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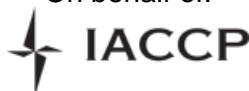
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# Chinese American Immigrant Mothers' Discussion of Emotion With Children: Relations to Cultural Orientations

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## Abstract

This study examined the unique relations of American and Chinese cultural orientations to the content and quality of first-generation Chinese American immigrant mothers' emotion discussion with their school-aged children (age = 5 to 9 years). Mother-child dyads ( $n = 187$ ) were videotaped during a storytelling task, and various aspects of mothers' emotion talk were coded. Mothers self-reported on their cultural orientations in language proficiency and behaviors (i.e., media use and social affiliations). Controlling for socioeconomic status, mother's age, child age, gender, and generation status, as well as the length, elaborateness, and language (English and/or Chinese) of storytelling, mothers' Chinese orientation was uniquely associated with their lower use of emotion questions and explanations and a lower quality of emotion discussion. Although mothers' American orientation was positively correlated with their use of positive emotion words and emotion explanations, it did not uniquely predict emotion discussion after controlling for other predictors.

## Keywords

emotion discussion, mother-child, cultural orientation

An important task of early childhood is to develop the ability to understand and express emotions (see Bretherton, Fritz, Zahn-Waxler, & Ridgeway, 1986, for a review). From infancy until the early school years, children grow tremendously in their ability to identify others' emotions, verbally express their own emotions, discuss both past and future emotions, and make causal statements about emotions (Bretherton et al., 1986). According to functionalist theories of emotion, these skills enable self-regulation and adaptive interpersonal functioning through facilitating individuals' management of internal emotional processes and accurate appraisals of others' affective states (Bretherton et al., 1986; Campos, Mumme, Kermoian, & Campos, 1994).

An important way in which children develop emotional and social competence is through parents' discussion of emotions (see Eisenberg, Cumberland, & Spinrad, 1998, for a review).

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Several studies have demonstrated that mothers' use of emotion language is tied to children's use of emotion words (Dunn, Bretherton, & Munn, 1987), affective perspective taking skills (Garner, Carlson Jones, Gaddy, & Rennie, 1997), prosocial behaviors (Garner, Dunsmore, & Southam-Gerrow, 2008), and social functioning (Laird, Pettit, Mize, Brown, & Lindsey, 1994). Despite these findings, there continues to be two major gaps in our understanding of parent-child emotion talk. First, much remains to be discovered regarding why parents differ in their emotion discourse with children. Identifying the factors associated with individual differences in parents' emotion talk can clarify how and why parents variably engage in supportive or unsupportive emotion socialization behaviors. In particular, the role of culture deserves more attention. While developmental researchers have examined the effects of culture (Doan & Wang, 2010; Fivush & Wang, 2005) on maternal emotion talk in cross-cultural or cross-ethnic comparative samples (e.g., by comparing American mothers and native Chinese or Chinese American mothers), few researchers have examined if and how individual differences in parents' cultural orientations, values, or practices might be systematically related to their emotion talk behaviors within a given ethnic group. Second, although many researchers have examined the content of maternal emotion talk (e.g., frequency of emotion words), few researchers have attempted to examine multiple aspects of emotion talk with specificity. Studying the content (e.g., specific kinds of emotion statements and emotion words) *and* quality (i.e., sophistication of emotion discussion) would enable researchers to explore parents' emotion talk at a higher degree of granularity. Because researchers have found unique linkages between specific types of parental emotion discussion (e.g., linking, self-report of feelings, Eisenberg et al., 1992; explanations about emotions, Garner et al., 2008) and children's adjustment outcomes, understanding how cultural factors relate to specific aspects of parental emotion discussion can inform the development of culturally sensitive interventions to promote socioemotional competence in children of diverse backgrounds.

To address these gaps, this study examined the content and quality of maternal emotion talk during a parent-child storytelling procedure in a socioeconomically diverse sample of first-generation Chinese American immigrant mothers. We tested the unique relations between Chinese American mothers' acculturation toward American culture and enculturation toward Chinese culture with the content and quality of their emotion talk. Notably, we considered the potential confounding factors including mothers' socioeconomic status, language used during emotion talk, length and elaborateness of emotion talk, and child's demographic characteristics (e.g., gender, age, and generation status).

### *Parents' Discussion of Emotion and Its Role in Children's Socioemotional Development*

Parents and children begin talking about emotions very early. By age 3, there are already important trends in parent-child conversations about emotions. For example, Lagattuta and Wellman's (2002) analyses of extensive longitudinal speech samples of six children and their parents revealed that as early as age 2, parents and children talk about past emotions, provide causal explanations for emotion, and discuss how emotions shape and are influenced by other mental states. Both the frequency and sophistication of parent-child discourse about emotions increased significantly in the preschool years. Moreover, parent-child discourse about negative emotions included a larger emotion vocabulary, more open-ended questions, and more talk about other people than their discourse about positive emotions (Lagattuta & Wellman, 2002). Although Lagattuta and Wellman (2002) did not examine the links of parent-child discourse about emotions to children's socioemotional adjustment, they speculated that parents' explorative and instructional approach to discussing emotions (especially negative emotions) may serve to help children understand and regulate their own emotions in social interactions.

Similarly, Gottman, Katz, and Hooven (1997) theorized that parents' willingness to discuss emotions in combination with emotional awareness and supportive parenting (i.e., "emotion-coaching") can foster children's ability to self-soothe and regulate emotions. In particular, acceptance and discussion of negative affect can validate children's feelings and thereby decrease the likelihood of children's heightened negative emotionality, which in turn may facilitate better social and emotional functioning. Consistent with this theory, Gottman et al. (1997) found that high "emotion-coaching" parents had children who were physiologically more regulated (i.e., higher vagal tone) and more socially skilled in later development than those of low "emotion-coaching" parents. More recent work has expanded to include ethnic minority children and examined the mediating or moderating mechanisms underlying the links between parents' emotion-coaching and child outcomes. For example, Cunningham, Kliewer, and Garner (2009) found that African American school-aged children's emotional understanding and emotion regulation mediated the links between caregivers' meta-emotion philosophy and children's internalizing problems and social competence. Moreover, Lunkenheimer, Shields, and Cortina (2007) found that parental emotion coaching of negative emotions protected children from the detrimental effects of emotion dismissing (an unsupportive socialization practice) in a sociodemographically diverse sample of school-age children. Together, these findings demonstrate the potential benefit of parental emotion socialization (including emotion discussion) for children's socioemotional well-being in diverse families.

Other empirical findings have also supported the link between children's socioemotional functioning and specific types of parents' emotion talk (Eisenberg et al., 1998), including explanations about emotions, self-report of emotion, directives to label emotion, and emotion-related references to children's previous experiences (Garner, 2006; Garner et al., 2008; Eisenberg et al., 1992). Although much of this research has focused on toddlers and preschoolers (e.g., Dunn et al., 1987; Dunn, Brown, & Beardsall, 1991), there is emerging evidence that parents' emotion discussion continues to be influential during middle childhood (Eisenberg et al., 2001; Eisenberg et al., 1992). For example, Eisenberg et al. (2001) found that parents' linking of others' emotions to children's experiences was related to lower levels of unregulated emotional expressivity in second to fifth graders. Moreover, emotion talk in general (e.g., labeling emotions or asking questions about emotions) was negatively related to children's externalizing problems. Given the limited research on parents' emotion discussion beyond the preschool years, the present study examined how mothers talk about emotion with 5- to 9-year-old children during storytelling, a common adult-child interaction and socialization practice in this age group (Pasupathi, Henry, & Carstensen, 2002; Stavans & Goldzweig, 2008).

### *Cultural Variations in Parent-Child Emotion Discussion*

Given the established associations between parental emotion talk and children's socioemotional competence (Eisenberg et al., 1998), understanding the sources of individual differences in parents' emotion discussion behaviors is particularly important for developing effective interventions. A potential distal factor influencing emotion talk is culture. Although facial expressions and understanding of basic emotions appear to be universal (Ekman, 1972), display rules and the valuation of affect are influenced by culture (Mesquita & Frijda, 1992; Tsai, Louie, Chen, & Uchida, 2007). As such, parents are likely guided by cultural values when socializing children's emotion understanding and behaviors (e.g., Cole, Tamang, & Shrestha, 2006). To examine the role of culture in parents' emotion discussion, the American and Chinese cultures are ideally suited for comparison because they represent disparate perspectives on how individuals are related to each other, which has implications for the experience and expression of emotions (Markus & Kitayama, 1991).

Specifically with regard to talking about emotions, Cameron (2000) argued that a verbally precise analytic approach to emotions, characterized by frequent causal explanations, is emphasized in the Western (i.e., American) culture. Indeed, parenting books and therapeutic treatments that promote an expressive and analytic approach to emotions, which emphasizes the identification, exploration, and explanation of emotions, is prevalent in the United States (e.g., Gottman, Declaire, & Goleman, 1998; Greenberg, 2002). By contrast, because Chinese culture prioritizes maintaining group harmony, excessive emotional expression is regarded as potentially disruptive to interpersonal relationships (Bond & Hwang, 1986). Thus, Chinese parents may encourage children to inhibit emotional expression. Indeed, one study found that Mainland Chinese and Chinese American girls were less expressive than American girls and Chinese girls adopted by American families, and that Chinese mothers were less expressive than European American mothers (Camras, Chen, Bakeman, Norris, & Cain, 2006).

Although there is a sizable literature on emotion discussion in European American families, researchers have rarely examined parent-child emotion discussion in other cultural groups, although there are a few exceptions. In a series of studies, Wang et al. compared parent-child conversations in Chinese and European American families (Doan & Wang, 2010; Fivush & Wang, 2005; Wang, 2001; Wang, Leichtman, & Davies, 2000). For example, Doan and Wang (2010) found that when narrating a story based on a picture book, European American mothers spoke more often about emotions and thoughts than Chinese American mothers, who favored discussing behaviors. Similarly, Wang (2001) found that compared to Chinese mothers, European American mothers were more likely to provide explanations for their children's and others' emotions, when discussing a shared emotional experience with their children, exhibiting an "emotion-explaining style." By contrast, Chinese mothers exhibited a didactic style. Their commentary was often intended to teach the child a lesson rather than to explain why he or she felt an emotion (Wang, 2001). Furthermore, while European American mothers often co-constructed memories and stories with their children and elaborated on children's comments, Chinese mothers tended to pose and repeat factual questions, displaying a low elaborative and repetitive discourse style, as well as talk about moral standards and behavioral expectations (Wang et al., 2000).

In a study examining the content of emotion-talk during mother-child reminiscing of past events, Fivush and Wang (2005) found some cultural differences in mothers' discussion of discrete negative emotions (e.g., anger, sadness). For example, Chinese mothers used more negative emotion words than European American mothers and spoke about anger more frequently when discussing negative emotions. In contrast, European American mothers more often spoke about sadness in their discussion of negative emotions and were also more likely to negotiate and explore children's self-asserted emotions. Because negative emotions (especially anger) are potentially disruptive to interpersonal relationships, Fivush and Wang (2005) argued that the Chinese mothers were inclined to discuss content geared at helping children self-regulate their emotions considering the social context.

Together, the above studies suggest that cultural values regarding emotion and emotion display may shape the style and content of parents' emotion talk with children. Specifically, European American mothers' emotionally elaborative style is consistent with Western culture's emphasis on self-expression and an analytical approach to emotions (Cameron, 2000; Markus & Kitayama, 1991). By contrast, Chinese mothers' focus on behavioral and moral standards may reflect Chinese culture's emphasis on regulating personal attributes in order to maintain group harmony (Markus & Kitayama, 1991; Weisz, Rothbaum, & Blackburn, 1984).

While the above-cited work has examined cultural differences based on ethnic or national groupings, few researchers have examined cultural differences in parental emotion discussion among individuals of the same ethnic group living in the same geographical region. Chinese American immigrants provide a unique opportunity to investigate cultural differences in parental

emotion discussion because although they share the same culture of origin and live in the same host country, there is considerable heterogeneity in immigrants' affiliation or contact with their ethnic/native and host cultures (Costigan & Koryzma, 2011; Lau, 2010; Miller, 2007). Thus, researchers can measure culture-related features (e.g., habits, practices, values) at the individual level and examine their associations to parents' emotion talk. This type of study can offer a refined view of the link of culture or cultural practices to parental emotion discussion. Moreover, because the potential confounding factors such as family socioeconomic status and language can be measured and controlled in the analyses, researchers can examine the relatively "pure" relations between cultural practices and parental emotion discussion.

### *Cultural Orientations Among Immigrants: Acculturation and Enculturation*

A unique experience of immigrants is the exposure to different sets of cultural beliefs, norms, and practices. Operationally, such experiences may be measured as *cultural orientations*, defined as "the degree to which individuals are influenced by and actively engage in the traditions, norms, and practices of a specific culture" (Tsai & Chentsova-Dutton, 2002, p. 95). Previous research and theories suggest that two types of processes or cultural orientations may be involved in immigrants' lives after migration: (a) acculturation, which is the process of adaptation to the mainstream or host culture, and (b) enculturation, which is the process of adaptation to the ethnic culture (Gonzales et al., 2008). For foreign-born immigrant parents, enculturation may also be conceptualized as their maintenance or loss of elements or practices of the ethnic culture. In contrast to unidimensional models of cultural orientations, which consider acculturation and enculturation to be opposite ends of one continuum, bi-dimensional models of cultural orientations view adaptation to the host culture and heritage culture maintenance as relatively independent processes (Zane & Mak, 2003). Thus, individuals may adhere highly to *both* cultures, and acculturation to the host culture does not necessarily diminish enculturation to the native or ethnic culture. Recent research has largely supported the applicability of bi-dimensional models to Asian American immigrants (Miller, 2007, 2010). Studies research also suggest that immigrants' cultural orientations may vary across different life domains such as behavioral practices (e.g., language use, media preferences, and social affiliations) and cultural values and beliefs (Miller, 2007; Schwartz, Unger, Zamboanga, & Szapocznik, 2010). Moreover, studies showed that the links between cultural orientations and individuals' adjustment differed by domains (e.g., behavioral practices vs. values; Birman, 2006; Costigan & Dokis, 2006). Thus, it is important to separate behavioral and value domains of cultural orientations when examining their associations to parenting behaviors.

As the first step to study the links of cultural orientations to immigrant parents' emotion talk, we focused on Chinese American parents' cultural orientations in behavioral domains including language proficiency, media use, and social affiliations (Chen & Lee, 1996; Chen & Tse, 2010). There are a number of potential mechanisms in which behavioral cultural practices might influence parents' emotion discussion. First, proficiencies in English and Chinese may provide parents with different sets of emotion vocabulary, as different languages vary in the amount of emotion words (Russell, 1991). Second, social interactions with Caucasian American friends and exposure to English media may be an important channel through which immigrant parents learn about the "Western" style of parenting (including emotion talk with children). By contrast, interactions with Chinese friends and exposure to Chinese media may reinforce immigrant parents' indigenous parenting practices. Third, behavioral practices in ethnic or host cultures may activate different sets of parenting beliefs (including beliefs about emotion and emotion socialization), which in turn influence parents' actual emotion socialization practices (Perez Rivera & Dunsmore, 2011). Although we did not examine mediating mechanisms in this study, testing the

relations between parents' behavioral cultural practices and emotion talk could be an initial step to understand the processes through which cultural contexts shape parental emotion socialization.

Existing research on immigrant Chinese parents in North America has revealed considerable heterogeneity in cultural orientations (acculturation and enculturation) within this group (Costigan & Koryzma, 2011; Lau, 2010). Moreover, individual differences in acculturation and/or enculturation have been associated with immigrant Chinese parents' psychological adjustment (Costigan & Koryzma, 2011), parenting practices (e.g., physical discipline; Lau, 2010), and parenting efficacy (Costigan & Koryzma, 2011). However, despite the aforementioned theory and empirical evidence on East-West cultural differences in parental emotion discussion, to our knowledge, no study has examined the relations between immigrant Chinese parents' cultural orientations and emotion discussion behaviors.

### *Potential Confounding Factors in the Relations Between Cultural Orientations and Parental Emotion Discussion*

There are reasons to believe that the language spoken during parent-child interactions might be associated with parents' emotion talk. First, every language presents a unique set of affective lexicon, which varies enormously in the quantity of emotion words (Russell, 1991). For example, there are 2,000 emotion words in the English language, while 750 exist in Taiwanese Chinese (Russell, 1991). Second, languages impose structure on the interpretation of emotions through grammar and syntax (Wierzbicka, 1995), which may also affect emotional discourse. Third, it has been hypothesized that the use of a particular language (e.g., Chinese) may activate a specific cultural belief system (e.g., Confucian values), which in turn affects the individual's self-concept and autobiographical memory (Wang, Shao, & Li, 2010). Consistent with this hypothesis, bilingual children who were interviewed in English provided more elaborate and self-focused self-descriptions and memory accounts than those who were interviewed in Chinese (Wang et al., 2010). Because immigrant parents' preference to use a particular language during parent-child interaction would also be correlated with their cultural orientations (as language preference is often considered an important indicator of cultural orientation, Schwartz et al., 2010), the language spoken in parent-child discussion may confound the relations between parents' cultural orientations and emotion discussion behaviors.

Socioeconomic status (SES) has been identified as a predictor of parents' discourse with young children. Likely due to the daily stressors associated with financial disadvantage, lower income parents are less likely to engage in socialization behaviors associated with children's adaptive functioning (Conger, Conger, Elder, & Lorenz, 1992). Studies have found that lower income parents converse less with their children (Hoff-Ginsburg, 1991), use more impoverished vocabulary (Hoff, 2003), and ask children fewer questions about their experiences (Wiley, Rose, Burger, & Miller, 1998). With regard to emotion talk in particular, the findings are more mixed. One study found that parents and children of lower socioeconomic status (SES) made fewer emotion-related references (Flannagan & Perese, 1998), whereas another study conducted with African American families found that maternal emotion discussion was unrelated to SES (Garner, 2006). In a study of Anglo and Hispanic families, while working-class and middle-class mothers did not differ in their overall frequency of emotion talk, a greater proportion of working mothers' emotion talk was delivered when attempting to shape children's behaviors (Eisenberg, 1996). Varied findings may be in part due to different measurements of SES. Thus, it may be necessary to clarify the influence of SES by separately assessing discrete factors (e.g., education and income) and their unique relations with maternal emotion talk. Furthermore, because SES has been associated with differing levels of acculturation among youths of immigrants (Matsunaga,

Hecht, Elek, & Ndiaye, 2010), SES might confound the relation between cultural orientations and parental emotion talk.

A number of child characteristics might also be associated with parents' emotion talk, including child gender and generation status. Child gender has been related to the frequency and content of parents' emotion talk (Adams, Kuebli, Boyle, & Fivush, 1995). In particular, parents used more emotion words with daughters than sons when discussing a past event (Kuebli & Fivush, 1992) and emphasized sadness more often with daughters (Fivush, Brotman, Buckner, & Goodman, 2000). Using similar methodology, another study found that though overall frequencies of emotion words used by mothers were comparable for girls and boys, mothers tended to provide explanations for emotions with sons while focusing on emotional states with daughters (Fivush, 1989). Although to our knowledge, no study has examined the relation of immigrant children's generational status to parental emotion socialization, studies have reported differences in general parenting practices between first- and second-generation Chinese immigrant children (e.g., Chao, 2001; Willgerodt & Thompson, 2005).

Based on the above review, it is important to control for parents' storytelling language, SES, and child demographic characteristics when examining the relations between cultural orientations and emotion talk. In addition to the above theory-suggested confounding factors, the length and elaborateness of storytelling may confound the relations between cultural orientations and emotion discussion, given that emotion talk may reflect overall maternal verbosity. Thus, the length and elaborateness of mothers' stories were also included as covariates in the analyses.

### *The Present Study*

There were two main goals of the present study. First, we assessed both the content and quality of mothers' emotion talk with children during a storytelling task. Given the rich and nuanced manner in which emotions can be discussed, we coded emotion talk with great specificity, which included measuring the frequency of positive and negative emotion words, emotion explanations and questions, mothers' self-reported emotions, statements referring to past emotional experiences, and rating the sophistication of emotion talk.

Second, we examined the associations between Chinese American immigrant mothers' Chinese and American cultural orientations in the behavioral domain and the content and quality of their emotion discussion with children. Based on the bi-dimensional model of cultural orientation, we expected Chinese American mothers' Chinese and American orientations in the behavioral domain to be relatively independently related to their emotion discussion. Specifically, based on previous cross-cultural studies on parental emotion discussion (Doan & Wang, 2010; Fivush & Wang, 2005; Wang, 2001), we expected mothers' Chinese orientation to be associated with lower sophistication in emotion talk and less emotion-related content in general, except when referencing negative emotions. We expected mothers' American orientation to be associated with higher sophistication in emotion talk, and more emotion-related content in general, especially with regard to explanations about emotions. We expected these associations to remain significant after controlling for potential confounding variables, including mother and child demographics, and the language, length, and elaborateness of storytelling.

## **Method**

### *Participants*

The sample came from the Wave 1 assessment of a larger longitudinal study on the psychological adjustment of 258 first- and second-generation Chinese American children (in first and



second grade at Wave 1) recruited from schools and neighborhoods in a large metropolitan area in the western United States. For the present study, 187 children (93 boys and 94 girls,  $M$  age = 7.3 years,  $SD = .7$ , age range = 5.8–9.1 years) and their mothers were included in the final analysis.

Initially, videotaped interactions of 229 children and their parents were coded and analyzed. Of the remaining 29 videos, 4 could not be coded because of technical difficulties, and 25 could not be coded due to language barriers (i.e., coders were unable to comprehend the Chinese dialects used by the participants). These 29 excluded families were compared to the families examined in the final analysis on key demographic variables. For parent and child age, there were no significant group differences. However, differences were found for socioeconomic variables; the excluded children came from families with lower per capita income (i.e., total family income divided by number of individuals in the household; Datta & Meerman, 1980),  $t(df = 41) = -4.19$ ,  $p < .001$ , and the excluded parents' education level was significantly lower,  $t(df = 208) = -3.29$ ,  $p < .01$ . Of the 229 coded parent-child interactions, 42 *father* and child interactions were excluded from the final analysis. Because previous research has demonstrated that mothers and fathers discuss emotions with their children in dissimilar ways (Fivush et al., 2000), only *mother* and child interactions were examined in this study. In comparison to the families examined in the final analysis, the excluded children and their fathers did not differ on any key demographic variable.

Among the 187 children included in the final analysis, 77% were born in the United States (second generation), and 90% came from two-parent families. Of the 187 mothers included in the final analysis ( $M$  age = 38.9 years,  $SD = 4.8$ , age range = 27.9 to 50.7 years), 99% were born outside the United States (first generation). Primarily, mothers were born in mainland China (74%), Hong Kong (11%), and Taiwan (3%). On average, mothers had spent 30% of their lives in the United States ( $M$  number of years in the United States = 11.6), and over 99% self-identified as Chinese rather than Chinese American. The mean number of years for mothers' education was 13.3 ( $SD = 2.2$ ). Families' estimated per capita income for the past year ( $M = \$12,078$ ,  $SD = \$8,613$ ) ranged from \$625 to \$50,000. Fifty-five percent of the children were eligible for free or reduced price lunches at school.

**Recruitment.** Chinese American immigrant families were recruited using a variety of recruitment strategies, including (a) on-site recruitment fairs at shopping centers and grocery stores within Asian and Chinese American communities (62.6% of the present sample), (b) distribution of flyers at public and private schools with a large proportion of Asian American students (19.8%), and (c) referrals from community organizations (e.g., afterschool programs, churches, nonprofit organizations) serving Chinese Americans (17.6%). Additionally, to ensure the representation of low SES participants in this study, staff focused recruitment efforts in low SES communities and oversampled families whose children qualified for free or reduced lunch at school. On study flyers and at the recruitment fairs, the project was described as a research study examining Chinese American children's psychological adjustment. Interested parents provided staff members with their phone number. Staff members conducted a follow-up prescreening phone interview to determine eligibility. The eligibility criteria included (a) the child was in first or second grade at the time of screening, (b) the child lived with at least one of his or her biological parents, (c) both biological parents were ethnic Chinese, (d) the child was either first generation (born outside the United States) or second generation (born in the United States with at least one foreign-born parent) Chinese American, and (e) the parent and child were able to understand and speak English or Chinese (Mandarin or Cantonese). Of the 380 children whose parents expressed an initial interest in the study, 353 were screened and 291 were found to be eligible. Of those who met the eligibility criteria, 258 children and their parents completed the assessment (including the 187 children and their mothers included in the present study).

## Procedure

**Assessment.** After written consent and assent was obtained from parent and child, a 2.5-hour laboratory assessment was conducted. The assessment procedures included parent and child interviews and questionnaires, child psychological testing, and videotaped parent-child interaction tasks. The present study used data from parent questionnaires (family demographics and cultural orientations) and the videotaped storytelling task. Trained graduate and undergraduate research assistants administered the assessments in participants' preferred language (English, Mandarin, or Cantonese). Parents were paid for their participation and children were given two small prizes.

## Measures

### Parental Emotion Discussion

**The storytelling task.** During the laboratory assessment, parents and children were asked to participate in a storytelling task. The picture book, "Frog, Where Are You?" (Mayer, 1969), was presented to the parent and child (who sat side-by-side) by a research assistant. The research assistant said to the parent, "I have a book for the two of you to read. This book has pictures but no words and we would like you to read it once to your child. Please speak in whatever language you would at home." It was then emphasized that the parent should be the one telling the story. Parent-child dyads were given a maximum of 10 minutes to complete the task, but no minimum time threshold was imposed. Parents and children were asked to ring a bell to signal completion.

"Frog, Where Are You?" contains 30 pages of black and white illustrations. It is about a young boy who journeys through the woods to find his runaway frog. Because the boy encounters various obstacles along the way, there are many opportunities to discuss emotions. This picture book has been used extensively in developmental research, primarily as a tool to assess children's linguistic skills (e.g., Slobin, 1996). However, it has also been used to examine adult's socialization strategies (e.g., Harkins, 1993; Pasupathi et al., 2002).

**Coding theme of parental emotion discussion.** Coding focused on the content and quality of parents' discussion of emotion in three ways. First, we counted and categorized all emotion words spoken by the parent. Second, we counted the number of emotion comments and questions directed by the parent. Third, we rated the quality of emotion discussion at 20-second intervals. The specific categories of behaviors coded were:

**Emotion words.** First, each emotion word uttered by the parent was counted. Emotion words were considered to be specific emotion states (e.g., happy, sad, angry, surprised, and afraid) and broad feeling states and moods (e.g., worried, confused, grumpy, and weird). Because most behavioral terms not only refer to an action but also imply an emotion (e.g., yell, sigh, and hug), only behavioral terms that denoted emotion were coded (e.g., annoy and frighten) to ensure uniformity in coding (for a similar approach to coding behavioral terms, see Dunn et al., 1987). We also coded emotion words that referred to feelings for someone or something (e.g., love, hate, care, and miss). Second, each counted emotion word was also categorized as either positive (e.g., happy, excited, and love) or negative (e.g., sad, frustrated, surprised,<sup>1</sup> and irritate).

**Emotion discussion comments and questions.** The frequencies of four types of emotion comments and questions were determined. It is important to note that we coded each utterance separately. Thus, even if one statement was repeated many times or a string of comments communicated one idea, they were all still counted separately. First, *linking* was coded as the total number of times when the parent linked the child's past emotional experiences to story elements (e.g., "you were sad too when you lost your pet turtle"). Second, *self-report of emotion* was coded as the total number of times parents reported on their own emotional experience during storytelling

(e.g., “I feel sorry for the little boy”). Third, *emotion question* was coded as the total number of times parents posed a question pertaining to emotions (e.g., “Do you think the boy cares a lot about the frog?”). Finally, *emotion explanation* was coded as the total number of times parents gave explanations about emotions (e.g., “The bees are angry because the boy hit the hive”).

*Quality of emotion discussion.* Coders rated the quality of mothers’ emotion talk for every 20-second segments of storytelling. Specifically, coders evaluated the quality of mothers’ emotion talk based on the level of details and sophistication, the amount of information delivered regarding emotions, and the degree to which mothers tried to engage the child in emotion discussion. The quality of emotion discussion was coded on a 5-point scale (1 = *no emotion discussion at all*, 2 = *one low display of emotion discussion*, 3 = *one display of emotion discussion that is mediocre in sophistication, or multiple low displays of emotion discussion*, 4 = *sophisticated emotion discussion*, 5 = *very sophisticated emotion discussion*). Examples of low displays of emotion discussion include simple statements that label emotions (e.g., “The boy is sad”) or asking a short question about emotion (e.g., “Why is the boy upset?”) but moving on before the child can answer. Examples of high or sophisticated displays of emotion discussion include detailed explanations or statements about emotion (e.g., “Maybe the boy grew up with the frog and had so many experiences with it, that’s why he is sad to see that the frog is gone” or “The owl is flying at them so fast, and it’s so big and mean, no wonder they are scared!”), and emotion statements that are accompanied by engaging nonverbal behaviors (e.g., the mother asks a question about emotion, points to specific content on the page to guide the child’s attention, and waits for the child to give a response).

Because the frequencies of specific emotion comments (emotion words, questions, and explanations) were already counted in other codes, one purpose of the quality of emotion discussion code was to distinguish between parents who displayed the same frequency of emotion comments but were different in the level of detail they used when discussing emotions. For example, the statements “The boy was scared by the owl” and “The boy was scared because the owl is so big and fast” would both have been counted as an emotion explanation. However, the second sentence gives a more detailed explanation of why emotions arise. Another distinction exists between the parent who discusses emotions casually and the parent who attempts to engage the child into the discussion about emotion. For example, one parent might ask the child, “Why does the boy look so frustrated?” but not wait for an answer before moving on to the next page. In contrast, the other parent might ask the same question, pause for the child to think, or even hint at possibilities by pointing to pictures on the page. Thus, rating the *quality* of emotion discussion was thought to capture these important distinctions.

Each segment was rated separately, and each utterance was treated as a discrete unit. If one utterance spanned into more than one 20-second segments, it was coded in each segment. If multiple emotion comments/questions/explanations occurred within one 20-second segment, coders considered all emotion utterances when rating the overall quality of emotion discussion for that segment (e.g., a segment with multiple low displays of emotion discussion would receive a score of 3, and a segment with one sophisticated display of emotion discussion would receive a score of 4). For data analyses, each mother’s ratings across all 20-second segments were averaged to obtain the composite score for quality of emotion discussion.

*Parents’ language used during storytelling.* Language was coded using a 5-point scale that ranged from -2 to 2: -2 represented the mothers who spoke solely in Chinese (Mandarin or Cantonese) during storytelling, -1 represented the mothers who spoke more Chinese than English, 0 represented the mother who used equal amounts of English and Chinese, 1 represented the mothers who spoke more English than Chinese, and 2 represented the mothers who spoke solely in English. Because it is common for immigrant parents to use a combination of native and second languages when communicating with children, especially during emotion-related communication (Pavlenko, 2004), the use of this scale is thought to best capture the variation in immigrant mothers’ language use during storytelling.

**Elaborateness of storytelling.** Coders rated the degree to which each mother elaborated on the story using a 5-point scale ranging from 1 (*very low on elaboration*) to 5 (*very high on elaboration*). In assigning the elaboration rating, coders considered the amount of detail, description, and content provided by the mother. For example, a mother who stated minimal descriptions about each page of the picture book (e.g., “The boy lost his frog.”) received a rating of 1, whereas a mother who provided detailed illustrations of each page (e.g., “Early in the morning, when the boy woke up, he looked across the room and gasped! His frog had disappeared during the night!”) received a rating of 5. Every mother received one elaboration code, which reflected the overall complexity of the story she narrated.

**Length of storytelling.** To rule out the possibility that cultural orientation is related to mothers’ general verbosity rather than the frequency of their emotion words in particular, the total time mothers spent in storytelling (in seconds) was measured (see Doan & Wang, 2010, for a similar approach). Length of storytelling was calculated as the difference between the end and start times. The start time was noted when the mother began telling the story, and the end time was noted when either mother or child rang the bell to signify completion of the task.

**Coding theme development and coder training.** The coding theme was adapted from an unpublished coding manual used by Nancy Eisenberg and colleagues at Arizona State University. Because the first goal of this study was to examine maternal emotion discussion with specificity, several new codes (linking to emotional experiences, self-report of emotion, emotion questions, and emotion explanations) were added to the manual. To establish intercoder reliability, five bilingual coders were initially trained on five videos to ensure consistent application of code definitions. After satisfactory reliability had been reached, coders were assigned to code videos in other languages. Because the majority of mothers spoke Cantonese during the task (132 out of 187), there were two main coders and one reliability coder for Cantonese videos. For English and Mandarin videos, there was one main coder and one reliability coder. Every video was coded independently by a main coder, while 30% of the videos were coded a second time by a reliability coder. For the counted codes (i.e., frequency of emotion talk behaviors), the interrater reliabilities were computed as Pearson correlations,  $r_s(ns = 53) = .74, .88, 1.00, .70, .88,$  and  $.63$ , for positive and negative emotion words, linking, self-report of emotion, emotion questions, and emotion explanations, respectively. For the categorical code (i.e., language used by mothers), the Kappa reliability was 1.00 with  $p < .001$ . For codes that are on interval scales (i.e., quality of emotion discussion, elaborateness of stories), interrater reliabilities were calculated as intraclass correlations (ICC) (Shrout & Fleiss, 1979): the ICCs =  $.76$  and  $.87$  for quality of emotion discussion and elaborateness of story, respectively.

**Parents’ Acculturation and Enculturation.** The English version and Chinese translation of the Culture and Social Acculturation Scale (CSAS; Chen & Lee, 1996, see also Chen & Tse, 2010) were used to measure parents’ self-reports of their own acculturation to the American culture and enculturation to the Chinese culture. The bidimensional CSAS consists of 32 items that belong to two subscales (American Orientation and Chinese Orientation) and has been used to study Chinese immigrant children and parents (Chen & Tse, 2010; Garrett-Peters & Fox, 2007). Regarding internal consistency, one study demonstrated alphas of  $.77$  and  $.59$  for parents’ American Orientation and Chinese Orientation subscales, respectively (Garrett-Peters & Fox, 2007). The CSAS items assess the level of social and behavioral adherence to the American and Chinese cultures in the domains of language fluency, media use, and social affiliations. For example, with regard to language, parents rated (from 1 = *extremely poor* to 7 = *very good*) their own fluency in English and Mandarin or Cantonese (e.g., “How well do you understand spoken English?”). With regard to media use, parents rated (from 1 = *almost never* to 6 = *almost every day*) how often they engaged in English and Chinese media (e.g., “How often do you read Chinese newspapers?”). To assess social affiliations, parents rated on a Likert-type scale their preferences regarding Caucasian American and Chinese friends (e.g., “How many Caucasian American

**Table 1.** Descriptive Statistics for the Full Sample ( $n = 187$ )

Variables	<i>M</i>	<i>SD</i>	Minimum	Maximum	Skewness	Kurtosis
Positive emotion words <sup>a</sup>	.81	1.45	0	12.00	3.72	21.1
Negative emotion words <sup>a</sup>	3.18	3.70	0	23.00	2.17	6.23
Linking <sup>a</sup>	.04	.20	0	1.00	4.56	18.96
Self-report of emotion <sup>a</sup>	.04	.23	0	2.00	5.85	37.55
Emotion questions <sup>a</sup>	.11	.43	0	3.00	4.67	24.38
Emotion explanations <sup>a</sup>	.19	.57	0	4.00	3.80	16.78
Quality of emotion discussion <sup>b</sup>	1.21	.20	1.00	2.00	1.45	2.47
Language during storytelling <sup>c</sup>	-1.09	1.42	-2.00	2.00	1.41	.47
Length of story <sup>d</sup>	313.62	131.69	120.00	600.00	.88	-.16
Elaborateness of story <sup>e</sup>	3.05	1.11	1.00	5.00	.88	-.16
American orientation <sup>f</sup>	.02	.60	-1.16	1.70	.44	-.23
Chinese orientation <sup>f</sup>	.005	.50	-1.98	1.15	-1.01	3.03
Per capita income	1,2078	8,613	625	50,000	1.35	2.04
Maternal education	13.29	2.23	7.00	20.00	.56	-.17
Mother's age	38.87	4.76	27.92	50.69	.16	-.60
Mother's length of stay in the United States	11.30	6.93	1.00	29.00	.66	-.19
Child age	7.35	.75	5.81	9.14	.18	-.81

a. Positive words, negative words, linking, self-report of emotion, emotion questions, and emotion explanations were measured using frequencies (e.g., total number of positive words uttered).

b. Quality of emotion discussion was rated on a 1 (*no emotion discussion*) to 5 (*very sophisticated emotion discussion*) scale for every 20 seconds, and the ratings across all 20-second segments were averaged to obtain the composite of quality of emotion discussion.

c. Language used during storytelling was rated based on a -2 (all Chinese) to 2 (all English) scale.

d. Length of story was recorded in seconds.

e. Elaborateness of story was rated on a 5-point scale from 1 (*very low*) to 5 (*very high*).

f. Chinese and American orientations were the averages of standardized item scores in the corresponding scales with high scores representing higher Chinese or American orientations.

friends do you have?") and American and Chinese restaurants and holidays. The composites for Chinese and American orientations were computed as the averages of standardized item scores in the corresponding subscales. For the present study, the alphas were .87 for the American Orientation subscale and .73 for the Chinese Orientation subscale.

## Results

Descriptive statistics are presented in Table 1. Of note, on average, mothers used more negative emotion words than positive emotion words. The length of story ranged from 2 minutes to 10 minutes and lasted 5.23 minutes on average. Two emotion discussion variables, linking and self-report of emotion, had means that were close to zero (.04). Examining the frequencies of these variables showed that the two types of parental emotion discussion behaviors were especially rare among our sample (96% of mothers did not display these two behaviors). Thus, both variables were dropped from subsequent analyses. The remaining variables were screened for normality. Using the cutoffs of 2 and 7 (absolute value) for high skewness and kurtosis suggested by West, Finch, and Curran (1995), four variables were positively skewed (i.e., positive emotion words, negative emotion words, emotion questions, and emotion explanations), and three variables had high kurtosis (i.e., positive emotion words, emotion questions, and emotion explanations).

**Table 2.** Correlations Between Study Variables and Demographics

	Child Age	Child Gender <sup>b</sup>	Child Generation Status <sup>c</sup>	Mother Age	Mother's Length of Stay in the United States	Maternal Education	Family Per Capita Income
Positive emotion words	-.12	-.01	.09	-.01	.15*	.27***	.24**
Negative emotion words	-.01	-.05	-.11	.001	-.02	-.004	.01
Emotion questions	-.08	-.05	.11	.06	.02	.25**	.10
Emotion explanations	.02	-.05	.10	.05	.09	.24**	.11
Quality of emotion discussion	.001	-.05	-.11	.02	-.02	.04	.05
Language used during storytelling <sup>a</sup>	-.10	.12	.18*	.01	.36***	.45***	.44***
Length of story	-.16*	.06	.07	-.04	.11	.07	.08
Elaborateness of story	-.06	-.01	-.04	-.02	-.08	.06	.09
American orientation	-.19*	.01	.15*	-.01	.31***	.57***	.51***
Chinese orientation	-.02	.13	.05	.07	-.06	-.07	-.07

Note. The correlations involving two continuous variables are Pearson product-moment correlations. The correlations between a continuous variable and a dichotomous variable (e.g., child gender and generation status) are point-biserial correlations.

a. Language used during storytelling was rated based on a -2 (all Chinese) to 2 (all English) scale.

b. Child gender was coded as 0 = girls, 1 = boys.

c. Child generation status was coded as 0 = first generation, 1 = second generation.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

These variables were then transformed using the square root transformation before running correlation and regression analyses.

### Correlation Analyses

**Correlations with demographic variables.** As shown in Table 2, mothers' length of stay in the United States was positively correlated with their use of positive emotion words and their American orientation, and their use of English in storytelling. In general, higher SES (i.e., maternal education and per capita income) was related to higher American orientation, increased emotion discussion, and higher use of English in storytelling. Mothers of older children told shorter stories and endorsed lower American orientation than mothers of younger children. Mothers of second-generation children endorsed higher American orientation and used more English during storytelling than mothers of first-generation children.

**Correlations among emotion discussion and cultural orientations.** As shown in Table 3, positive correlations were found among all of the emotion discussion variables. Mothers' American orientation was positively correlated with their use of positive emotion words and emotion explanations. Mothers' Chinese cultural orientation was negatively associated with their use of emotion questions, emotion explanations, and quality of emotion discussion. Storytelling language was correlated with positive emotion words and emotion explanations such that the mothers who used more English in storytelling scored higher on these two codes. Storytelling language was also associated with cultural orientations such that the mothers with higher Chinese orientation were more likely to use Chinese during storytelling, while mothers with higher American orientations were more likely to use English. While length of storytelling and elaborateness of story were both associated with increased emotion discussion, neither of the two variables was correlated with mothers' cultural orientations.

**Table 3.** Correlations Among Emotion Discussion and Cultural Orientation Variables

	1	2	3	4	5	6	7	8	9
1. Positive emotion words	—								
2. Negative emotion words	.34***	—							
3. Emotion questions	.33***	.16*	—						
4. Emotion explanations	.35***	.27***	.56***	—					
5. Quality of emotion discussion	.52***	.75***	.23**	.29***	—				
6. Language used during storytelling <sup>a</sup>	.25**	.03	.14	.20**	.10	—			
7. Length of story	.33***	.53***	.19*	.36***	.20**	.11	—		
8. Elaborateness of story	.23**	.46**	.16*	.26***	.26***	.11	.60***	—	
9. American orientation	.19**	.003	.11	.15*	.05	.54***	.05	.11	—
10. Chinese orientation	-.10	-.10	-.16*	-.17*	-.17*	-.27***	.01	-.01	-.02

a. Language used during storytelling was rated based on a -2 (all Chinese) to 2 (all English) scale.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

### Hierarchical Multiple Regression Analyses

To test the unique effects of mothers' Chinese and American cultural orientations on their emotion discussion behaviors controlling for demographic variables and other characteristics of mothers' storytelling (e.g., length and elaborateness of story, and language used in storytelling), five hierarchical multiple regressions were computed using SPSS 19.0. The criteria were the five emotion discussion variables (i.e., positive emotion words, negative emotion words, emotion explanations, emotion questions, and quality of emotion discussion). For covariates, we included all the demographic variables examined in Table 2, except for mothers' length of stay in the United States. Although mothers' length of stay in the United States was correlated with parents' emotion discussion, it was not included as a covariate because it overlaps conceptually with acculturation or American orientation and has often been used as a proximal index of acculturation in previous studies of immigrant populations (e.g., Lutsey et al., 2008). In addition, we included length and elaboration of storytelling and language used in storytelling as covariates. The predictors were entered in the following steps: (a) Step 1 (covariates), family per capital income, maternal education, mother's age, child gender, age, and generation status, mother's language used during storytelling, and the length and elaborateness of story, and (b) Step 2, mothers' American and Chinese orientations. In preliminary analyses, we also tested whether child gender or generation status (first vs. second generation) moderated the relations between mothers' cultural orientations and emotion discussion by entering the multiplicative terms between child gender or generation status and mothers' cultural orientations in the last step. None of the multiplicative terms were significant, indicating that moderation by child gender or generation status was not present.

The regression results for predicting positive and negative emotion words are reported in Table 4. For positive emotion words, length of story uniquely and positively predicted the use of positive emotion words. Moreover, language use marginally predicted positive emotion words such that higher use of English in storytelling was associated with greater use of positive emotion words. At Step 2, neither of the cultural orientation variables uniquely predicted the criterion. For the regression predicting negative emotion words, child's generation status negatively predicted negative emotion words such that mothers of second-generation Chinese American children used fewer negative emotion words than mothers of first-generation children. Moreover, child gender

**Table 4.** Hierarchical Regressions Predicting Mothers' Use of Positive and Negative Emotion Words

Predictors	Criterion Variables					
	Positive Emotion Words			Negative Emotion Words		
	B	$\beta$	$\Delta R^2$	B	$\beta$	$\Delta R^2$
Step 1			.20***			.34***
Family per capita income	.00	.07		.00	.02	
Maternal education	.05	.15		-.01	-.02	
Mother age	.00	.03		.00	-.02	
Child gender (0 = girls, 1 = boys)	-.07	-.05		-.24 <sup>+</sup>	-.12	
Child age	-.04	-.04		.06	.05	
Child generation status (0 = first, 1 = second)	.06	.04		-.34*	-.14	
Language used during storytelling <sup>a</sup>	.08 <sup>+</sup>	.16		.01	.02	
Length of story	.001**	.24		.003***	.43	
Elaborateness of story	.04	.06		.18*	.19	
Step 2			.01			.01
Family per capita income	.00	.07		.00	.01	
Maternal education	.05 <sup>+</sup>	.16		-.01	-.02	
Mother's age	.001	.03		-.001	-.02	
Child gender (0 = girls, 1 = boys)	-.05	-.03		-.20	-.10	
Child age	-.05	-.05		.06	.04	
Child generation status (0 = first, 1 = second)	.08	.05		-.32 <sup>+</sup>	-.13	
Language used during storytelling <sup>a</sup>	.06	.12		-.02	-.02	
Length of story	.001*	.23		.003***	.43	
Elaborateness of story	.04	.06		.18*	.20	
American orientation	-.02	-.02		.03	.02	
Chinese orientation	-.15	-.10		-.20	-.10	
Total R <sup>2</sup>			.21***			.35***

a. Language used during storytelling was rated based on a -2 (all Chinese) to 2 (all English) scale.  
<sup>+</sup> $p < .1$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

marginally predicted negative emotion words such that mothers of boys used fewer negative emotion words than mothers of girls. In addition, length of story and elaborateness of story positively predicted the use of negative emotion words such that the longer and more elaborative the stories, the greater the use of negative emotion words. However, in Step 2, neither American nor Chinese cultural orientation uniquely predicted negative emotion words.

The regression results for predicting emotion questions, emotion explanation, and the quality of emotion discussion are reported in Table 5. For the regression predicting emotion questions, maternal education positively predicted the use of emotion questions at Step 1. At Step 2, adding the two cultural orientations marginally improved the prediction ( $\Delta R^2 = .03, p = .06$ ). Specifically, mothers' Chinese orientation significantly predicted their lower use of emotion questions. For the regression predicting emotion explanations, maternal education and length of story positively predicted the use of emotion explanations at Step 1. Moreover, child age marginally and positively predicted the use of emotion explanations. At Step 2, adding the cultural orientations significantly improved the prediction ( $\Delta R^2 = .03, p = .05$ ). Specifically, mothers' Chinese orientation significantly predicted their lower use of emotion explanations. Finally, for the regression predicting the quality of emotion discussion, at Step 1, child generation status negatively predicted



**Table 5.** Hierarchical Regressions Predicting Mothers' Use of Emotion Questions, Emotion Explanations, and Quality of Emotion Discussion

Predictor	Criterion Variables								
	Emotion Questions			Emotion Explanations			Quality of Emotion Discussion		
	B	$\beta$	$\Delta R^2$	B	$\beta$	$\Delta R^2$	B	$\beta$	$\Delta R^2$
Step 1			.10 <sup>+</sup>			.20 <sup>***</sup>			.12 <sup>*</sup>
Family per capita income	-.00	-.09		-.00	-.08		.00	.03	
Maternal education	.03 <sup>*</sup>	.24		.04 <sup>*</sup>	.20		-.001	-.01	
Mother age	.00	.01		-.00	-.01		.00	-.08	
Child gender (0 = girls, 1 = boys)	-.04	-.06		-.06	-.08		-.04	-.11	
Child age	.001	.003		.08 <sup>+</sup>	.14		.00	.01	
Child generation status (0 = first, 1 = second)	.05	.07		.04	.04		-.08 <sup>*</sup>	-.16	
Language used during storytelling <sup>a</sup>	.02	.07		.04	.14		.02	.12	
Length of story	.00	.09		.001 <sup>**</sup>	.31		.000	.10	
Elaborateness of story	.02	.08		.02	.05		.03 <sup>+</sup>	.18	
Step 2			.03 <sup>+</sup>			.03 <sup>*</sup>			.03 <sup>+</sup>
Family per capita income	.00	-.09		.00	-.10		.00	.02	
Maternal education	.04 <sup>*</sup>	.26		.04 <sup>*</sup>	.19		.00	.004	
Mother age	.00	.003		.00	-.02		.00	-.08	
Child gender	-.02	-.03		-.04	-.05		-.03	-.08	
Child age	-.002	-.01		.08 <sup>+</sup>	.14		.001	.01	
Child generation status (0 = first, 1 = second)	.07	.09		.06	.06		-.07 <sup>+</sup>	-.14	
Language used during storytelling <sup>a</sup>	.00	.002		.01	.05		.01	.06	
Length of story	.00	.08		.001 <sup>**</sup>	.31		.00	-.08	
Elaborateness of story	.02	.08		.02	.05		.03 <sup>+</sup>	.18	
American orientation	-.003	-.01		.06	.09		.005	.01	
Chinese orientation	-.12 <sup>*</sup>	-.19		-.15 <sup>*</sup>	-.18		-.07 <sup>*</sup>	-.18	
Total R <sup>2</sup>			.13 <sup>*</sup>			.23 <sup>***</sup>			.14 <sup>**</sup>

a. Language used during storytelling was rated based on a -2 (all Chinese) to 2 (all English) scale.  
<sup>+</sup>p < .10. <sup>\*</sup>p < .05. <sup>\*\*</sup>p < .01. <sup>\*\*\*</sup>p < .001.

quality of emotion discussion such that mothers of second-generation children scored lower on quality of emotion discussion than mothers of first-generation children. Moreover, elaborateness of story marginally predicted the quality of emotion discussion such that more elaborate stories were associated with higher emotion discussion. At Step 2, adding the cultural orientation variables marginally improved the prediction ( $\Delta R^2 = .03$ ,  $p = .07$ ). Specifically, mothers' Chinese orientation significantly predicted a lower quality of emotion discussion.

## Discussion

To our knowledge, this was the first study to examine the content and quality of Chinese American immigrant mothers' emotion discussion with children and their relations to mothers'

cultural orientations. Consistent with our hypotheses, we found that Chinese American immigrant mothers' Chinese orientation was negatively associated with the frequencies of their use of emotion questions and emotion explanations, as well as the quality of emotion discussion in storytelling. These associations remained significant after controlling for mothers' American orientation, mother and child demographic characteristics, and the length, elaborateness, and language of storytelling. By contrast, while mothers' American orientation was positively correlated with their use of positive emotion words and emotion explanations, these associations disappeared after controlling for other predictors. These findings present a nuanced picture of the differential relations of cultural orientations to specific aspects of mothers' emotion talk.

### *The Content and Quality of Chinese American Mothers' Emotion Discussion*

Descriptive analysis revealed that self-report of emotion and statements linking children's past emotion experiences to story elements occurred extremely rarely in this sample. There are two possible explanations for the low variance on these variables. First, the nature of the task may not have been conducive for the parents to engage in these kinds of emotion discussion behavior. The mothers were asked to narrate a picture book, which could have been too structured to allow for spontaneous self-report of emotions or recalling of children's past experiences. Second, it is possible that Chinese American parents are generally unlikely to share their own emotions or link present experiences to children's past emotional experiences. Indeed, scholars have argued that a self-reflective style of emotional functioning (characterized by identifying one's own emotions) and an emotionally elaborative approach are especially valued in Western culture (Cameron, 2000; Wang, 2001; Wierzbicka, 1999).

Correlation analyses showed that all emotion discussion variables were positively associated with each other. Naturally, because parents must use emotion words when posing questions or providing explanations about emotions, emotion questions and explanations were positively related to the use of positive and negative emotions. Moreover, parents seemed to have utilized the full spectrum of emotion words, although they did use negative emotion words more often. This is somewhat consistent with Lagattuta and Wellman's (2002) finding that parent-child discourse about negative emotions had a more extensive emotion vocabulary than their conversations about positive emotions. Moreover, stories were rated as richer in emotion discussion when mothers used more positive or negative emotion words, asked more emotion-related questions, and provided more explanations on the causes and consequences of emotions.

### *Relations of Cultural Orientations to Mothers' Emotion Talk*

Hierarchical regression analyses indicated that enculturation to the *Chinese* culture in particular was a consistent predictor of mothers' emotion discussion while controlling for covariates. As predicted, higher maternal affiliation with Chinese culture predicted fewer emotion questions, fewer emotion explanations, and less sophisticated emotion discussion overall. Although this study did not investigate the discussion of behaviors, our findings generally mirror previous studies, which showed that Chinese and Chinese American mothers tend to focus on behaviors while American mothers tend to discuss thoughts and emotions (Doan & Wang, 2010; Fivush & Wang, 2005). Because our acculturation and enculturation measure primarily taps into immigrants' behavioral cultural practices (including language fluency, media use, and social affiliations), our findings suggest that behavioral cultural practices may shape immigrant parents' styles of emotion discussion with children. An important direction of future research is to understand the mediating processes through which behavioral cultural practices shape parental emotion discussions. For example, it would be interesting to examine whether immigrant parents'

native and second language proficiencies are associated with their emotion vocabulary in two languages, which in turn relate to their use of emotion words in conversations with children. Similarly, one could examine whether cultural practices in host and ethnic cultures are differentially associated with parents' beliefs about emotion and emotion socialization, which in turn relate to their emotion socialization practices. In addition, future studies should further examine the relations between private domains of cultural orientations (e.g., endorsement of cultural values and beliefs) and parents' emotion talk.

Partly consistent with the theory that Western culture emphasizes an elaborative and self-reflective approach to emotions (Cameron, 2000; Wierzbicka, 1999), our correlational analyses revealed that immigrant Chinese American mothers' acculturation to the American culture was positively associated with their use of positive emotion words and emotion explanations. This pattern of findings is consistent with research indicating that mainstream American culture regards constant positive affect as the norm (Wierzbicka, 1994). Relatedly, the work of Matsumoto et al. (e.g., Matsumoto et al., 2008; Safdar et al., 2009) suggests that cultural differences in emotional expressivity may be explained by differences in emotional display rules, which are guided by cultural norms. However, mothers' American orientation did not uniquely predict their use of positive emotion words or emotion explanations after controlling for other predictors. The lack of unique associations between American orientation and emotion talk might be due to two possibilities. First, it is likely that Chinese cultural orientation is more salient in sculpting first-generation immigrant Chinese American mothers' emotion talk than American orientation. Although previous studies revealed that American mothers were more focused on emotions than Chinese or Chinese American mothers (e.g., Doan & Wang, 2010), the cross-group comparisons cannot reveal specific cultural processes. Because mothers' American and Chinese cultural orientations were directly assessed in our study, we were able to examine their unique relations to mothers' emotion talk. The multiple relations found between Chinese cultural orientation and decreased emotion talk suggests that it may be the Chinese cultural orientation that dampens emotion talk, rather than the American cultural orientation that amplifies it. Alternatively, because correlation analyses indicated that Chinese American mothers who were more educated tended to speak English during storytelling and endorsed higher American orientation than the less educated mothers, it is possible that shared variance among the American cultural orientation, maternal education level, and the language used during storytelling weakened the unique prediction by American orientation.

Of note, the frequency of negative emotion words was unrelated to cultural orientation, language used during storytelling, or demographic variables. Although child generation status predicted negative emotion words in regression analyses, this might be a suppression effect because the zero-order correlation between child generation status and negative emotion words was non-significant. The lack of associations between negative emotion words and other variables in the study is unlikely due to the lack of variance or restricted range, as negative emotion words had a larger variance and range than positive emotion words (see Table 1). Null findings for negative words are interesting given researchers' assertion that children's experience and expression of negative emotions are especially subject to socialization efforts (Eisenberg et al., 1998; Lagattuta & Wellman, 2002), which are shaped by culture (Cole et al., 2006). As mentioned previously, Fivush and Wang (2005) found that Chinese mothers used more negative emotion words than American mothers when talking about past events. The authors argued that because Chinese mothers appeared more interested in teaching children proper social conduct, they discussed negative emotions more frequently since negative emotions are not always appropriate to display. Key differences in methodology may explain why a similar result for negative emotion words was not found in the present study. In Fivush and Wang (2005), parents were asked to discuss their child's best and worst experiences. In the present study, parents were asked

to narrate a picture book to their child. Speaking about a past experience may provide more opportunities to discuss negative emotions than telling a story based on a set of pictures. Thus, cultural influences on discussion of negative emotions may be more observable when conversation content is directly related to the child's daily life.

Importantly, the effect sizes for the links between cultural orientations and parents' observed emotion discussion estimated from the study are small: the correlations were in the "small" range (Cohen, 1988) and cultural orientations accounted for about 3% of variances in emotion discussions above and beyond the covariates. Like other emotion socialization practices, parents' emotion discussion is theorized to be influenced by many contextual (e.g., degree of emotion in context), parent (e.g., personality, parental goals), and child characteristics (e.g., temperament) besides cultural orientations (Eisenberg et al., 1998). Future research should continue to investigate how multiple contextual and individual factors jointly influence parental emotion discussion.

In examining the unique relations of multiple factors to mothers' emotion talk, we discovered an important distinction between the two SES predictors (maternal education and family income). Although increased maternal education predicted more positive emotion words, emotion questions, and emotion explanations, family per capita income did not uniquely predict emotion discussion. This finding indicates that education may be a more salient factor affecting parents' emotion talk than family income.

### *Limitations and Implications*

This study has several limitations. First, although using a picture book enabled a more standardized approach to assessment, it may have somewhat limited parents' emotion discussion. Unlike previous studies in which parents and children were instructed to speak about a past emotional event, the task used in the present study did not explicitly instruct parents to discuss emotions with children, although it did elicit a wide range of emotion discussion behaviors among mothers. Nonetheless, future research should try to assess parents' discussion of emotion in both laboratory and naturalistic settings as well as include self-reported data. Second, we categorized emotion words into only two categories: positive and negative. However, speaking about specific emotions (e.g., anger vs. sadness) can represent very different socialization processes (Fivush, 1993), and thus, they may have different cultural antecedents. Future studies could examine the relations of cultural orientations to parents' discussion of specific emotions. Third, due to the small number of father participants in the larger sample, this study only examined mothers' emotion talk. Because fathers also play a critical role in children's emotion socialization (Chaplin, Cole, & Zahn-Waxler, 2005), future studies should examine fathers' emotion talk with children. Fourth, because the present study is correlational and cross-sectional, the direction of the relations between cultural orientations and parental emotion talk cannot be tested. While it is possible that immigrant parents' cultural practices shape their emotion discussion, it is also possible that parents' styles of emotion discussion influence their tendency to engage in different cultural practices (e.g., an emotionally expressive parent might prefer to use English media or interact with non-Chinese friends). Future research can use longitudinal or experimental designs to conduct a more stringent test of the directional relations between cultural orientation and emotion talk. Fifth, we only investigated behavioral domain of mothers' cultural orientations. Because values and beliefs are also important components of cultural orientation, an important direction of future research is how cultural values and beliefs are associated with emotion-related parenting practices.

Despite these limitations, the present study has implications for the development and cultural adaptation of parent training interventions for children from Chinese or Asian immigrant families. Because parental emotion discussion is shown to be a critical emotion-related socialization

practice that can shape children's socioemotional competence (Eisenberg et al., 1998), a number of evidence-based parent-training interventions include components that teach parents how to engage in "emotion coaching" during parent-child interactions (e.g., Incredible Years, and New Beginnings, see Briesmeister & Schaefer, 2007). The findings of this study, together with previous cross-cultural research, suggest that parents of Chinese or Asian backgrounds may be unfamiliar with or unready to adopt a discourse style that is rich and elaborative in emotion discussion (i.e., one that includes frequent use of emotion words, labeling feelings, linking to past emotions, and eliciting questions and providing explanations about emotions). Thus, clinicians should be aware that immigrant parents may encounter additional obstacles and thus need extra support when learning these skills.

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### Note

1. Although surprise is considered neither inherently positive nor negative by researchers (Ortony & Turner, 1990), we coded surprise words as negative emotion words given the content of the picture book used in the study. The potential surprise emotions that can be discussed in this storybook are predominantly negative (e.g., the boy awakes to find his pet missing, is carried off unwillingly by a deer after mistaking its antlers for branches, and falls backwards into a pond). Of note, inclusion and exclusion of surprise words within the negative words category yielded comparable results in the regression analysis.

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