The relations of maternal reminiscing style and child self-concept to autobiographical memories were examined in a sample of 189 three-year-olds and their mothers from Chinese families in China, first-generation Chinese immigrant families in the United States, and European American families. Mothers shared memories with their children and completed questionnaires; children recounted autobiographical events and described themselves with a researcher. Independent of culture, gender, child age, and language skills, maternal elaborations and evaluations were associated with children’s shared memory reports, and maternal evaluations and child agentic self-focus were associated with children’s independent memory reports. Maternal style and child self-concept further mediated cultural influences on children’s memory. The findings provide insight into the social-cultural construction of autobiographical memory.

The emergence and development of autobiographical memory, that is, memory for significant personal experiences from an individual’s life, entail a host of biological, cognitive, linguistic, social, and cultural mechanisms (see Nelson & Fivush, 2004, for a review). Two factors are particularly highlighted in current theories: parent–child reminiscing and child self-concept. Researchers posit that children learn to remember their personal experiences through sharing memory narratives with significant others, especially their parents (Nelson & Fivush, 2004), and that the emergence and further enrichment of a cognitive self provide a necessary mental device for children to process and organize personal event information (Howe & Courage, 1993; Welch-Ross, 2001). While empirical studies have established both concurrent and longitudinal effects of parent–child reminiscing on children’s autobiographical memory, evidence concerning the effect of self-concept is sparse. Moreover, little is known about how these two factors interplay in affecting children’s personal remembering and, perhaps more important, how they are manifested in different cultural contexts that advocate different practices of memory sharing and different views of the self.

The influence of cultural context where social and cognitive factors operate on the processes of remembering has drawn increasing attention in autobiographical memory research (see Wang, 2003, for a review). Studies have shown that compared with native and overseas Asians, European, and European American adults are able to access earlier (MacDonald, Uesiliana, & Hayne, 2000; Mullen, 1994; Wang, 2001a, in press) and a greater number of childhood memories (Wang, Conway, & Hou, 2004) and to provide more specific details in their memory accounts (Wang, 2001a, Wang & Conway, 2004). Even among preschoolers, European American youngsters often remember their personal experiences with greater detail and elaboration than their Korean and Chinese peers (Han, Leichtman, & Wang, 1998; Wang, 2004). These cultural differences in memory accessibility and elaboration are attributed to different self-views and varied parental reminiscing styles across cultures (Wang, 2003). However, little empirical work has directly attested to these theoretical proposals. The present study set forth to examine the relations of maternal reminiscing style and child self-concept to autobiographical memory in Chinese, Chinese immigrant, and European American children.
Parental Reminiscing Style and Children's Memory

According to social interactionist views of memory development (Nelson & Fivush, 2004), parental reminiscing style is a critical variable affecting children's developing autobiographical memory. Studies with European and European American families have found that high-elaborative parents often supplement rich embellished information about the event under discussion and elaborate upon the pieces of information their children provide. In doing so, they scaffold children's participation and meanwhile provide a coherent structure for the narrative construction of the past. Low-elaborative parents, in contrast, tend to initiate directive conversations during which they attempt to elicit specific answers from their children by simply repeating their memory questions. And compared with low-elaborative parents, high-elaborative parents are more responsive to their children's participation. They frequently provide evaluative feedback on children's memory utterances (e.g., "Yes," "You played!") and thus explicitly engage children in the conversation (Fivush & Fromhoff, 1988; Fivush, Haden, & Adam, 1995; Reese, Haden, & Fivush, 1993). These stylistic differences in parental reminiscing show both concurrent and long-term effects on children's shared recall (e.g., Harley & Reese, 1999; McCabe & Peterson, 1991; Reese et al., 1993) as well as long-term effects on their independent memory reports (Haden, Haine, & Fivush, 1997; Leichtman, Pillemer, Wang, Koreishi, & Han, 2000). When sharing memories with their mothers or independently recounting past experiences with a researcher, children of high-elaborative mothers typically remember more details and discuss the past with greater elaboration than children of low-elaborative mothers. In addition, the elaborative and evaluative dimensions of maternal reminiscing style independently predict children's concurrent contributions during shared recall (Farrant & Reese, 2000; Haden, 1998).

Just like other socialization practices, the way in which parents converse with their children about the shared past reflects parents' implicit or explicit goals of socialization (Pillemer, 1998). For European American mothers, joint reminiscing with their children creates an opportunity to help children construct elaborate and coherent personal stories of the past and further use autobiographical memory to build a unique individual identity. These mothers frequently engage in high-elaborative memory conversations with their children and provide ample support and evaluative feedback to facilitate children's participation. For Japanese, Korean, and Chinese mothers, in contrast, the conversations provide a forum to define the social roles of the child and the mother and thus situate the child in a relational hierarchy. These mothers tend to initiate low-elaborative, test-like conversations with their children, posing pointed questions without providing embellished information or following up on children's responses (Fivush & Wang, 2005; Minami & McCabe, 1995; Mullen & Yi, 1995; Wang, 2001b; Wang, Leichtman, & Davies, 2000). Cultural differences in the degree of maternal elaboration and scaffolding during reminiscing have shown concurrent effects on children's shared memory reports such that European American 3-year-olds often recall more memory information with their mothers than do Chinese children (Wang, 2001b; Wang et al., 2000). It is less clear, however, whether different parental reminiscing styles in European American and Asian cultures contribute to cultural differences in children's independent memory skills.

The Self and the Remembering of the Self

Researchers propose that the acquisition of autobiographical memory may require a self-conceptual system emerging over the first years of life (Povinelli, 1995; Welch-Ross, 2001). In particular, by around 30 months, most children have come to develop an evaluative self-awareness as 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't"); Stipek, Gralinski, & Kopp, 1990). According to Welch-Ross (2001), this evaluative representation of the self in relation to the social and physical world may serve as a self-referential frame that children use to represent not only personal events as experienced but also their subjective attitudes toward the events, which further provides a basis for constructing personally meaningful connections among unrelated event episodes. Together with the contribution of other cognitive and social factors, children's event representation is gradually transformed from a static collection of isolated episodes to a temporal-causal organization of life stories and, thus, an enduring autobiographical memory system. Welch-Ross (2001) found that 3-year-olds' evaluative perspective on the self, assessed by maternal reports in a subset of items from the Self Development Questionnaire (SDQ; Stipek et al., 1990), independently contributed to their concurrent shared recall. Whether the evaluative self may affect children's independent memory skills has yet to be investigated.
Cross-cultural studies, on the other hand, have suggested another important dimension of the self that may affect whether and to what extent cognitive processes and resources are channeled into the acquisition, retention, and retrieval of autobiographical memory (Mullen, 1994; Wang, 2001a; Wang et al., 2004). Representing the self as primarily a collection of unique individual attributes, qualities, and beliefs, which is an agentic or autonomous self-focus as promoted in European American culture (Kagitcibasi, 1996; Markus & Kitayama, 1991; Triandis, 1989), may motivate individuals to attend to, encode, and retain specific personal event information and further drive the early development of an organized, articulated, and durable autobiographical memory system. In contrast, representing the self as a collection of social roles and relationships, which is a communal or relational self-focus as encouraged in many Asian cultures (Bond, 1991; Markus & Kitayama, 1991; Triandis, 1989), may prioritize instead the retention of knowledge critical for social harmony and collective solidarity. The development of a structured memory system for one’s own experiences may not be accentuated in this context. Importantly, variations in self-focus are further observed among individuals in the same culture (Hollos & Leis, 2001; Kagitcibasi, 1996; Wang & Li, 2003). To test the relation between this agency–community dimension of the self and autobiographical memory at both cultural and individual levels, Wang (2001a) examined self-descriptions and earliest childhood memories in 256 European American and Chinese young adults. She found that, between the two culture groups and across the entire sample, a focus on personal unique attributes and qualities in perceiving oneself was associated with earlier and more detailed childhood memories than a focus on social roles and memberships. Similar correlational results were also found in a sample of European American and Chinese 4- to 8-year-olds (Wang, 2004). These findings provide preliminary evidence for the link between the agentic self-focus and autobiographical remembering.

**Purposes of the Present Study**

The present study tested in a cross-cultural context the relations of maternal reminiscing style and child self-concept to autobiographical memory abilities in children of 2.5–3.5 years of age, a critical period when autobiographical memory emerges and develops. The sample comprised three distinct populations: native Chinese in China, Chinese immigrants in the United States, and European Americans. While the two Chinese groups share cultural origins in contrast with the European American group, they show interesting differences in socialization goals and practices that reflect the consequences of cultural transformation. Chinese immigrant families, although often adopting values such as personal efficacy and independence from mainstream American culture, consciously preserve traditional Chinese values such as filial piety, mutual dependence, and moderation in socializing their children (Chao & Tseng, 2002; Lee & Zane, 1998; Lin & Fu, 1990). Families in mainland China, on the other hand, have undergone major changes in family structures and practices in the past two decades due to vast industrialization, Western influences, and the one-child policy (Chen, Cen, Li, & He, in press; Wang, Leichtman, & White, 1998). These changes are particularly reflected in the so-called “4-2-1 syndrome,” whereby six doting adults (four grandparents and two parents) pour their attention onto the needs and wishes of one child, who is popularly likened to the “little sun” or “little emperor” in the family. Chinese only children are often described as egotistic and willful, who do as they like and act according to their own interests (Jiao, Ji, & Jing, 1986; Wang et al., 1998). It is possible then that the native Chinese group would exhibit a more Western pattern of maternal reminiscing and child memory outcome than would the Chinese immigrant group. Including the three groups would thus allow the examination of both cultural (European American vs. Chinese) and sub-cultural (native Chinese vs. Chinese immigrant) variations.

This study aimed at achieving two major goals. First, it examined the relations of maternal reminiscing style and child self-concept to children's shared and independent autobiographical memories, independent of other group (culture, gender) and individual factors (child age, language skills). The elaborative and evaluative dimensions of maternal style were tested separately because they are both characteristic of scaffolded memory conversations and yet manifest in different ways. By providing elaborations, mothers supplement embellished information and model to children the narrative structure of constructing personal stories of the past, and by providing evaluations, mothers explicitly encourage and reinforce children’s participation in the memory conversation (Haden, 1998; Reese et al., 1993). Two aspects of self-concept were examined: the evaluative self-awareness and the agentic self-focus. This study is the first to examine the role of children’s evaluative self
in their independent memory skill. It is also the first to assess the independent contribution of children’s agentic self to their shared and independent memories. Situating in a cross-cultural context further makes it possible to test the generalizability of these mechanisms for memory development.

The second goal of the present study was to further test whether maternal reminiscing style and child self-concept function as generative mechanisms that mediate cultural influences on children’s autobiographical memory abilities. Instead of simply attributing cultural differences in psychological functioning to certain pan-cultural dimensions (e.g., individualism-collectivism), this approach seeks to identify specific mechanisms in individual social-cognitive processes that give rise to the cultural differences (Hong & Chiu, 2001).

Built on previous cross-cultural data, it was predicted that European American mothers would be more elaborative and evaluative than Chinese mothers during reminiscing with their young children. And compared with their Chinese peers, European American children would recall more memory information when sharing memories with their mothers and when independently recounting past experiences with a researcher. Because there are no previous cross-cultural data on children’s self-concept development at this early age, no clear predictions could be made. However, given the great emphasis on individuality and autonomy in European American culture and the corresponding socialization practices in the family (Shweder et al., 1998), European American children were expected to show a greater agentic self-focus than Chinese children. Independent of culture, children whose mothers were more elaborative and evaluative in memory conversations would recall more information than children whose mothers were less elaborative and evaluative, and this would be particularly true for children’s shared memory reports given the online, contingent influence between mother and child during reminiscing. Children who showed a greater evaluative self-awareness and a greater agentic self-focus were expected to have more advanced memory abilities, which might be particularly reflected in their unscaffolded, independent memory. Children’s memory reports were also expected to be positively associated with their age and language skills. Furthermore, maternal reminiscing style and child self-concept variables were expected to function as potent mediators in explaining cultural differences in children’s shared and independent memories.

**Method**

**Participants**

The participants were 58 Chinese mother–child pairs from Beijing, China, and 60 Chinese immigrant and 71 European American mother–child pairs from a university town and suburban areas in upstate New York. The Chinese children (25 girls and 33 boys) were on average 34.17 months of age (range = 30–40 months), all from only-child families. The Chinese immigrant children (30 girls and 30 boys) were 35.00 months of age (range = 30–43 months), including 26 only-children, 7 firstborns, and 27 later-borns. The European American children (34 girls and 37 boys) were 35.49 months of age (range = 30–42 months), including 21 only-children, 10 firstborns, and 40 later-borns. 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 (Chinese 85%; Chinese immigrant 98%; European American 93%) and fathers (Chinese 85%; Chinese immigrant 100%; European American 96%) 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 most of the parents being professionals. The mothers had lived in the United States for an average of 7.2 years (ranging from less than 1 year to 16 years), and the fathers 7.9 years (ranging from less than 1 year to 20 years); 80% of the children were born in the United States.

**Procedure**

A home visit was arranged for each participating family by two native female researchers. English–Chinese bilingual researchers visited the Chinese immigrant families and conducted the interview in the language with which the child was most comfortable. The majority of Chinese immigrant children spoke Chinese at this age point and a few of them spoke English and Chinese interchangeably. All materials were written in both English and Chinese and translation and a back-translation procedure was carried out to ensure their equivalence in both literal and sense meaning. During each visit, mother–child interactions were first observed in a series of free play and semi-structured tasks, followed by a researcher–child session. The entire home visit took approximately one and a half hours and was video tape-recorded.
Upon arriving at the participants’ house, one researcher (interviewer) who later interviewed the child first played with the child to establish rapport, while the other researcher explained to the mother about the procedure. Then, after an initial free play, mothers were asked to talk with their children about two specific, one-time events in which both mother and child had participated, such as a trip to a science museum or an amusement park. One event was emotionally positive to the child, and one was emotionally negative. Past research has shown that conversations of shared emotional experiences allow the observation of a greater extent of group and individual variations in maternal reminiscing style and child shared recall (Fivush, Berlin, Sales, Mennuti-Washburn, & Cassidy, 2003; Wang, 2001b). Mothers were asked to select events occurring within the past 2 months so that the children had fresh memories of them. This procedure also served to control for individual and group variations in the time lag of the selected events. The researcher emphasized to the mothers that they should talk with children about the past events in as natural a way as possible and that there was no time restriction on the length of their conversation. The sequence of talking about positive and negative events was counterbalanced across mother–child pairs within each sample. Each conversation took approximately 20 min.

Following the mother–child tasks, the interviewer asked, out of earshot of the child, the mother to nominate two other specific, one-time events that took place within the past 2 months. She then played with the child for a few more minutes and engaged the child in warm-up conversation. When the child seemed relaxed and comfortable, the interviewer told the child, “Your Mom just told me that . . . (e.g., you went to the amusement park last week). I’ve never been there before. Tell me what you did. I really want to know.” After each memory question, the interviewer used standard prompts such as “What else happened?” and “Can you tell me more about it?” until the child indicated by speech or gesture that he or she was finished. Each researcher–child session lasted approximately 35 min. At the end of the session, the interviewer gave the child a small gift to keep.

During the researcher–child session, the mother filled out several questionnaires including a SDQ (Stipek et al., 1990) that assessed aspects of children’s self-concept, and a shortened version of Child Development Inventory (CDI; Ireton, 1992) that comprised two language scales to assess children’s language production and comprehension.

**Coding**

Coding was performed in the original languages. For most codes, proposition, defined as a subject–verb construction (in Chinese, 主谓结构), was used as the coding unit (Fivush et al., 1995), with each unique or implied verb in an independent clause forming a new propositional unit. For instance, “I was jumping up and down” is one proposition, and “You turned around and you saw the Christmas stockings hanging on that door there” is two. For maternal evaluations, instance of occurrence was used as the coding unit (Haden, 1998; Reese et al., 1993). 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. It increases the efficiency of coding and eliminates error-prone procedures such as data transcription and data entry (see Noldus, 2003, for more detail).

**Maternal reminiscing style.** Mothers’ utterances during memory sharing were coded as elaborations whenever they introduced a topic for discussion, moved the conversation to a new aspect of the event, or added information about a particular aspect (e.g., “Do you remember what we did at school yesterday?”). Mothers’ utterances in response to children’s participation that involved any instance of confirmation, negation, questioning, or emphasis of the child’s previous statement were coded as evaluations (e.g., “Oh yes, you played in the sandbox” included one confirmation and one emphasis and was coded as two evaluations) (Fivush et al., 2003; Haden, 1998; Reese et al., 1993). The two codes were mutually exclusive but not exhaustive (i.e., they did not cover all maternal utterances).

**Child shared memory.** Following previous studies (Farrant & Reese, 2000; Fivush & Fromhoff, 1988), children’s utterances in mother–child conversations...
were classified as shared memory reports whenever they requested new information, moved the conversation to a new aspect of the event, or provided new information about the past event being discussed (e.g. M: “What happened after lunch?” C: “Lots of playing outside”). This code was not exhaustive.

Child independent memory. Children’s utterances when recounting past events to the researcher were classified as independent memory reports whenever they provided new information about the event in question (e.g., “We went apple-picking” and “Mommy was going to score on the open net”) (Harley & Reese, 1999). Children’s non-memory utterances (e.g., “My brother has a bigger sized ship”) were coded for separate research questions and not considered here. Placeholders (e.g., “I don’t know”) and off-topic talk (e.g., children talked about the camera) were infrequent and not coded.

Self-description. Children’s self-descriptions were classified into three mutually exclusive and exhaustive categories in relation to the agency–community dimension of the self (Trafimow, Triandis, & Goto, 1991; Triandis, 1989). Responses referring to personal qualities, attributes, beliefs, or behaviors unrelated to other people were coded as private self-descriptions (e.g., “I’m happy,” and “I have a teddy bear”). Responses concerning social or demographic categories and group memberships were coded as collective self-descriptions (e.g., “I am a boy,” and “I am in daycare.”). Responses about interpersonal relations, responsiveness to others, or sensitivity to the viewpoints of others were coded as public self-descriptions (e.g., “I love my Mommy,” and “Jeannie is my friend”). Repetitions and meaningless responses (e.g., “I’m a shark”) were not coded. An agentic self score was calculated for each child by subtracting the total number of collective and public self-descriptions from the total number of private self-descriptions (i.e., private–collective–public scores), a construct adapted from previous studies to represent the continuum of self-focus (Wang, 2001a, 2004; Wang et al., 1998). Previous studies used the difference between private and collective scores (i.e., private–collective scores). The current construct included the public score because it also indexes an important social component of the self (e.g., Triandis, 1989). The two constructs of agentic self-scores yielded identical patterns of results in preliminary analyses.

Self-evaluation measure. The seven items in the SDQ (Stipek et al., 1990) that focus on children’s evaluative self-awareness were tabulated, following the method by Welch-Ross (2001). Mothers reported, for example, if the child ever used general evaluative terms about him- or herself (e.g., “I’m a good girl”), used descriptive terms that contained some evaluation (e.g., “sticky hands”), described the self by physical characteristics (e.g., curly hair), referred to competencies (e.g., “I can’t”), and communicated likes and dislikes verbally. Mothers responded “definitely not” (1 point), “has just begun to do this, but not consistently” (2 points), and “definitely yes” (3 points) to these questions. The points were summed to form an evaluative self-score for each child. For children of ages 14–40 months, the average interrater reliability of SDQ assessed by the correlations between mothers’ and other caretakers’ reports is .67, the coefficient of reproducibility is .93 (above the standard of .90 for a valid scale), and the coefficient of scalability is .76 (above the standard of .60 for a truly unidimensional and cumulative scale; Stipek et al., 1990).

Language measure. Children’s language skills were assessed by maternal reports on the language scales in the CDI (Ireton, 1992). The Cronbach’s alpha for the language scales is .93 at the age range of the current sample. Two English–Chinese bilingual research assistants translated and back-translated the inventory to ensure a balanced equality of literal and sense meaning between the two language versions. English words and grammatical rules that are not used in Chinese were exchanged for their Chinese equivalents. The Chinese translation was further checked by a native Chinese speaker with attention to the natural-sounding expression. The inventory was then tested and modified in a pilot study with seven European American and five Chinese immigrant families to further ensure its between-culture equivalence. Children’s language production and comprehension scores were highly correlated, $r = .80$, $p < .0001$, and showed identical patterns of effects in preliminary analyses. They were thus pooled together in later analyses.

An English-speaking and two English–Chinese bilingual research assistants coded the English and Chinese data, respectively. Repeated joint coding sessions were held to ensure that the same definitions were followed for the three data sets. Reliability was assessed for 20% of the data from each group by two other independent coders. All coders were unaware of the study hypotheses. Cohen’s Kappa (κ) was used to determine intercoder reliability. For mother–child conversations, κs ranged from 0.71 to 0.91 for the Chinese sample ($M = 0.84$), from 0.74 to 0.95 for the Chinese immigrant sample ($M = 0.83$), and from 0.75 to 0.92 for the European American sample ($M = 0.86$). For children’s
independent memory reports, ks ranged from 0.67 to 1.00 for Chinese children (M = 0.89), from 0.65 to 1.00 for Chinese immigrant children (M = 0.86), and from 0.69 to 1.00 for European American children (M = 0.84). For children’s self-descriptions, ks ranged from 0.74 to 1.00 for Chinese children (M = 0.86), from 0.69 to 1.00 for Chinese immigrant children (M = 0.85), and from 0.70 to 1.00 for European American children (M = 0.85). Thus, all average k coefficients were within the substantial to excellent range (Fleiss, 1981). The lower ks (4% below 0.70) appeared mostly when a child’s utterances were not intelligible. Disagreements were resolved by discussion among the coders.

Results

In connection with the hypotheses, the first results presented include group (culture, gender) and individual variations (child age, language skills) in maternal reminiscing style, child self-concept, and shared and independent autobiographical memories. Subsequent analyses were directed at answering two questions: (1) the independent contributions of maternal reminiscing style and child self-concept to children’s shared and independent memories, and (2) the mediational role of maternal reminiscing style and child self-concept for culture effects on children’s shared and independent memories. Some of the children did not complete every task; thus, the degrees of freedom varied slightly across tests. To rule out the possibility that any group differences identified could be due to different family sizes across the samples, Chinese children were compared with only-child European American and Chinese immigrant children. The results were consistent with those with all children included. Preliminary analyses further showed no main effects or interactions for birth order within the European American and Chinese immigrant samples. Birth order was therefore not considered further. Within the Chinese immigrant sample, the number of years the mothers and fathers had lived in the United States was correlated with maternal and child variables, respectively. The only significant relation was for child agentic self, whereby the longer the mothers, r = −.31, p = .03, and fathers, r = −.27, p = .06, had lived in the United States, the lower agentic self-scores their children received.

Group and Individual Variations

Table 1 lists the means and standard deviations of mother and child variables by culture and the observed ranges across the sample. Memory narrative codes were based on frequencies averaged between the two events in the shared and independent memory tasks. The length of maternal speech during memory sharing, indexed by their total number of propositions and instances of evaluations per event, was 40.67 (SD = 21.77) for Chinese mothers; 25.09 (SD = 16.57) for Chinese immigrant mothers; and 43.49 (SD = 19.06) for European American mothers. The proportions of maternal reminiscing codes over the length of maternal speech are listed in Table 1. Preliminary analyses based on frequencies and

<table>
<thead>
<tr>
<th>Variable</th>
<th>Chinese</th>
<th>Chinese immigrant</th>
<th>European American</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Mother variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion</td>
<td>0.52</td>
<td>a, b</td>
<td>0.47</td>
<td>a, b</td>
</tr>
<tr>
<td>Evaluations</td>
<td>6.45</td>
<td>4.01</td>
<td>4.29</td>
<td>4.19</td>
</tr>
<tr>
<td>Proportion</td>
<td>0.16</td>
<td>a</td>
<td>0.15</td>
<td>a</td>
</tr>
<tr>
<td>Child variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>74.91</td>
<td>14.84</td>
<td>71.15</td>
<td>16.44</td>
</tr>
<tr>
<td>Agentic self</td>
<td>0.87</td>
<td>2.96</td>
<td>0.50</td>
<td>3.02</td>
</tr>
<tr>
<td>Evaluative self</td>
<td>18.26</td>
<td>2.21</td>
<td>18.03</td>
<td>2.83</td>
</tr>
<tr>
<td>Shared memory</td>
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<td>6.26</td>
<td>5.34</td>
<td>5.16</td>
</tr>
<tr>
<td>Independent memory</td>
<td>4.25</td>
<td>3.45</td>
<td>3.36</td>
<td>3.29</td>
</tr>
</tbody>
</table>

Note. Means in the same row that do not share subscripts differ at p < .05 in the Tukey honestly significant difference comparison. The possible range of language scores for Child Development Inventory is 0–100. The possible range of evaluative self-scores for Self Development Questionnaire is 7–21.
proportions yielded similar patterns of results. Prior research on memory conversations has shown that compared with proportions, frequencies are often more informative in this context by reflecting the sheer amount of specific types of event information mothers are providing and are more predictive of child memory outcome (e.g., Farrant & Reese, 2000; Fivush, 1998; Reese et al., 1993; Wang, 2001b). The results of frequencies are reported here. Three (culture) × 2 (gender) analyses of covariance (ANCOVAs) with children’s age and language skills being covariates were performed across all variables unless otherwise specified. Significant (p < .05) multivariate effects were followed up with univariate and/or post-hoc Tukey–Kramer honestly significant difference (HSD) tests, as appropriate, at the p < .05 level.

Maternal reminiscing style. A 3 (Culture) × 2 (Gender) × 2 (Reminiscing codes) multivariate analysis of covariance (MANCOVA) with children’s age and language skills treated as covariates revealed only a significant culture effect, F(2, 179) = 11.75, p < .0001, ηp² = .12. Subsequent analyses showed that European American mothers provided more elaborations than did Chinese mothers, who, in turn, provided more elaborations than did Chinese immigrant mothers, F(2, 179) = 15.52, p < .0001, ηp² = .15. The same pattern of differences was found for maternal evaluations, F(2, 179) = 11.33, p < .0001, ηp² = .11. Post hoc tests showed that the cultural differences were significant between European American and Chinese immigrant samples for maternal elaborations and between European American and both Chinese and Chinese immigrant samples for maternal evaluations. The differences between Chinese and Chinese immigrant samples were significant for both elaborations and evaluations. There were no significant effects of child gender, age, or language skills.

Child self-concept. Analysis of the agentic self-scores revealed a significant culture effect, F(2, 163) = 5.44, p = .005, ηp² = .06. Post hoc tests showed that European American children had higher agentic self-scores than both Chinese and Chinese immigrant children, who in turn did not differ from each other. No other effects neared significance.

Analysis of children’s evaluative self-scores from the seven evaluative perspective items in SDQ showed no culture effects. Girls (M = 19.06, SD = 2.07) had higher scores than boys (M = 17.71, SD = 2.52), F(1, 181) = 9.04, p = .003, ηp² = .05, and children with more advanced language skills had higher scores than children with less advanced language skills, F(1, 181) = 90.08, p < .0001, ηp² = .33.

Child shared and independent memory reports. Compared with Chinese and Chinese immigrant children, European American children provided more memory information when sharing memories with their mothers, F(2, 179) = 20.20, p < .0001, ηp² = .18, and when independently recounting past experiences with a researcher, F(2, 180) = 5.96, p = .003, ηp² = .06. Post-hoc tests showed that the cultural differences were significant between European American and both Chinese and Chinese immigrant samples for both memory measures. In addition, Chinese children provided more shared memory reports than did Chinese immigrant children. There were no significant effects of child gender, age, or language skills for either memory measure.

Predicting Child Autobiographical Memory Reports

Zero-order correlations were first calculated to examine the interrelations among mother and child variables (see Table 2). As expected, children’s shared memory reports were positively correlated with maternal elaborations and evaluations during reminiscing, with child agentic self- and evaluative self-scores, and with child language skills. Children’s independent memory reports were positively correlated with maternal evaluations and child agentic self. The two memory measures were also positively related. In addition, children’s agentic self was positively correlated with maternal evaluations and child language skills, and their evaluative self was positively correlated with maternal elaborations and child age and language skills. The two self-concept measures were not correlated, suggesting that the agentic and evaluative dimensions of the self may be independent. Mothers whose children had more advanced language skills provided more elaborations and evaluations than those whose children had less advanced language skills. Children’s language skills increased with age.

One major purpose of the study was to examine the effects of maternal reminiscing style and child self-concept on children’s memory abilities, independent of other group (culture, gender) and individual factors (age, language). To address this question, a hierarchical regression was performed on each memory measure that controlled for relevant variables in the appropriate order for testing the hypothesized effects. A regression on shared memory reports with culture, gender, age, and language skills first entered as predictors showed that these variables combined contributed to 22% of the variance in shared memory, with culture alone contributing 18%, F(5, 181) = 10.15, p < .0001. The addition
of maternal elaborations increased the proportion of variance accounted for by 42%, to 64%, $F(6, 180) = 52.83, p < .0001$. The further addition of maternal evaluations increased the proportion of variance accounted for by another 20%, to 84%, $F(7, 179) = 137.98, p < .0001$. Neither the addition of agentic nor evaluative self-scores led to any increase in the proportion of variance accounted for. The results from the final regression model are summarized in Table 3. Culture (European American – Chinese immigrant), age, and maternal elaborations and evaluations were significant predictors of children’s shared memory reports.

A similar hierarchical regression on independent memory reports first showed that culture, gender, age, and language combined contributed to 8% of the variance in independent memory, with culture alone contributing 6%, $F(5, 182) = 3.34, p = .007$. The addition of maternal elaborations did not increase the proportion of variance accounted for, while the addition of maternal evaluations increased the proportion of variance accounted for by 5%, to 13%, $F(7, 178) = 3.73, p = .001$. The further addition of agentic self-scores increased the proportion of variance accounted for by 6%, to 19%, $F(8, 161) = 4.61, p < .0001$, and the addition of evaluative self-scores increased the proportion of variance accounted for by 1%, to 20%, $F(9, 160) = 4.47, p < .0001$. As shown in Table 3, culture (European American – Chinese immigrant), maternal evaluations, and child agentic self-focus were significant predictors of children’s independent memory reports. The effect of child evaluative self, while not significant ($p = .09$), was of considerable size. Language showed a negative

Table 3
Hierarchical Regression Analyses for Variables Predicting Shared and Independent Autobiographical Memories

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>Shared memory</th>
<th></th>
<th></th>
<th>Independent memory</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$B$</td>
<td>$SE$</td>
<td>$SE$</td>
<td>$\beta$</td>
<td>$\Delta R^2$</td>
<td>$B$</td>
</tr>
<tr>
<td>1</td>
<td>Culture$^a$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chinese</td>
<td>.18</td>
<td>.33</td>
<td>.06</td>
<td>.16$^*$</td>
<td>.08</td>
<td>.16$^*$</td>
</tr>
<tr>
<td></td>
<td>European American</td>
<td>.71</td>
<td>.35</td>
<td>.08$^*$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>.29</td>
<td>.24</td>
<td>.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>.22</td>
<td>.08</td>
<td>.10$^{**}$</td>
<td></td>
<td>.17</td>
<td>.10</td>
</tr>
<tr>
<td></td>
<td>Language skills</td>
<td>-.02</td>
<td>.02</td>
<td>-.04</td>
<td></td>
<td>-.06</td>
<td>.03</td>
</tr>
<tr>
<td>2</td>
<td>Maternal elaborations</td>
<td>.17</td>
<td>.02</td>
<td>.32$^{****}$</td>
<td>.22$^{****}$</td>
<td>-.05</td>
<td>.03</td>
</tr>
<tr>
<td>3</td>
<td>Maternal evaluations</td>
<td>.92</td>
<td>.06</td>
<td>.63$^{****}$</td>
<td>.42$^{****}$</td>
<td>-.05</td>
<td>.03</td>
</tr>
<tr>
<td>4</td>
<td>Child agentic self</td>
<td>.05</td>
<td>.05</td>
<td>.03</td>
<td>.00</td>
<td>.24</td>
<td>.07</td>
</tr>
<tr>
<td>5</td>
<td>Child evaluative self</td>
<td>.13</td>
<td>.13</td>
<td>.04</td>
<td>.00</td>
<td>.29</td>
<td>.17</td>
</tr>
</tbody>
</table>

Note. $R^2 = .84$ for shared memory; $R^2 = .20$ for independent memory ($p < .0001$).

$^a$ar to assess both cultural and sub-cultural differences, Chinese immigrants serve as the reference group.

$p < .05, **p < .01, ***p < .001, ****p < .0001$. 
effect on independent memory when all other variables were controlled for, possibly due to its strong correlations with age and evaluative self-scores (see Table 2) and thus a negative suppression occurred (Cohen & Cohen, 1975; Krus & Wilkinson, 1986).

To further determine whether the influences of maternal style and child self-concept on child memory might vary for particular culture groups, interactions between culture and each of the maternal and child variables were entered into the above final regression models to test for moderation effects of culture for shared and independent memory, respectively. The only significant effect was Culture × Maternal elaborations for shared memory, $F(2, 158) = 3.95, p = .02$. Subsequent regression analyses within each group showed that, independent of other contributing variables, the effect of maternal elaborations on shared memory for Chinese group only approached significance, $\beta = .14, p = .11$, while being significant for Chinese immigrant, $\beta = .40, p < .0001$, and European American groups, $\beta = .42, p < .0001$.

**Did Maternal Style and Child Self-Concept Mediate Culture Effects on Memory?**

Another major purpose of this study was to test whether culture effects on children’s memory reports identified here and in previous research (e.g., Han et al., 1998; Wang, 2004) are in fact mediated (fully or partially) by individual factors, that is, maternal reminiscing style and child self-concept, which may serve as generative mechanisms for personal remembering. To address this question, mediation analyses (Baron & Kenny, 1986; MacKinnon, Warsi, & Dwyer, 1995) were conducted on shared and independent memory reports, respectively.

To establish the conditions for mediation, culture was first regressed on child shared and independent memory, respectively, with Chinese immigrant being reference group. In both cases, the European American–Chinese immigrant comparison was significant, $\beta_s = .44$ and .29, $p < .0001$ and $p = .0005$, whereas the Chinese–Chinese immigrant comparison was not, $\beta_s = .05$ and $ -.05$, ns. Chinese and Chinese immigrant groups were therefore pooled together in subsequent analyses (i.e., culture was represented by a dummy variable, with European American being coded as 0 and Chinese and Chinese immigrant as 1). Further regression analyses confirmed that culture had significant effects on maternal elaborations, maternal evaluations, and child agentic self ($\beta_s > .29, ps < .01$). Evaluative self-scores were not associated with culture and consequently did not meet the criteria for mediation analysis. Table 4 summarizes the significant mediation effects of maternal reminiscing style and child self-concept variables in the prediction of child memory by culture. As shown in Step 1 of each of the models, culture significantly affected child memory. In Step 2, the independent contribution of culture to child memory was substantially reduced when both culture and the mediator were simultaneously regressed on child memory. The standardized regression coefficient ($\beta$) of culture was

<table>
<thead>
<tr>
<th>Mediator</th>
<th>Step</th>
<th>Effects in model</th>
<th>$sr^2$</th>
<th>$\beta$</th>
<th>$F$</th>
<th>$df$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shared memory</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal elaborations</td>
<td>1</td>
<td>Culture</td>
<td>.15</td>
<td>.38</td>
<td>31.85</td>
<td>1, 185</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Culture</td>
<td>.07</td>
<td>.17</td>
<td>13.50</td>
<td>1, 184</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maternal elaborations</td>
<td>.57</td>
<td>.73</td>
<td>242.83</td>
<td>1, 184</td>
</tr>
<tr>
<td>Maternal evaluations</td>
<td>1</td>
<td>Culture</td>
<td>.15</td>
<td>.38</td>
<td>31.85</td>
<td>1, 185</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Culture</td>
<td>.04</td>
<td>.10</td>
<td>7.26</td>
<td>1, 184</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maternal evaluations</td>
<td>.73</td>
<td>.84</td>
<td>486.45</td>
<td>1, 184</td>
</tr>
<tr>
<td><strong>Independent memory</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal evaluations</td>
<td>1</td>
<td>Culture</td>
<td>.06</td>
<td>.25</td>
<td>12.84</td>
<td>1, 186</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Culture</td>
<td>.03</td>
<td>.19</td>
<td>6.33</td>
<td>1, 183</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maternal evaluations</td>
<td>.04</td>
<td>.20</td>
<td>6.96</td>
<td>1, 183</td>
</tr>
<tr>
<td>Child agentic self</td>
<td>1</td>
<td>Culture</td>
<td>.06</td>
<td>.25</td>
<td>12.84</td>
<td>1, 186</td>
</tr>
<tr>
<td></td>
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<td>Culture</td>
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<td>.17</td>
<td>5.26</td>
<td>1, 168</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Child agentic self</td>
<td>.07</td>
<td>.27</td>
<td>13.17</td>
<td>1, 168</td>
</tr>
</tbody>
</table>

*Note. $sr^2$ (squared semipartial correlation coefficient) is the proportion of variance in child memory predicted independently by a variable in each step of a model.

*p < .05, **p < .01, ***p < .001, ****p < .0001.
also substantially reduced in both size and significance. Thus, all conditions for mediation were met (Baron & Kenny, 1986). Maternal elaborations and evaluations both mediated culture effects on shared memory reports, and maternal evaluations and child agentic self mediated culture effects on independent memory reports. Although mediation was not complete (i.e., the contribution of culture to child memory in Step 2 was not reduced to zero), 50–73% of the influence of culture on memory was mediated by maternal style and child self-concept variables (MacKinnon et al., 1995).

### Discussion

The present study is the first to test simultaneously the relations of multiple dimensions of maternal reminiscing style and child self-concept to children’s autobiographical memory abilities in a cross-cultural context. It yields important findings about how these factors operate in different cultural settings and are further linked to cultural and individual variations in autobiographical remembering. By examining individual social-cognitive variables within a comparative framework, the study further presents a way to identify possible universal parameters or constraints on a process of development, and how culture is constructed in the particular case of individual interactions (Hong & Chiu, 2001; Lillard, 1997).

Consistent with previous findings (Wang, 2001b; Wang et al., 2000), European American mothers were more elaborative and evaluative than Chinese and Chinese immigrant mothers when reminiscing with their young children. And as predicted, European American children focused more on their personal attributes and agency in understanding themselves than both Chinese groups, a difference previously observed among older children (Wang, 2004) and adults in Asian and Western cultures (e.g., Cousins, 1989; Shweder & Bourne, 1984; Trafimow et al., 1991; Wang, 2001a). Furthermore, compared with Chinese and Chinese immigrant children, European American children recalled more memory information when sharing memories with their mothers and when independently recounting past experiences with a researcher. These results are consistent with previous data of cultural differences in 3-year-olds’ collaborative recounts of the past (Wang, 2001b; Wang et al., 2000). They further supplement previous findings of cultural differences in unscaffolded memory reports among older children (Han et al., 1998; Wang, 2004) and adults (Wang, 2001a, in press; Wang & Conway, 2004).

More important, as predicted, maternal elaborations and evaluations were associated with children’s shared memory reports, independent of other group and individual variables. Thus, regardless of culture, children whose mothers were more elaborative and evaluative in memory conversations recalled more information than children whose mothers were less elaborative and evaluative, although maternal elaborations appeared to have a smaller effect on children’s shared memory in Chinese than in Chinese immigrant and European American groups. Maternal evaluations were also related to children’s independent memory reports such that children whose mothers gave more evaluative feedback during memory sharing recalled more memory information when recounting past experiences with a researcher. Consistent with prior findings (e.g., Harley & Reese, 1999), maternal elaborations were not associated with children’s independent memory at this early age, suggesting that the contributions of an elaborative style may be cumulative and long term rather than concurrent (Farrant & Reese, 2000; Haden et al., 1997; Reese et al., 1993). Furthermore, regardless of culture, children who had a greater agentic self-focus showed more advanced independent memory skills than those who were less oriented toward their agency when defining themselves. Children’s cultural background remained significantly related to their shared and independent autobiographical memories when controlling for other factors. Mediation analyses further indicated that maternal elaborations and evaluations functioned as potent mediators in explaining cultural differences in children’s shared memory reports, and maternal evaluations and child agentic self-focus accounted for cultural differences in children’s independent memory reports.

The present findings thus lend support to the social interactionist theories that view autobiographical memory development as a result of collaborative construction of personal narratives of the past between children and significant adults (see Nelson & Fivush, 2004, for a review). By modeling to children the narrative structure of personal story-telling and by scaffolding their active participation in the conversation, parents help their children represent and reinstate autobiographical information in linguistic forms and further construct coherent, elaborate life stories that can be well integrated into the child’s autobiographical history. This psychosocial process is further embedded within a larger cultural framework that defines the functions of memory sharing, regulates the dynamic transaction between the
conversational partners, and provides references for how personal stories should be formed and shared. Western intellectual traditions view autobiographical memory as a critical source for self-authenticity and a unique individual identity (Bruner, 1990; Hume, 1739/1882; McAdams, 1993; Singer & Salovey, 1993), the development of which is, in turn, paramount in socialization (Miller, Wiley, Fung, & Liang, 1997; Shweder et al., 1998). Accordingly, European American mothers often initiated child-centered, highly elaborative and supportive memory conversations with their children that highlight the importance of the personal past and facilitate the development of autobiographical remembering. In Chinese culture, in contrast, the construction of identity is less dependent on a unique autobiographical history but more on a web of relationships and social hierarchy (Markus & Kitayama, 1991; Triandis, 1989). Thus, by using a low-elaborative, directive, and often mother-centered conversational style, Chinese mothers appeared to downplay the use of memory to construct elaborate personal stories but to affiliate the child with the mother in a relational hierarchy. These stylistic differences in maternal reminiscing were linked to differences in both shared and independent autobiographical recalls between European American and Chinese children.

Furthermore, the present findings suggest that a focus on individual uniqueness and agency in perceiving oneself may facilitate the development of an organized, durable, consciously accessible autobiographical memory system. An agentic self, being primarily represented as a collection of unique individual attributes, gives prominence to personal event information that reflects, expresses, and consolidates such individuality. Consequently, cognitive resources may be channeled into the acquisition, retention, and retrieval of autobiographical memory (Mullen, 1994; Pillemer, 1998; Wang et al., 2004). In contrast, a communal self, with one’s social roles and significant relationships being salient defining features, may draw extensive attention to information related to the social groups one belongs to and not prioritize the development of a unique autobiographical history. The relation of the agentic self-focus to children’s unscaffolded, independent recall in the current study suggests that, by age 3, the autobiographical memory system may be already functionally differentiated among individuals and across cultures, consonant with and further reaffirming one’s cultural self-construct. Patently, such individual cognitive processes may be further amplified by socialization practices such as parent–child reminiscing that facilitate different modes of learning and remembering (Fivush & Wang, 2005; Miller et al., 1997; Minami & McCabe, 1995; Mullen & Yi, 1995; Wang, 2001b).

The construct of autobiographical memory may be universal such that individuals are bound to remember their personal past to maintain a sense of self and continuity, regardless of where they live (Conway & Pleydell-Pearce, 2000). And the ability to relate one’s experiences to others develops early when children start to answer such questions as “What did you see in the science museum?” and “What did you do at Grandma’s last weekend?” (Miller et al., 1997; Nelson & Fivush, 2004). Yet, variations exist both within and across cultures in the extent to which individuals use autobiographical memories to construct a unique personal identity, and in the type of reminiscing individuals are exposed to early on. The micro (e.g., the family) and macro (e.g., the society) cultural contexts thus offer varied affordances, requirements, and preferences for autobiographical memory to develop, which further contributes to different developmental outcomes. The development of autobiographical memory is thus a result of a complex matrix of influences where “culture and the psyche ‘make each other up’” (Shweder et al., 1998, p. 867).

Notably, cultural differences in children’s autobiographical memory were not completely explained (mediated) by maternal reminiscing style or child self-concept variables, and all the tested variables combined only accounted for a small proportion of variance (20%) in children’s independent recall. These results suggest that there are other important factors contributing to early memory development (for a review, see Nelson & Fivush, 2004). For instance, Wang, Hutt, Kulkofsky, McDermott, and Wei (2006) found that preschool children’s knowledge of emotion situations accounted for both individual and cultural variations in their independent memory reports. The present study also provided some evidence for the relations of age and language skills to children’s memory ability, consistent with previous findings (Han et al., 1998; Harley & Reese, 1999; Simcock & Hayne, 2003). These results together support a pluralistic account of autobiographical memory development that highlights the ongoing interactions among various biological, linguistic, cognitive, social, and cultural factors in the process of personal remembering, which, ultimately, lead to the establishment of a consciously accessible, socially shareable autobiographical memory system (Harley & Reese, 1999; Nelson & Fivush, 2004; Pillemer, 1998).
The associations between children’s evaluative self-awareness and their memory were not as strong as expected. Evaluative self-scores were moderately correlated with shared memory reports, but the relation was no longer significant when other variables were taken into account. The relation between evaluative self and independent memory, although of considerable size, did not reach the conventional level of significance. It is possible that the relation between evaluative self and memory was mediated by other factors. Also, unlike other open-ended narrative measures in this study, evaluative self was assessed by maternal reports that may not accurately reflect children’s self-understanding. In addition, although evaluative self-scores were positively correlated with age, there seemed to be a restricted range in the distribution (75% children scored 17 or higher in a possible range of 7–21 points). This could have constrained the associations between evaluative self-scores and memory measures. Obviously, additional research, especially longitudinal work, that includes other measures of evaluative self-awareness is required to delineate the effect of this important aspect of the self on autobiographical memory development.

There were some interesting differences between the native Chinese and Chinese immigrant groups, although they were overall more similar to each other while in contrast with the European American group. Chinese mothers were more elaborative and evaluative than Chinese immigrant mothers during reminiscing, and Chinese children recalled more memory information with their mothers than did Chinese immigrant children. Thus, the Chinese group seems to fall in between the European American and Chinese immigrant groups on measures of mother–child reminiscing. These results support previous observations that, due to recent Western influences and the implementation of the only-child policy in China, Chinese parents, particularly those in large cities like Beijing, often adopt values and practices resembling those of their European American counterparts (Chen et al., in press; Jiao et al., 1986). And not surprisingly, Chinese only children grow up to have a greater agentic self-focus and earlier and more detailed childhood memories than sibling children, and those from urban families have access to earlier childhood memories than their rural peers (Wang et al., 1998). In comparison, first-generation Chinese immigrant parents in the United States may still uphold traditional Chinese values familiar to them before their immigration and therefore tend to use more traditional ways of socialization (Chao & Tseng, 2002; Lee & Zane, 1998).

This may be related to the finding that Chinese immigrant children whose parents had moved earlier to the United States showed a less agentic self-focus. In addition, Chinese immigrant families in this study lived in suburban areas in upstate New York and were perhaps less susceptible to mainstream American culture. Differences in childrearing beliefs and practices between native and immigrant families have also been observed in other ethnic groups (e.g., Bornstein & Cote, 2004), suggesting the pivotal role of cultural transformation in affecting parenting and child development.

Although this study yielded compelling evidence for the hypothesized effects, there are several limitations. Most obvious, this study focused on middle-class families in the United States and China, with the majority of mothers having at least a college education. Additional research exploring a wider variety of socioeconomic classes and maternal educational levels is certainly needed. In addition, mothers in the study were asked to discuss with their children emotionally charged events. This may limit the generalizability of the results to a specific emotion-discussing context. Nevertheless, the pattern of results is consistent with previous cross-cultural data of mother–child reminiscing of past events with no emotional valences requested (Wang et al., 2000). More important, family memory sharing almost always contains spontaneous references to emotions, and conversations of emotional experiences play a crucial role in the development of autobiographical memory (Buckner & Fivush, 1998; Fivush et al., 2003; Welch-Ross, Fasig, & Farrar, 1999).

In addition, the relation of language to child memory was not clear when controlling for other variables. Language plays a critical role in autobiographical remembering by providing both a communicative and a representational tool for memory (e.g., Farrant & Reese, 2000; Fivush, 1998; Nelson & Fivush, 2004). Two factors may be particularly responsible for the current results. First, maternal reports may not adequately reflect children’s language ability and narrative skills, especially in the context of adult-scaffolded memory sharing. This may, in turn, weaken the link between language and child memory. Second, the influence of language may be mediated by other contributing factors. As shown in this study, mothers whose children had more advanced language skills scored higher on both agentic and evaluative self-measures.

Finally, the current data were obtained from a single time point. There are limits to what can be
concluded in the mediation analyses because of the concurrent assessments of maternal style and child self-concept. Longitudinal data are necessary to highlight a developmental perspective to the mutuality of influences among various factors as well as between mothers and children in the processes of autobiographical remembering.

In conclusion, the present findings suggest that the emergence and development of autobiographical memory entail an active constructive process during which cognitive and social factors operate and interact to produce culturally adaptive outcomes. A self that focuses on agency versus community may determine the degree to which cognitive resources are invested in the development of a unique, well-articulated autobiographical history. Family narrative practices of memory sharing further constitute an important resource from which children learn to construct life stories that are precipitates of prevailing cultural views of selfhood and the importance of autobiographical remembering. Under such influences, an autobiographical memory system comes into being that characterizes diversity among individuals and in the meantime sustains commonality in members of the same culture.

References


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