Published in final edited form as:
Cogn Dev. 2010 ; 25(4): 380–393. doi:10.1016/j.cogdev.2010.08.007.

Talking about Internal States in Mother-Child Reminiscing Influences Children's Self-Representations: A Cross-Cultural Study

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Abstract

This study examined the relation of mother-child discussions of internal states during reminiscing to the development of trait and evaluative self-representations in 131 European American and Chinese immigrant 3-year-olds. Mothers and children discussed one positive and one negative event, and children were interviewed for self-descriptions. Euro-American mothers and children made more references to internal states and focused more on causal talk than did Chinese, and Euro-American children were more likely than Chinese children to describe their own traits and evaluative characteristics. Mothers' and children's use of internal state language during reminiscing of the negative event uniquely predicted children's trait and evaluative self-representations, independent of culture. Explanations of internal states and conversing in the negative event context were particularly effective in predicting children's self-representations. Discussions of internal states further mediated cultural influences on children's self-representations. The findings provide new insight into the contribution of parent-child reminiscing to the development of self.

Talking about internal states such as emotions, desires, and subjective evaluations has attracted a great deal of research attention in recent years (see Fivush & Baker-Ward, 2005). It has been found to play an important role in the development of a variety of social-cognitive skills including theory of mind (Adrián, Clemente, & Villanueva, 2007; Slaughter, Peterson, & Mackintosh, 2007), emotion knowledge (Taumoepeau & Ruffman, 2006), prosocial behavior and positive relationships (Laible, 2004), and self-understanding (Reese, Bird, & Tripp, 2007; Welch-Ross, Fasig, & Farrar, 1999). Parent-child reminiscing of shared experiences provides a particularly effective context for such discussions. During memory sharing, parents and children are not in the heat of the moment and may be better able to reflect on the causes and consequences of children's thoughts and feelings (Bird & Reese, 2006; Fivush, 2007; Fivush, Berlin, Sales, Mennuti-Washburn, & Cassidy, 2003; Reese et al., 2007; Welch-Ross et al, 1999). Against this backdrop, the present study examines the link between mother-child discussions of internal states during reminiscing and the development of two kinds of self-representations, namely, trait and self-evaluation, in European American and Chinese 3-year-olds.

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Self-Representations in Early Childhood

In ontogeny, a cognitive sense of self emerges around age 2 and mental representations of the self continue to increase in complexity, integration, and differentiation across the preschool years (see Harter, 1998). One important aspect of the development of self-representations is to form higher-order concepts, that is, trait labels, based on the integration of more specific behavioral features and attributes of the self (Harter, 1998; Higgins, 1991). For instance, the generalization that one is happy derives from observations of happiness that the self has experienced across various contexts or situations. Although the ability to form higher-order generalizations and to use trait labels to describe oneself is characteristic of self-representations in middle to late childhood, the rudimentary forms can be observed in toddlerhood to early childhood (Bretherton & Beeghly, 1982; Harter, 1998; Ruble & Dweck, 1995). Specifically, while self-representations in toddlers and young preschoolers often focus on concrete, observable features (e.g., “I can dance” and “I ride in my truck”), children in this age period start to show some understanding of their physical (e.g., “I’m strong”), social (e.g., “I’m nice”), and psychological attributes (e.g., “I’m happy”). Such self-representations are often isolated and lack of coordination, given the cognitive limitations at this stage. Still, they form the developmental basis of the integrated and coherent self-portrait in older children.

Another important aspect of the development of self-representations is to form evaluations of the self. Research has shown that by around 30 months most children have come to develop an evaluative self-awareness, which is reflected in their understanding of norm violations (e.g., broken toys), use of evaluative words (e.g., “dirty”), and references to competencies (e.g., “I can”; Lewis, 2000; Stipek, Gralinski, & Kopp, 1990). Due to cognitive limitations of this period, such as the inability to use social comparison information to assess one’s own competence, the early evaluative representations of the self in relation to the social and physical world are still rudimentary and often unrealistic or even inaccurate (Frey & Ruble, 1990; Harter, 1998). Nonetheless, they may serve as a self-referential frame for children to understand and represent personal experiences that can further shape and solidify the self (Wang, 2006; Welch-Ross, 2001).

The early development of self-representations has been attributed to, in addition to cognitive advances, children’s increasingly rich and complex social experiences (Harter, 1998; Nelson & Fivush, 2004). Recent research has further suggested that one type of social experience may play a particularly important role in shaping children’s understanding of themselves, namely, talking about internal states during parent-child reminiscing.

Discussions of Internal States during Reminiscing

Parent-child reminiscing of the shared past entails an active meaning-making process from which children form theories of themselves (Fivush, 2007; Miller & Mangelsdorf, 2005; Nelson & Fivush, 2004). In particular, when discussing past events, especially those that are emotionally salient, parents and children often refer to emotional-evaluative information such as thoughts, desires, and affect (e.g., “You had fun!”; Fivush & Baker-Ward, 2005). Such references to internal states help children reflect on their subjective feelings and evaluations (e.g., “I had fun”) and further highlight the personal meaning and significance of the past event (Fivush, 1994, 2007).

The few studies to date have examined the relation between parent-child discussions of internal states during reminiscing of emotional events and children’s self-development. It was found that the emotional and evaluative content of reminiscing predicted self-concept consistency in children as young as age 3.5 (Welch-Ross et al, 1999) and up to 6 years (Bird & Reese, 2006), the development of moral self and global self-worth in young grade-school

children (Reese et al., 2007), and self-esteem and perceived social and academic competence in preadolescents (Bohanek, Marin, & Fivush, 2008; Marin, Bohanek, & Fivush, 2008). Furthermore, the quality of discussion matters such that children's self-knowledge was more frequently associated with explanations of the causes and consequences of their past internal states, particularly in the negative event context, compared with mere attributions of the internal states to the child (Bird & Reese, 2006; Marin et al., 2008; Reese et al., 2007).

No study to date has directly examined discussions of internal states during parent-child reminiscing in relation to children's developing trait self and evaluative self, despite that the two kinds of self-representations constitute important aspects of self-development (Harter, 1998). During reminiscing of past emotional events, children are often exposed to considerable descriptive and evaluative labels pertaining to their thoughts and feelings (e.g., "You were so happy at the party") and to discussions of the causes and consequences of these internal states (Bauer, Stark, Lukowski, Rademacher, Van Abbema, & Ackil, 2005; Bird & Reese, 2006; Fivush, 1994; Fivush et al., 2003; Reese et al., 2007; Welch-Ross et al, 1999). Children may later incorporate these labels into their own representations of self-traits (e.g., "I'm happy"). They may also learn to interpret the personal meaning of past experiences from their own perspectives and internalize the emotional-evaluative information parents provide to form evaluations of themselves (Fivush, 1994, 2007; Harter, 1998; Nelson, 1989; Wellman & Lagattuta, 2000). Importantly, parent-child reminiscing takes place in the larger cultural context that embeds prescribed values and goals about the self.

Socialization of the Self in Cultural Contexts

Recent research has shown that the content and style of parent-child reminiscing differ across cultures, reflecting cultural values and goals pertaining to the self (Miller, Fung, & Koven, 2007; Wang & Brockmeier, 2002). Euro-American parents often engage their children in elaborate memory conversations that contain frequent references to and explanations of the child's thoughts and feelings, consistent with the cultural emphasis on individuality and an autonomous sense of self. In contrast, parents in East Asian cultures such as Korea and China often employ a pragmatic conversational style that focuses on group activities, social interactions, and behavioral discipline, which is in line with the cultural emphasis on self-other relatedness and a sense of belonging (Mullen & Yi, 1998; Wang, 2001; Wang & Fivush, 2005). The more frequent discussions of internal states in Euro-American parent-child reminiscing may facilitate better development of trait and evaluative self-representations in Euro-American children, when compared with their East Asian counterparts.

A recent study examined the development of self-representations in 4-, 6-, and 8-year-old Euro-American and Chinese children (Wang, 2004). Children were interviewed for self-descriptions in response to open-ended questions. It was found that across all age groups, Euro-American children referred more frequently to trait characteristics and provided more evaluative descriptions of themselves (positive and negative descriptions combined) than did Chinese children. Whether the early emergence of cultural differences in trait and evaluative self-representations is due to differing reminiscing practices across cultures is yet to be investigated.

The Present Study

A major purpose of the study is to examine the relation of mother-child talking about internal states during reminiscing to the development of trait and evaluative self-representations in children of 2.5 to 3.5 years of age, a period when the two kinds of self-representations start to emerge. Mothers and children from European American families and

first-generation Chinese immigrant families in the U.S. participated. Situated in a cross-cultural context, the study further tests whether discussions of internal states function as a generative mechanism that mediates cultural influences on children's developing self-representations.

Another purpose of the study is to examine the differential effects of talking about internal states as a function of the quality of discussion and the emotional valence of the past event. Prior research has shown that explanations of the causes and consequences of internal states are particularly facilitative to the development of self-understanding (Bird & Reese, 2006; Reese et al., 2007). Such causal talk most likely helps children understand how and why an event occurred and learn about the personal meaning of the event. Furthermore, compared with reminiscing of positive events, parent-child reminiscing of negative events often elicits more elaborate discussions of the child's thoughts and emotions and focuses more on causal talk, and may thus serve as a particularly salient context through which children develop knowledge about themselves (Ackil, Van Abbema, & Bauer, 2003; Bird & Reese, 2006; Fivush et al., 2003; Sales, Fivush, & Peterson, 2003; Wang & Fivush, 2005).

Notably, it is a methodological challenge to measure self-representations in young children given their linguistic and cognitive constraints. There is further a dilemma among self researchers in choosing between structured, psychometric measures and unstructured, open-ended questions. While the former allows researchers to examine the dimensions of self-representations in line with their theories, the latter helps researchers identify important aspects of self- representations from the children's own perspectives (see Hart & Edelstein, 1992, for a detailed discussion). In a cross-cultural context, open-ended techniques are often preferred given that children's responses are less likely to be influenced by preexisting, possibly culturally biased, assumptions (Shweder, Goodnow, Hatano, LeVine, Markus, & Miller, 1998). Keller, Ford, and Meacham (1978) developed an open-ended task to assess self-representations in preschool children as young as age 3. Children were told that the researcher would like to write "something" about them and were asked to contribute. Compared with other open-ended techniques such as the "Who-Are-You" method, this task is simpler, more fun, and thus more appropriate for young children. It has later been used with both Chinese and European American preschoolers (Wang, 2004). In the present study, we adapted this task and further simplified it by situating it in a story-telling context.

Based on previous cross-cultural findings (Mullen & Yi, 1998; Wang, 2001; Wang & Fivush, 2005), we expected that Euro-American mother-child pairs would make more references to internal states during reminiscing and focus more on causal talk than would Chinese mother-child pairs. We also expected Euro-American children to score higher on trait and evaluative self-representations than Chinese children, consistent with previous findings (Wang, 2004). Independent of culture, mother-child discussions of internal states during reminiscing would be associated with more advanced trait and evaluative self-representations in children. Talking about internal states would further serve as a mediator in explaining cultural differences in children's self-representations. Furthermore, we predicted that explanations of internal states, particularly in the negative event context, would better predict children's trait and evaluative self-representations than would other types of discussions or in the positive event context.

Method

Participants

Sixty Chinese immigrant (30 girls; mean age = 35.00 months; range = 30 to 43 months) and 71 European American children (34 girls; mean age = 35.49 months; range = 30 to 42 months) and their mothers from upstate New York participated. Children were recruited

through local nursery schools and by word of mouth, and were taking part in a larger longitudinal study of early memory development. All children came from middle-class families and the majority of mothers and fathers had college education or beyond. Families were compensated for their participation. The Chinese immigrant families were originally from Mainland China, Taiwan, and Hong Kong, with 80% of the children born in the U.S.

Procedure

Two female researchers visited the families. English-Chinese bilingual researchers visited the Chinese immigrant families and interviewed children in the language children preferred. The majority of immigrant children spoke Chinese and a few of them spoke English and Chinese interchangeably. All materials were written in both English and Chinese and a translation and back-translation procedure was carried out to ensure their equivalence in both literal and sense meaning. Mother-child interactions were first observed in a series of free play and semi-structured tasks, followed by an interviewer-child session, which were all video tape-recorded. The tasks relevant to the present paper are described below.

Mother-child reminiscing—This is part of the semi-structured tasks. Mothers were asked to talk with their children about two specific, one-time events in which mother and child had both participated. To elicit discussion of emotions, thoughts, and evaluations, mothers were asked to select two emotionally salient events that took place recently, one emotionally positive to the child, and one emotionally negative, following prior research (Fivush, Berlin, Sales, Mennuti-Washburn, & Cassidy, 2003; Reese et al., 2007; Wang & Fivush, 2005). It was emphasized that mothers should talk with their children about the past events as they usually would for as long as they wanted. The sequence of talking about positive and negative events was counterbalanced. This task took approximately 20 minutes. The researchers remained in the room to operate the video camera unobtrusively when the mother and child conversed. Examples of the past events discussed include a trip to the pumpkin patch or sledding with a friend for the positive event, and the lost of a special toy or being hit by another child for the negative event. A few mother-child pairs did not discuss a specific, one-time episode for the positive (N=2) or negative event (N=6). They were excluded form relevant analysis.

Child self-description—Children were interviewed for self-descriptions in an open-ended task adapted from prior research (Keller et al., 1978; Wang, 2004). The interviewer told the child, “(Child’s name), I would like to write a story about you, to write a story that will tell about (Child’s name). What’s the first thing I should put in the story?” She prompted the child after each response, “And what else should I write to tell about you?” until the child indicated by speech or gesture that he or she was finished. This task lasted approximately 10 minutes. Because this was the last task of the interview session, some children (N=15) did not complete it due to fatigue or reluctance to continue. They were excluded from relevant analysis.

Child language skills—During the interviewer-child session, mothers filled out a shortened version of the Child Development Inventory (CDI) (Ireton, 1992) that assessed children’s language production and comprehension (Cronbach’s $\alpha = .93$; possible score range 0–100).

Coding

The data were coded using Noldus The Observer® 5.0 program, a digital coding system designed to score video materials online and enter the codes directly into a computer (Noldus, 2003). Coding was performed in the original languages. Proposition was used as the coding unit for both mother-child reminiscing and child self-description codes, unless

otherwise noted. Proposition is defined as a subject-verb construction (in Chinese, 主谓结构), with each unique or implied verb in an independent clause forming a new propositional unit (e.g., "I splashed the soybean milk;" Fivush, Haden, & Adam, 1995).

Reminiscing codes—The coding focused on mother-child discussions pertaining to internal states. Maternal and child utterances were coded independently for the same codes. Following previous research, references to the child's emotions, thoughts, desires, and subjective evaluations were identified and coded as *internal state language* (e.g., M: *You were a bit upset;* C: *I wanted a balloon,* or *It was fun*) (Haden et al., 1997; Han et al., 1998). Three variables that indicated the quality of discussion were further coded following Reese et al. (2007). Utterances that simply ascribed an internal state to the child without any mention of causes or consequences were coded as *attributions* (e.g., M: *Did you have fun?;* C: *I got mad*). Utterances concerning the causes or consequences of internal states were coded as *explanations* (e.g., M: *Tell mommy why you were crying?*; C: *It made me happy to get presents*). Utterances at the end of a three-utterance sequence about internal states that confirmed or reconfirmed the conversational partner's response were coded as *confirmations* (e.g., M: Were you a little bit worried about being in a new place? C: I wasn't nervous there. Mother confirmed: *Oh, ok.*). For this code, instance of occurrence was used as the coding unit. Note that because this code involves three conversational turns, it has also been referred to as "reconfirmations" in prior studies (e.g., Fivush, 1994). References to the internal states of other people (e.g., dad) or social groups (e.g., we, our family) were infrequent and were not considered separately in analysis.

Self-representations—Following previous studies (Bond & Cheung, 1983; Eder, 1989; Wang, 2004), children's self-descriptions concerning personal attributes, dispositional qualities, and intangible characteristics were identified and coded as *trait self* (e.g., "I'm happy," and "I'm smart"). Self-descriptions that implied a clearly positive or negative evaluation (e.g., "I'm very good at games," and "I'm cranky") were identified and coded as *evaluative self*. Note that we initially coded separately positive and negative self-evaluations, but they showed similar patterns and were both infrequent at this age, so we collapsed them into one category. Repetitions and meaningless responses (e.g., "I'm a shark") were not coded.

Two English-speaking and two English-Chinese bilingual research assistants coded the English and Chinese data, respectively. All coders were unaware of the study hypotheses. Repeated joint coding sessions were held to ensure that the same definitions were followed for the two data sets. Reliability (Cohen's kappa) was assessed for 20% of the data from each group. For reminiscing codes, kappas ranged from .74 to .95 for the Chinese immigrant sample, and from .75 to .92 for the Euro-American sample. For child self-representations, kappas ranged from.69 to 1.00 for the Chinese immigrant sample, and from .70 to 1.00 for the Euro-American sample. Disagreements were resolved by discussion among the coders.

Results

Preliminary Analyses

Of the average total number of 4.57 (SD = 5.24) self-descriptions children provided, the average numbers of descriptions of trait self (M = 0.47, SD = 1.45) and evaluative self (M = 0.22, SD = 0.76) were low, as would be expected for this age group (Keller et al., 1978; Wang, 2004). These variables were thus dummy coded, with children who provided at least one response scored as 1 and those who made no relevant response scored as 0. The dummy codes were later used in analysis. Children in both cultural groups did not make any confirmations, and this child reminiscing code was therefore not considered further.

Corresponding maternal and child reminiscing codes were significantly correlated, *r*s = .64 – .78, *p*s < .0001.

In connection with the hypotheses, we first conducted analyses to test whether mother-child reminiscing codes in the positive and negative event and children's self-representations varied as a function of group (culture, gender) and individual factors (child age, language skills). We then tested the link between reminiscing codes and self-representations to examine the independent contributions of maternal and child reminiscing codes in the two past events to children's trait and evaluative self, and to examine the mediational role of mother-child reminiscing codes for culture effects on children's self-representations.

Group and Individual Variations

Mother-child reminiscing codes—The analyses focused on differences by culture, gender, and valence of emotional event being discussed in mother-child reminiscing codes, with child age and language skills as covariates. Figure 1 illustrates mother reminiscing codes as a function of culture and event type. A 2 (culture) × 2 (gender) × 2 (event) mixed analysis on each reminiscing code with child age and language skills included as covariates showed that Euro-American mothers used more internal state language, $F(1, 119) = 6.52$, $p = .01$, $\eta_p^2 = .05$, more explanations, $F(1, 119) = 5.79$, $p = .02$, $\eta_p^2 = .05$, and marginally more confirmations, $F(1, 119) = 3.09$, $p = .08$, $\eta_p^2 = .03$, than did Chinese immigrant mothers. In addition, for confirmations there were a main effect of event, $F(1, 119) = 4.15$, $p = .04$, $\eta_p^2 = .03$, and an Event × Gender interaction, $F(1, 119) = 7.77$, $p = .006$, $\eta_p^2 = .06$. While mothers made more confirmations in the negative ($M = .69$, $SD = .97$) than the positive event for boys ($M = .25$, $SD = .59$), $F(1, 61) = 10.36$, $p = .002$, $\eta_p^2 = .15$, they made similar numbers of confirmations in the two events for girls (*M*s = .34 and .32, *SD*s = .70 and .59, for the positive and negative event, respectively). No effects pertaining to age or language neared significance.

Figure 2 illustrates child reminiscing codes as a function of culture and event type. Mirroring the findings with mothers, Euro-American children used more internal state language than did their Chinese immigrant peers, $F(1, 119) = 12.36$, $p = .0006$, $\eta_p^2 = .09$. Euro-American children also made marginally more attributions than did Chinese children, $F(1, 119) = 2.64$, $p = .11$, $\eta_p^2 = .02$. Furthermore, Euro-American children made more explanations than did Chinese children, $F(1, 119) = 15.40$, $p = .0001$, $\eta_p^2 = .12$. A marginally significant Culture × Event interaction, $F(1, 119) = 3.02$, $p = .09$, $\eta_p^2 = .03$, indicated that the cultural difference was more pronounced in the negative event, $F(1, 119) = 11.87$, $p = .0008$, $\eta_p^2 = .09$, than in the positive event, $F(1, 123) = 5.51$, $p = .02$, $\eta_p^2 = .04$. No other effects neared significance.

Child self-representations—Figure 3 illustrates the percentage of children who provided descriptions of trait-self and evaluative-self as a function of culture. Nominal logistic analyses with culture, gender, child age and language skills as predictors showed that Euro-American children were more likely than their Chinese immigrant peers to provide descriptions pertaining to trait-self, $\chi^2(1, N=116) = 4.89$, $p = .03$. Euro-American children were also more likely than Chinese immigrant children to provide evaluations of themselves, $\chi^2(1, N=116) = 5.21$, $p = .02$. There were no significant effects pertaining to gender, age, or language on either self-representation measure.

Predicting Child Self-representations

We first examined the links between the two self-representation measures and maternal and child reminiscing codes for the positive and negative event, respectively. Table 1 presents the point-biserial correlations (r_{pb}; with self-representations dummy scored as 0 and 1). The

most consistent patterns emerged for internal state language and explanations in relation to trait self for both events and in relation to evaluative self for the negative event. Mothers who used more internal state language in both events and who used more explanations in the positive event had children who were more likely to describe their trait characteristics. Children who used more internal state language and explanations in both events were more likely to describe their trait characteristics. Mothers' and children's uses of internal state language and explanations in the negative event were positively associated with children's evaluative self. Only one significant relationship was found for attributions, whereby mothers who used more attributions in the negative event had children who were more likely to provide evaluative self-descriptions. Maternal confirmations were not significantly correlated with children's self-representations.

Next we performed a series of hierarchical logistic regressions to further examine the differential effects of reminiscing codes in the positive and negative event on children's self-representations, and to test whether culture effects on self-representations were mediated by mother-child reminiscing codes (Baron & Kenny, 1986). Specifically, we examined each maternal and child reminiscing code in the positive and negative event in relation to children's trait self and evaluative self, respectively, independent of culture. Because child gender, age, and language skills were not associated with the self-representation measures or mother-child reminiscing codes, as shown in the previous section, these variables were not included in the regression analyses. In each regression, we entered culture as predictor in a first step. Then in a second step we entered the relevant maternal or child reminiscing codes that were significantly or marginally correlated with the relevant self-representation measure. We did not test reminiscing codes that had nonsignificant zero-order correlations with self-representations, including maternal attributions for trait self and confirmations for both self measures, and child attributions for both self measures. Results of the regression analyses are reported in Table 2 and Table 3 for maternal and child reminiscing codes, respectively.

As shown in Table 2, each of the five regression models was significant overall. Mothers' use of internal state language in the negative event uniquely predicted children's trait self and evaluative self, independent of culture. Mothers' use of attributions in the negative event also uniquely predicted children's evaluative self. Mothers' use of explanations was not significantly predictive of children's self-representations once culture was taken into account. Notably, the effect of culture decreased between 12% and 37% in size from Step 1 to Step 2 of all models when maternal reminiscing codes were included in the regression ($[\varphi^2_{step\ 1} - \varphi^2_{step\ 2}]/(\varphi^2_{step\ 1}$). This suggests that culture effects on children's self-representations were at least partially mediated by maternal reminiscing codes.

In predicting self-representations by child reminiscing codes, all the four regression models were significant overall. As shown in Table 3, children's use of internal state language and explanations in the negative event uniquely predicted their trait self and evaluative self, independent of culture. Children's use of explanations in the positive event was marginally predictive of their trait self. Culture effect decreased between 34% and 54% in Step 2 of all models ($[\varphi^2_{step\ 1} - \varphi^2_{step\ 2}]/(\varphi^2_{step\ 1}$), suggesting that child reminiscing codes served as a potent mediator in accounting for cultural differences in children's self-representations.

To test for possible moderation effect of culture, additional analyses were conducted with interactions of culture and reminiscing codes included in the above regression models. None of the interactions was significant.

Discussion

This study provides the first empirical evidence for the link between mother-child discussions of internal states during reminiscing and children's development of trait and evaluative self-representations. It also sheds new light on the role of culture as a context of mother-child reminiscing in children's developing self-understanding.

Consistent with our predictions, Euro-American mothers and children made more references to the child's internal states during reminiscing and focused more on causal talk than did their Chinese counterparts across both positive and negative events. Euro-American mothers also made marginally more confirmations of their children's responses than did Chinese mothers, and Euro-American children made slightly more attributions than did Chinese children. These findings are consistent with previous studies of mother-child reminiscing in Euro-American and Chinese families (Wang, 2001; Wang & Fivush, 2005). The joint activity of reminiscing embodies rich cultural messages and serves as an important medium of socialization pertaining to the self (Miller et al., 2007; Nelson & Fivush, 2004; Wang & Brockmeier, 2002). By focusing on and elaborating on the causes and consequences of the child's thoughts and feelings, mother-child reminiscing in Euro-American families highlights the personal meaning of the event under discussion and facilitates the construction of self-knowledge from past experiences. In contrast, reminiscing in Chinese families concerns less of children's subjective states but more of their relationships with significant others, thus facilitating a sense of relatedness rather than self-understanding. Accordingly, Euro-American children exhibited more trait and evaluative self-representations than did Chinese children, consistent with previous data (Wang, 2004).

These early emerged cultural differences in trait and evaluative self-representations appear to extend into adulthood. Europeans and Euro-Americans more frequently describe themselves in terms of dispositional qualities and traits, compared with East Asians who tend to focus more on concrete, situation-specific information about the self (Bond & Cheung, 1983; Cousins, 1989; Rhee, Uleman, Lee, & Roman, 1995). Euro-Americans also more frequently provide self-evaluations, particularly in a positive light, than do East Asians whose self-descriptions tend to be more ambivalent and neutral (Rodgers, Peng, Wang, & Hou, 2004). Such differences in self-representations are related to different models of the self in Western and East Asian cultures (Markus & Kitayama, 1991). To maintain an autonomous sense of self that is centered on personal agency, Western individuals are often encouraged to discover, express, and evaluate their own attributes and dispositional qualities. In contrast, to maintain a relational sense of self that is regulated and evaluated by social rules embedded in specific interpersonal contexts, East Asians tend to focus on their concrete actions and ambivalent characteristics. The present findings further indicate that parent-child reminiscing is an important context for the development of the culturally promoted self-representations.

As predicted, mother-child discussions of internal states during reminiscing were positively associated with children's trait and evaluative self-representations, independent of culture. All regression models predicting each of the two self-representations by culture and maternal and child reminiscing codes were significant. Furthermore, the effects of culture decreased in magnitude once reminiscing codes were entered in the regression models, indicating that cultural effects on self-representations were at least partially mediated by reminiscing codes. These findings suggest that at the individual level, mother-child discussions of internal states were linked to the development of trait and evaluative self in children, regardless of culture. At the cultural level, discussions of internal states served as a mediator that gave rise to cultural differences in children's self-representations. The findings further support social interactionist theories that parents model to children the appropriate

ways of organizing, evaluating, and sharing their past experiences and further help children build the critical link between autobiographical memory and self-concept (Nelson & Fivush, 2004).

Consistent with prior research (Bird & Reese, 2006; Reese et al., 2007), the quality of discussion plays a role such that children's use of explanations, rather than simply attributions, was predictive of both trait and evaluative self-representations. Through discussing the causes and consequences of their internal states, children may better appreciate the personal meaning of the past event and further gain knowledge about themselves. Mothers' use of explanations was not significantly related to the self measures once culture was taken into account. Nevertheless, given the mutuality of influences between mother and child during reminiscing, mothers' contributions may be realized through engaging children in causal discussions of past internal states. In addition, reminiscing in the negative event context was generally more effective in predicting children's self-representations than in the positive event context, which reflects the special importance of negative experiences for personal meaning-making. This is consistent with prior research showing that discussions of internal states in the negative event context exhibit many positive effects such as high self-concept consistency (Bird & Reese, 2006), positive representation of relationships (Laible, 2004), high self-esteem (Bohanek et al., 2008), and high social and academic competence (Marin et al., 2008).

There are important limitations to this study. The data were obtained from a single time point, which does not allow for causal inference. Longitudinal data are thus welcome. Also, the study focused on a young age group with limited linguistic and cognitive capacities. The self-description task that requires free verbal reports may not be the best test at this early point. The task being administered at the end of the interview session might have put additional demands on the children. More sensitive and age-appropriate measurements need to be developed to better capture young children's higher-order self-representations. In addition, the sample consisted of middle-class families. The results may therefore not be readily generated to other populations. Future studies should include a more heterogeneous sample with varied SES status and parental education level.

Although trait and evaluative self-representations are only beginning to emerge during the early preschool years, these nascent self-representations may bear important developmental consequences. In particular, they may both facilitate the development of autobiographical memory by providing a knowledge structure or self-referential frame for the representation and organization of personal event information (Howe & Courage, 1997; Povinelli, 1995; Welch-Ross, 2001). Individual and cultural differences in the early emergence of trait and evaluative self-representations may further contribute to individual and cultural differences in autobiographical memory later on (Wang & Ross, 2007). Future research will examine the role of trait self and evaluative self in the development of autobiographical memory as well as other social-cognitive skills.

Acknowledgments

This research was supported by NIMH Grant R01-MH64661 to Qi Wang. We thank members of the Social Cognition Development Lab at Cornell University for their contributions to the project. Special thanks go to the children and families who made this study possible.

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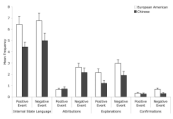

Figure 1.
Mother reminiscing codes as a function of culture and event type. Error bars indicate standard errors of the mean.

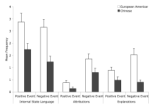

Figure 2.
Child reminiscing codes as a function of culture and event type. Error bars indicate standard errors of the mean.

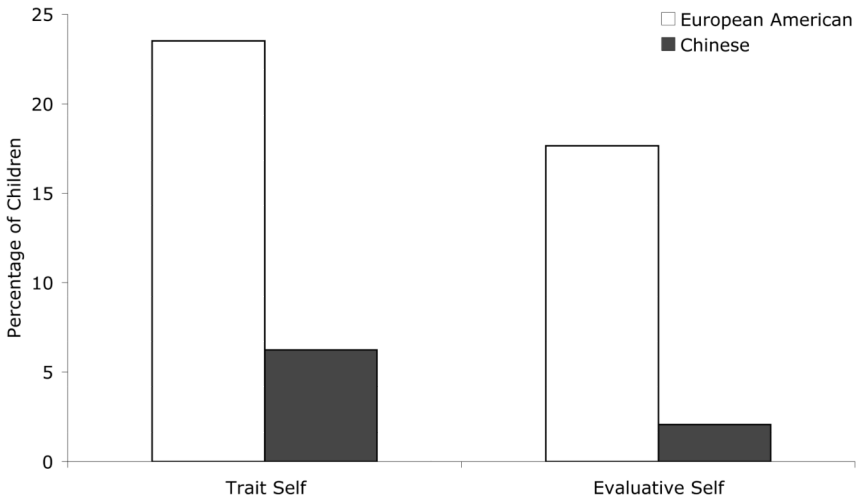

Figure 3.
Percentage of children who provided self-descriptions of traits and evaluations as a function of culture.

Table 1

Correlations Between Self-representations and Mother-child Reminiscing Codes by Event

	Self-representations			
	Trait Self		Evaluative Self	
Narrative Code	**P Event**	**N Event**	**P Event**	**N Event**
Internal State Language				
Mother	.18†	.28**	.12	.38****
Child	.23**	.33***	.12	.40****
Attribution				
Mother	−.10	.14	−.12	.26**
Child	−.02	.02	−.07	.15
Explanation				
Mother	.19*	.13	.09	.18†
Child	.22*	.26**	.13	.33***
Confirmation				
Mother	.13	.02	.05	−.00

Note. P = Positive; N = Negative.

† $p < .10$

* $p < .05$

** $p < .01$

*** $p < .001$

**** $p < .0001$, two-tailed.

Table 2

Hierarchical Logistic Regression Models for Maternal Reminiscing Codes Predicting Self-Representations

	Self-representations							
	Trait Self				Evaluative Self			
Variable	***Wald* $\chi^2(1)$**	***B***	***SE***	***φ²***	***Wald* $\chi^2(1)$**	***B***	***SE***	***φ²***
Step 1								
Culture	5.35*	1.53	.66	.046	4.75*	2.31	1.06	.041
	R^2 = .10**				R^2 = .14**			
Step 2								
Internal State Language Model								
Culture	3.33†	1.24	.68	.029	3.20†	1.93	1.08	.028
ISL-positive event	.29	.03	.05	.003				
ISL-negative event	4.04*	.10	.05	.036	8.84**	.17	.06	.078
	R^2 = .17**				R^2 = .29****			
Attributions Model								
Culture					4.07*	2.16	1.07	.036
AT-negative event					4.99*	.21	.09	.044
					R^2 = .21***			
Explanations Model								
Culture	4.16*	1.37	.67	.036	4.11*	2.16	1.07	.036
EX-positive event	2.17	.13	.09	.019				
EX-negative event					1.90	.14	.10	.017
	R^2 = .12*				R^2 = .16**			

Note. ISL = Internal state language; AT = Attributions; EX = Explanations. $\varphi^2 = \chi^2(1)/N$.

† $p < .10$

* $p < .05$

** $p < .01$

*** $p < .001$

**** $p < .0001$.

Table 3

Hierarchical Logistic Regression Models for Child Reminiscing Codes Predicting Self-Representations

	Self-representations							
	Trait Self				Evaluative Self			
Variable	***Wald* $\chi^2(1)$**	***B***	***SE***	φ^2	***Wald* $\chi^2(1)$**	***B***	***SE***	φ^2
Step 1								
Culture	5.35^{*}	1.53	.66	.046	4.75^{*}	2.31	1.06	.041
	$R^2 = .10^{**}$				$R^2 = .14^{**}$			
Step 2								
Internal State Language Model								
Culture	2.37	1.07	.69	.021	2.56	1.74	1.09	.023
ISL-positive event	1.05	.09	.09	.009				
ISL-negative event	4.82^{*}	.23	.11	.043	8.36^{**}	.35	.12	.074
	$R^2 = .20^{**}$				$R^2 = .29^{****}$			
Explanations Model								
Culture	2.64	1.13	.70	.023	$3.02^{\dagger}$	1.89	1.08	.027
EX-positive event	$3.05^{\dagger}$	.35	.20	.027				
EX-negative event	$2.83^{\dagger}$	.24	.14	.025	4.60^{*}	.33	.16	.041
	$R^2 = .18^{**}$				$R^2 = .21^{***}$			

Note. ISL = Internal state language; AT = Attributions; EX = Explanations. $\varphi^2 = \chi^2(1)/N$.

$^{\dagger}p < .10$

$^{*}p < .05$

$^{**}p < .01$

$^{***}p < .001$

$^{****}p < .0001$.