results also indicate that how mothers expressed their emotions toward boys and girls, either assessed by the observations or the SEFQ, did not show significant differences. Thus, a possible explanation for different outcomes of boys' and girls' love understanding could be found from their dissimilar reactions to maternal emotional expressiveness. For example, Denham et al. (1997) stated that in terms of children's negative emotion regulation, girls are more subjected to families' and parents' emotional responsiveness and expressiveness. Also, Denham et al. (1994) found that only boys' emotion understanding could be predicted by maternal negative emotional responsiveness and that boys might be more vulnerable to specific practices of mothers. Although findings from the above studies are not exactly comparable to the results from this study, they are conceptually parallel to each other in that maternal emotional socialization does not have the same effects for boys and girls. However, more studies still are needed in order to clarify the picture of how and why boys and girls are differentially influenced by maternal emotional expressiveness in specific and parental socialization of emotion in general.

Taken together, the results of present study show that maternal emotional expressiveness as assessed by the observations and the SEFQ was linked to preschool children's understanding of love. This study is important because it extends research foci of previous studies (e.g., Denham & Couchoud, 1990; Dunn et al., 1991; Denham et al., 1990) on children's emotion understanding, which primarily assess children's ability to understand happy, sad, angry, and afraid. In addition, the results show that maternal expressiveness as assessed from the observations has inverse relations than that assessed from the SEFQ to children's love understanding. A possible explanation could be the independent natures of the two measurements. It also is likely that rather than maternal emotional expressiveness considered as a whole, emotional expressiveness occurring in mother-child interactions under particular circumstances (e.g., drop-off time in the daycare) where children experience expressiveness directly contributes more to children's understanding of love.

Although children's performances on the Love Interview did not differ based on their sex, how maternal emotional expressiveness was associated with children's love understanding was different for boys and girls, suggesting the existence of sex differences in children's sensitivity to maternal expressiveness. In particular, how mothers expressed emotions toward boys and girls, either assessed from the SEFQ or observations, did not show any significant differences from this study. Accordingly, these findings acknowledge other studies (e.g., Eisenberg et al., 1998) in which children's characteristics, such as their age, gender, and temperament, play an important role in reacting to parental emotional socialization.

<u>Limitations</u>

There are several limitations that need to be addressed when interpreting the findings of the current study. First of all, the sample used in this study was relatively small ($N = 22$ for children, $N = 23$ for mothers) and predominately White from middle- and upper-middle class families (21 White, 1 African American, 1 Chinese, and 55% of families earning more than \$ 85,000 per year). The small and homogeneous sample may account for the unexpected results found in this study. Also, the true effects of maternal emotional expressiveness on preschool children's love understanding may not have been shown. Thus, future research is required with larger and more heterogeneous samples, including different racial groups and a wider range of social background.

In addition, although both observations and the self-reported measure were used in this study to capture maternal emotional expressiveness more accurately, the independent nature of the two measurements may underestimate the true effects of maternal expressiveness. While observations used in this study were restricted to drop-off and pick-up time, observations where children directly experienced maternal emotional expressiveness, the SEFQ assesses maternal emotional expressiveness across different situations where children might not directly experience the expressiveness. Consequently, in order to address the gaps of this study, future research with observations under various circumstances and questionnaires focusing on specific mother-children interactions may be helpful.

Due to practical considerations, emotional expressiveness of mothers is the only variable used in this study to account for children's understanding of love. However,

studies have shown that children learn about emotions from relationships more than mother-child (e.g., Dunn & Hughes, 1988; Rohner & Veneziano, 2001; Youngblade & Dunn, 1995). Fathers, siblings, and peers all play important roles in the development of children's emotional competence. Similarly, other aspects of socialization of emotion, such as mothers' emotional responsiveness and coaching, are excluded from this study. Eisenberg et al. (1998) stated that more positively expressive parents are usually those who are kind, supportive and using other constructive means to achieve emotional socialization. In other words, different practices of emotional socialization usually accompany one another and should be examined altogether. Thus, it will be fruitful in future research to investigate how emotional expressiveness from other close family members and peers or other aspects of emotional socialization relates to children's understanding of love.

Finally, the attempt to demonstrate mothers' influence on children's love understanding is restricted because the analyses used in this study are correlational and suggest no causality. In particular, maternal emotional expressiveness and children's understanding of love were measured concurrently, indicating no directional effects. Previous studies have shown bidirectional influences between parents and children (e.g., Bell, 1968; Dumas, LaFreniere, & Serketich, 1995; Kochanska, 1992; Cassidy et al., 1992; Denham et al., 1997) and found that children are not passive recipients in parent-child interactions. It is possible that mothers' positive emotional expressiveness observed during drop-off time was elicited by their emotionally competent children who may have better knowledge of love, which nonetheless was not examined in this study. Therefore, a

longitudinal study where the reciprocity between mothers and children is taken into consideration will benefit greatly in understanding of associations between maternal emotional expressiveness and children's love understanding.

Conclusions

In spite of these caveats, the present study is still noteworthy because it shows how mothers express their emotions is related to children's understanding of love, even though with a small sample. This study advances research on maternal emotional expressiveness to a less known area of understanding of love and opens a new avenue to study children's emotion understanding and parental socialization of emotion. In addition, the findings show that boys' and girls' love understanding were associated with maternal emotional expressiveness in different ways, which replicates previous studies suggesting different sensitivity to parental socialization of emotion based on children's sex.

This study contributes to the growing research on the connections between parental socialization of emotion and children's emotional competence in that it helps to clarify the role of mothers in the development of children's love understanding. This study also is important to researchers whose interests are in children's emotional development and parent-child relationships. Accordingly, the promise of this study lies in its potential to lead future research to understand associations between maternal emotional expressiveness and children's love understanding and the construct which determines how children's understanding of love is influenced as well.

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