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ARTICLE

Early Reminiscing in Cultural Contexts: Cultural Models, Maternal Reminiscing Styles, and Children's Memories

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The present study examined conversations of 164 mothers from seven different cultural contexts when reminiscing with their 3-year-old children. We chose samples based on their sociodemographic profiles, which represented three different cultural models: (1) autonomy (urban middle-class families from Western societies), (2) relatedness (rural farming families from non-Western societies), and (3) autonomy-relatedness (urban middle-class families from non-Western societies). The results showed that mothers from the autonomous contexts predominantly adopted an elaborative-evaluative reminiscing style (variable-oriented approach) and pattern (person-oriented approach). Mothers from the relational contexts mainly adopted a repetitive reminiscing style and pattern. There was greater heterogeneity for style variables among mothers from autonomous-relational contexts; in addition, the person-oriented approach revealed that the majority of mothers from autonomous-relational contexts showed hybrid style patterns. Thus, the cultural models, and their respective orientations towards autonomy and relatedness, were reflected in the way mothers reminisced with their children. The children's provision of memory elaborations was high in the autonomous contexts, low in the relational contexts, and moderate in the autonomous-relational contexts. Across contexts, maternal evaluations prompted children to contribute memory elaborations. Maternal elaborations were an additional predictor for children's memory, but only for families from the relational cultural model.

Autobiographical memories are memories of specific events that are meaningful to oneself and, overall, they form the personal life story (Nelson, 1993). Individuals remember their personal past to develop and maintain identity and continuity over time (Conway & Pleydell-Pearce, 2000). The onset of language is crucial for the development of autobiographical memory because language enables children not only to discuss past events with others, but also to organize their representations into a narrative structure (Fivush, 1998; Nelson, 1996; Nelson & Fivush, 2004; Reese, 2002). Parents and children actively construct and co-construct autobiographical memories in social interactions during the early years of life (Fivush & Fromhoff, 1988; Hudson, 1990; Nelson & Fivush, 2004; Pillemer & White, 1989; Wang, Leichtman, & Davies, 2000).

Previous research has revealed that the way in which parents, and particularly mothers, talk about past events generally relates to two different styles: 1) an elaborative reminiscing style with many elaborations and evaluations but few repetitions, and 2) a repetitive or low-elaborative reminiscing style with few elaborations and evaluations but many repetitions (e.g., Reese & Fivush, 1993; Reese, Haden, & Fivush, 1993). Children of mothers adopting an elaborative reminiscing style are more responsive and recall more memory information during conversations as well as over time compared with children of mothers adopting a repetitive reminiscing style (Farrant & Reese, 2000; Fivush & Vasudeva, 2002; Haden, 1998; Harley & Reese, 1999; Peterson & McCabe, 1992; Reese & Fivush, 1993; Welch-Ross, 1997). Studies indicate that elaborative reminiscing strengthens children's memory representation of an event (e.g., McGuigan & Salmon, 2004).

Recently, many studies have examined cultural differences in mother-child reminiscing and the development of children's autobiographical memory (e.g., Fivush & Wang, 2005; Han, Leichtman, & Wang, 1998; Leichtman, Wang, & Pillemer, 2003; Mullen & Yi, 1995) among migrant families (Melzi, 2000; Wang, 2007) and families with different ethnic and social class background (Leyva, Reese, Grolnick, & Price, 2008; Reese, Hayne, & MacDonald, 2008). Significant attention has been paid to comparisons between East Asians and European Americans in cross-cultural psychology in general (Kitayama & Cohen, 2007) and in research on mother-child reminiscing (for reviews of comparisons between Asians and European Americans, see Fivush, 2007; Fivush & Haden, 2003).

There are four main findings from cross-cultural studies of parent-child conversations about the past. First, parent-child reminiscing is less frequent in East Asian families than it is in European American families (Mullen & Yi, 1995). Second, East Asian mothers generally adopt a more repetitive reminiscing style compared with European American mothers, whose reminiscing style is generally more elaborative (e.g., Wang, 2001, 2006, 2007; for a review, see Fivush, Haden, & Reese, 2006). Third, as a consequence of their mothers' repetitive reminiscing style, children of East Asian mothers provide fewer memory elaborations during shared conversations about past events with their mothers than do European American children (Wang, 2001, 2006, 2007; Wang & Fivush, 2005; Wang et al., 2000). Finally, the content of mother-child memory conversations varies across different cultural environments (Mullen & Yi, 1995; Wang, 2001; Wang et al., 2000). Autonomous talk characterizes mother-child reminiscing in European American urban middle-class families. Mothers focus on children's personal attributes, preferences, and judgments, thus making the child the major character of the co-constructed story. Compared with East Asian children, European American children make more references to internal states and refer to themselves more often than they refer to others (Han et al., 1998; Wang,

2001). East Asian families, in contrast, emphasize didactic talk stressing moral standards, social norms, or behavioral expectations, with the parent taking the lead role in conversations (Miller, Wiley, Fung, & Liang, 1997; Mullen & Yi, 1995; Wang, 2001; Wang et al., 2000). Accordingly, East Asian children make more didactic statements about moral rules and refer to authority figures more often than European American children do (Wang & Leichtman, 2000).

The cross-cultural differences in the style and content of memory conversations of mothers and children have been related to different cultural models of the self (Fivush & Haden, 2003; Wang, 2007) mainly based on Markus and Kitayama's (1991) framework of independent and interdependent selves. The highly elaborative style of European American mothers is regarded as an expression of the cultural model of independence, which values self-authenticity and individual uniqueness with an agentic or autonomous self-focus. The low-elaborative, repetitive style of East Asian mothers, on the other hand, is regarded as an expression of the cultural model of interdependence, which values compulsory relationships and unanimous loyalty with a relational self-focus (Wang, 2007). Thus, the underlying cultural model seems to be related to the reminiscing style and content of mother-child conversations.

The aim of the present study was to systematically relate different cultural models to maternal reminiscing styles, children's memory contributions, and the content talked about. The constitutive rationale of our study is that of a contextual culture approach (Kağitçibaşı, 1996, 2007; Keller, 2007). Cultural models are assumed to be adaptive to contextual, sociodemographic demands; they can be differentiated according to different emphases on two basic human needs: *autonomy* and *relatedness*. Both these human needs are regarded as basically independent from each other and thus coexist in various combinations (e.g., Keller, 2007).

Autonomy can be regarded as the developmental organizer in Western, urban, highly educated middle-class families. Relationships are defined in terms of autonomous agents (Kitayama, 2000), and self-determined behavior is necessary to become a successful member of the society. Accordingly, mothers value independence, uniqueness, and assertiveness as socialization goals for their children (e.g., Keller et al., 2006). From early on, their interactional strategies foster and encourage children to hold and express their own opinions, preferences, and wishes (Keller, 2007; e.g., for Berlin and Athens samples).

Relatedness represents an adaptation to subsistence-based communal living. Sharing resources and economic and social dependency are necessary for successful living. Mothers value interdependence, hierarchical adaptation, and deference as socialization goals for their children (Keller et al., 2006). Interactional strategies train children to be compliant and fulfill their social role in the communal system (e.g., Keller, 2007; Keller, Demuth, & Yovsi, 2008; Keller, Lohaus, et al., 2004; Keller, Yovsi, et al., 2004; e.g., for rural Nso and rural Indian samples).

Besides these prototypes, there is an *array* of different hybrid models, in which autonomy and relatedness are emphasized to different degrees. The hybrid models can be understood as adaptations to urban, educated lifestyle in historically interdependent, non-Western societies (Kağitçibaşı, 2007; Keller, 2007). In these contexts, mothers value autonomy-oriented and relatedness-oriented socialization goals (e.g., Keller et al., 2006). The emphasis on both autonomy and relatedness is also reflected in their interactional strategies (Keller, 2007; e.g., for Delhi and San José samples).

Based on differences in the maternal belief systems (e.g., socialization goals) as well as their early interactional strategies (Keller, 2007), we would also expect the maternal reminiscing style

and the content on which they focus to mirror these cultural orientations. According to the contextual approach to culture, the participants in studies of autobiographical memory research so far are representing the model of autonomy (e.g., European American middle-class families) and hybrid models of autonomy–relatedness (e.g., middle-class families from Beijing). Representatives of the prototypical model of relatedness (interdependence) as defined by the contextual culture approach (i.e., families from non-Western, rural, formally low-educated contexts) have not yet been studied with respect to mother–child reminiscing.

In previous studies, different conceptualizations have been applied to investigate the three main dimensions of the maternal reminiscing style: elaborations, evaluations, and repetitions (e.g., Cleveland & Reese, 2005; Cleveland, Reese, & Grolnick, 2007; Haden, Ornstein, Rudek, & Cameron, 2009; Reese et al., 1993). To warrant comparability to most studies on reminiscing and especially previous cross-cultural studies (e.g., Wang, 2001, 2006, 2007), we will focus on the primary conceptualization of the three dimensions (elaborations, evaluations, and repetitions) as defined by Fivush, Reese, and others (e.g., Fivush & Fromhoff, 1988; Reese & Fivush, 1993; Reese et al., 1993).

Based on the interpretation of previous results, we assume that both dimensions of the elaborative style—elaborations and evaluations—are an expression of mothers' value of autonomy: Through elaborations, mothers encourage their children to construct a distinctive and detailed personal life story. Evaluations encourage the child to contribute his or her own perspective (i.e., through confirmations) and foster the understanding of having a unique and disputable perspective on events (i.e., through negations). In the present study, we will call this style *elaborative–evaluative* to emphasize both style characteristics. In contrast, we assume that the dimension of repetitions mirrors mothers' value of relatedness for their children: Being the experienced expert, the mother insists through repetitions to recall what she thinks is important, and the child has to follow her lead. Because these dimensions have been shown to be independent from each other (Reese & Fivush, 1993), they can form various combinations of style patterns and might thus also reflect various cultural models.

The Present Study

The goal of the present investigation was to examine mother–child past-event conversations with respect to the length of conversations, the maternal reminiscing style, child memory, and the content reminisced about in different cultural contexts. Cultural contexts were chosen to represent the two prototypical cultural models and hybrid models. In line with the contextual approach to culture, we assessed conversations of mother–child dyads in 1) Western middle-class families with high levels of formal education from areas with high population densities: Berlin, Germany, and Athens, Greece; 2) rural subsistence-based families with low formal education from non-Western contexts with low population densities: members of the Nso ethnic group in Cameroon, and from Gujarat, India; and 3) urban, educated middle-class families from non-Western, traditionally relational societies: San José, Costa Rica, Delhi, India, and urban Nso, Cameroon. Thus, we selected at least two contexts representing each cultural model: The Berlin and Athens contexts represented the model of autonomy, the rural Nso and rural Gujarat contexts represented the model of relatedness, and the San José, Delhi, and urban Nso contexts represented the model of autonomy–relatedness. Mother–child conversations about the past were assessed when children

were 3 years old. At this age, children are universally able to talk, and it is the mean age in which past-event conversations occur in a number of cultural contexts (e.g., Eisenberg, 1985; Fivush, Gray, & Fromhoff, 1987; Fivush & Haden, 2003; Miller et al., 1997; Mullen & Yi, 1995; Wang et al., 2000).

For all investigated characteristics of mother–child conversations (conversational length, maternal reminiscing style, child memory, and content), we took a *variable-oriented* approach by analyzing mean differences among cultural contexts. To supplement the variable-oriented approach, we also applied a *person-oriented* approach (e.g., Bergman & El-Khoury, 2001; Magnusson, 1999) for analyzing the maternal reminiscing style. Mothers' individual *style pattern* was investigated by determining their style configurations based on the differential use of elaborations, evaluations, and repetitions. This allowed us to determine whether the cultural models were also reflected on an individual level.

We had five major hypotheses:

Conversation length. We predicted that the past-event conversations of mother–child dyads from autonomous contexts would be longer than conversations of dyads from relational contexts. We expected the conversations of mother–child dyads from autonomous–relational contexts to be intermediate in length compared with those from autonomous and relational contexts.

Maternal reminiscing style. Taking a *variable-oriented* approach, we expected that mothers from autonomous contexts would provide significantly more elaborations and evaluations than mothers from relational contexts, who were predicted to provide more repetitions. We expected that the reminiscing styles of mothers from autonomous–relational contexts would reflect hybrid styles in that they would be similar to the autonomous contexts on some dimensions and similar to the relational contexts on others: for example in being as evaluative as the autonomous contexts but as repetitive as the relational contexts.

Applying a *person-oriented* approach by determining each mother's style pattern, we expected that mothers from autonomous contexts would predominantly use the elaborative–evaluative style pattern, mothers from relational contexts would predominantly use the repetitive style pattern, and mothers from different autonomous–relational contexts would use a range of different hybrid style patterns (see Table 1).

Children's provision of memory elaborations. Due to the expected elaborative–evaluative style of mothers from autonomous contexts, we expected children from those contexts to provide significantly more memory elaborations compared with children from relational contexts, whose

TABLE 1
Different Compositions of Maternal Reminiscing Style Patterns

	<i>Primary styles</i>		<i>Hybrid styles</i>			
	<i>Elaborative–evaluative</i>	<i>Repetitive</i>	<i>Elaborative–repetitive</i>	<i>Repetitive–evaluative</i>	<i>Evaluative</i>	<i>Elaborative</i>
Elaborations	high	low	high	low	low	high
Evaluations	high	low	low	high	high	low
Repetitions	low	high	high	high	low	low

mothers were expected to employ a repetitive style (e.g., Reese & Fivush, 1993). We further expected that children from the autonomous–relational contexts would provide more memory elaborations than children from the relational contexts would, but less than children from the autonomous contexts would, due to their mothers' hybrid reminiscing styles.

Relationship between maternal reminiscing styles and child memory. Across cultural models, we hypothesized that both maternal elaborations and evaluations but not repetitions would predict children's contribution of memory elaborations—with maternal elaborations having the strongest effect (e.g., Farrant & Reese, 2000; Haden, 1998; Reese et al., 1993; Wang, 2007).

In analyses of children's memories as a function of the maternal style patterns (independent of cultural context and model), we predicted that children would contribute most memory elaborations if their mothers adopted an elaborative–evaluative style pattern. Likewise, we hypothesized that children would be the least likely to reminisce if their mothers adopted a repetitive style pattern and that children would exhibit frequencies of memory elaborations falling between these two groups if their mothers adopted a hybrid style pattern.

Content. We predicted that mothers and children from autonomous contexts, compared with those from relational contexts, would focus significantly more on personal judgments and preferences ("autonomous talk"; see Wang, 2001; Wang et al., 2000). Mother–child pairs from relational contexts were expected to focus significantly more on concern for authority, including moral correctness and appropriate behavioral conduct ("didactic talk"), compared with the autonomous contexts. Again, we hypothesized that mother–child pairs from autonomous–relational contexts would take an intermediate position in their references to autonomous and didactic talk (Keller et al., 2006).

METHOD

Participants

The sample consisted of 164 mothers and their 3-year-old children (+4 weeks maximum) from the different cultural contexts. These mother–child dyads were distributed among the three different cultural models as follows: 1) *autonomy*: 36 German middle-class dyads from Berlin (47% girls) and 12 Greek middle-class dyads from Athens (50% girls); 2) *relatedness*: 28 Cameroonian dyads from rural Nso (64% girls) and 26 Indian rural dyads from Gujarat (52% girls); 3) *autonomy–relatedness*: 12 Cameroonian dyads from urban Nso (58% girls), 19 Costa Rican middle-class dyads from San José (58% girls), and 31 Indian urban middle-class dyads from Delhi (48% girls). Due to the exclusion of 3 dyads, final analyses were conducted on 161 participants (see p. 8, Coding). The gender distribution did not differ significantly among the contexts, $\chi^2(6, N = 161) = 2.54, p > .10$. Families from all contexts were recruited in line with local customs through pediatricians, health care workers, traditional midwives, health centers, hospitals, and prenatal and postnatal centers.

For all analyses of the sociodemographic variables, we conducted univariate one-way analyses of variance (ANOVAs) followed by lowest significant difference (LSD) post-hoc tests

TABLE 2
Sociodemographic Characteristics of Each Cultural Context

	<i>Model of autonomy</i>				<i>Model of autonomy–relatedness</i>				<i>Model of relatedness</i>					
	<i>Berlin</i>		<i>Athens</i>		<i>San José</i>		<i>Delhi</i>		<i>Urban Nso</i>		<i>Rural Nso</i>		<i>Rural Gujarat</i>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Years of school attendance	15.36 _a	3.55	14.50 _{a/b}	2.61	13.50 _b	4.00	15.97 _a	1.66	14.00 _{c/b}	2.30	6.85 _d	0.80	4.35 _e	3.37
Maternal age at birth of first child	31.69 _a	4.87	30.90 _a	4.56	24.29 _b	1.35	26.23 _c	3.00	22.33 _{b/d}	2.71	19.27 _e	1.69	19.17 _e	2.35
Number of people living in the household	3.67 _{a/b}	0.79	4.43 _{a/c}	0.72	4.78 _c	1.69	6.31 _a	2.16	6.27 _{b/c}	1.71	7.00 _d	4.18	7.00 _e	3.09
Firstborn (%)	69.4		83.3		63.2		38.7		33.3		35.7		34.8	
Girls (%)	47.2		50.0		57.9		48.4		58.3		64.3		52.2	

Note. Indexed letters indicate results of simple main effects testing (using LSD, $p < .05$); samples not sharing indexed letters differ significantly from each other.

with a significance level of $p < .05$. Partial eta-squared (partial η^2) are reported as an indicator of effect size.

As hypothesized, the sociodemographic profiles differed across the contexts in three main perspectives (see Table 2). First, maternal education, measured by the number of years the mother attended school, differed among contexts, $F(6, 154) = 66.75$, $p < .001$, partial $\eta^2 = .72$. Mothers from autonomous as well as autonomous–relational contexts attended school significantly longer than did mothers from relational contexts. Second, the age of the mother when the first child was born differed among the contexts, $F(6, 154) = 60.61$, $p < .001$, partial $\eta^2 = .70$. Mothers from autonomous contexts were significantly older compared with mothers from relational contexts when they gave birth to their first child. At the birth of their first child, mothers from autonomous–relational contexts were significantly younger compared with mothers from autonomous contexts and were significantly older compared with mothers from relational contexts. Third, the number of people living in the household differed among contexts, $F(6, 154) = 7.84$, $p < .001$, partial $\eta^2 = .23$. Families from relational contexts lived with significantly more people in their households than did families from autonomous contexts, as did the autonomous–relational families from Delhi and urban Nso. In contrast, the autonomous–relational families from San José lived in households similar in size to those of families from autonomous contexts.

Procedure

We followed Reese and Fivush's (1993) procedure for assessing mother–child past-event conversations. A native female researcher visited each participating family. After a warm-up phase with the family, the researcher asked the mother to converse with her child about two shared past events that had occurred within the last 4 weeks. The researcher pointed out that the events should be specific one-time events that did not last longer than 1 day. It was further stressed that

the events should not include a storyline, as in a book or a film, or daily routine events (e.g., going shopping). The mothers chose a place for the conversation where the child felt most comfortable. No time limit was set for the conversations. The mother–child conversations were audio-taped for later transcription. Children received a small gift for participating.

The research setting and the situation differed in some respects among the contexts. First, conversations between mother–child dyads in the urban contexts—Berlin, Athens, San José, Delhi, and urban Nso—always took place in the family home. Mother and child sat on chairs, on a sofa, or on the floor. In the rural contexts—rural Gujarat and rural Nso—conversations took place inside or outside the house. Mother and child sat on the floor in most cases. In the rural Nso context, in some cases, mother and child also sat on typical wooden stools. These differences were necessary to make assessments in ecologically valid situations. In addition, in several cases, mother and child were not alone. The researchers made sure, however, that nobody else intervened in the conversation.

Coding

Local research assistants transcribed the recorded conversations verbatim in the original languages: German in the Berlin context, Greek in the Athens context, Hindi in the Delhi context, Lamnso in the urban and rural Nso contexts, and Gujarati in the rural Gujarat context. Trained German research assistants coded the original transcripts in their native language (German in Berlin), German translations (Athens and San José), or English translations (Delhi, urban Nso, rural Nso, rural Gujarat). Applying coding in different languages was necessary, because native speakers with prominent German-language proficiencies were not available in all places to conduct German translations.

As a preliminary step, a pair of coders evaluated each event discussion for being specific (not a generic recount; e.g., Mother: “What do we always do when visiting grandma?”) and for being a shared event (meaning both mother and child were present at the memorized event). Only specific, shared past events were considered and coded. Ten past-event conversations were excluded. With the exception of three mother–child dyads, all participants discussed at least one event that met the inclusion criteria. As such, exclusion of 10 past-event conversations resulted in the loss of only three mother–child dyads from the total sample, all of which were from the rural Gujarat context. The mean number of past events discussed by each mother–child dyad did not differ significantly among contexts (see Table 3); however, a chi-square test revealed

TABLE 3
Number and Range of Analyzed Event Discussions per Cultural Context

	<i>Berlin</i> (<i>n</i> = 36)	<i>Athens</i> (<i>n</i> = 12)	<i>San José</i> (<i>n</i> = 19)	<i>Delhi</i> (<i>n</i> = 31)	<i>Urban Nso</i> (<i>n</i> = 12)	<i>Rural Nso</i> (<i>n</i> = 28)	<i>Rural Gujarat</i> (<i>n</i> = 23)
Total events analyzed	65	23	40	60	19	47	39
<i>M</i> (<i>SD</i>)	1.81 (0.48)	1.92 (0.51)	2.11 (0.57)	1.94 (0.51)	1.58 (0.51)	1.68 (0.67)	1.70 (0.82)
One event % (frequency)	22% (8)	17% (2)	11% (2)	16% (5)	42% (5)	43% (12)	52% (12)
Two events % (frequency)	75% (27)	75% (9)	68% (13)	74% (23)	58% (7)	46% (13)	26% (6)
Three events % (frequency)	3% (1)	8% (1)	21% (4)	10% (3)	—	11% (3)	22% (5)

a significant difference in the distribution of discussed past events among the seven cultural contexts, $\chi^2(12, N=161)=28.47, p<.01$. As indicated by standardized residuals (*SR*), mother–child dyads in the Gujarat context discussed 1 (*SR* = 2.1) or 3 events (*SR* = 1.7) more often and 2 events (*SR* = -2.1) significantly less often than expected by chance. Mean frequencies per event were calculated for reminiscing style codes, child memory, and content codes (cf. Reese & Fivush, 1993).

The specific, shared past-event conversations were then coded for the overall theme. Descriptive statistics for the different themes of conversational topics are listed in Table 4.

Within each conversation, coders identified the beginning and end of each past event. Coders defined a past event as beginning when the mothers introduced the topic of the event with an elaboration or a memory prompt. The episode was considered finished when off-topic talk started and continued.

Reminiscing style. For coding maternal reminiscing style (i.e., elaborations, evaluations, and repetitions) and children’s memory elaborations, we adopted Reese and Fivush’s (1993) coding scheme. Codes were mutually exclusive, and coders used propositions as coding units. Only for evaluations, the coding unit could be single-word occurrences—for example, “yes,” “right.” Propositions were defined as independent clauses, with each unique or implied verb in an independent clause forming a new proposition. For example, “You jumped and jumped” was one proposition, whereas “You jumped and ran” was coded as two propositions.

Reminiscing style was only coded for propositions referring to the specific past event under discussion. All propositions referring to the specific past event add up to *event talk*. Besides event talk, utterances (i.e., propositions) that did not directly refer to the past event but were related to it on a general level (e.g., “What is your cousin’s name?”) or related to the conversational task on a meta-level (e.g., “Can’t you remember?”) were coded as *associative talk* and *meta-talk*, respectively. Maternal or child utterances (i.e., turns) that were completely unrelated to the past event were coded as *off-topic talk* (Reese & Fivush, 1993). Generally, the proportion of *event talk* was relatively high and ranged between $M = 0.76$ ($SD = 0.17$) in the rural Gujarat context and $M = 0.89$ ($SD = 0.10$) in the urban Nso context.

Conversational length was defined as the sum of all codes recorded for the entire conversation and thus included all *event talk*, *associative talk*, *meta-talk*, and *off-topic talk* codes.

TABLE 4
Themes of Conversational Topics (Percentages and Frequencies) Discussed in Each Cultural Context

	<i>Berlin</i> (<i>n</i> = 36)	<i>Athens</i> (<i>n</i> = 12)	<i>San José</i> (<i>n</i> = 19)	<i>Delhi</i> (<i>n</i> = 31)	<i>Urban Nso</i> (<i>n</i> = 12)	<i>Rural Nso</i> (<i>n</i> = 28)	<i>Rural Gujarat</i> (<i>n</i> = 23)
Excursion	28% (18)	57% (13)	73% (29)	20% (12)	11% (2)	—	26% (10)
Visit	38% (25)	30% (7)	10% (4)	30% (18)	26% (5)	64% (30)	44% (17)
Celebration	23% (15)	—	8% (3)	38% (23)	16% (3)	—	—
Church/temple visit	2% (1)	4% (1)	8% (3)	7% (4)	—	11% (5)	15% (6)
Food	—	—	—	—	26% (5)	11% (5)	3% (1)
Specific cultural event	—	—	—	—	5% (1)	9% (4)	—
Miscellaneous	9% (6)	9% (2)	3% (1)	5% (3)	16% (3)	6% (3)	13% (5)

Maternal elaborations were defined as comments made by the mother that introduced the event being discussed or added new information about the event. New information could be provided in: a) open-ended questions (e.g., “What was Yiika’s child doing?”); b) yes–no questions (e.g., “Did you hang balloons?”); c) tag questions (e.g., “Then you danced, right?”); d) statements (e.g., “We also saw a horse”), or e) repeat orders (e.g., “Say we went to grandma’s!”).

Repetitions were defined as utterances that added no new information to the conversation. The mother either repeated the exact content or the gist of one of her previous statements or questions or she prompted for memory information without providing new information and without leading the conversation to a new aspect of the experience (e.g., “tell,” “tell me more about it,” “say”).

Maternal evaluations were defined as a) positive remarks that confirmed the child’s utterance with either “yes” or “right” or by repeating the child’s utterance (e.g., “Right. We went to the garden”), or b) negative remarks that negated the child’s previous statement either by saying “no” or “that is not correct” or by repeating the child’s utterance including a negation (e.g., “No. We did not go to the garden”). Evaluations were coded by occurrence and not by independent clauses (e.g., Child: “A big cake.” Mother: “Yes! It was a big cake.”). In such cases, we coded the maternal response as two confirmations (adopted from Wang et al., 2000).

Children’s memory elaborations were defined as the child adding new information about the event under discussion (e.g., “I was dancing”). Questions asked by the child were also coded as memory elaborations as long as they contained new information (e.g., “Was this in the garden?”).

Content. In terms of content coding, we adapted Wang’s (2001) categories. The coding unit for content codes was based on subject–verb constructions. Content was coded within *event talk* and *associative talk*.

Autonomous talk referred to maternal statements or questions about personal judgments and the child’s personal preferences as well as the child’s utterances about his or her own personal judgments or preferences (e.g., Mother: “What did you like most about the birthday party?” Child: “It was boring.”).

Didactic talk referred to a) mother or child references to an aspect of the discussed event that one had to do, should do, or could do relative to a specific situation (e.g., Mother: “We had to go there.” Mother: “You shouldn’t have eaten so much.”); or b) references made by the mother or child to social conventions and moral rules (e.g., Mother: “Children have to help their parents.”).

Reliability. Two research assistants coded 20% of the transcripts for each cultural context independently from each other. Interrater agreement was 95.0% for structure (maternal style and child memory) and 93.3% for content coding (Cohen’s kappa = .94 and .93, respectively). The same two research assistants coded half of the remaining transcripts each. We did additional reliability checks for the San José context to substantiate the coding system’s reliability across original and translated transcripts. A trained research assistant who spoke fluent Spanish coded 20% of the San José context’s transcripts in Spanish, while a second trained research assistant (native German) coded the German translations. Reliability was high, with 88.9% agreement (Cohen’s kappa = .86) for structure codes and 93.3% agreement (Cohen’s kappa = .91) for content codes.

RESULTS

Structure of Statistical Analyses

First, we will report variable-oriented analyses (conducting univariate and multivariate ANOVAs) identifying mean differences across cultural contexts for conversational length, maternal reminiscing style (i.e., elaborations, evaluations, and repetitions), children's memory elaborations, and content (i.e., maternal and child autonomous and didactic talk) of conversations. Second, person-oriented analyses are reported (conducting cross-tabulations) and illustrate the rise of maternal reminiscing style patterns from different combinations of elaborations, evaluations, and repetitions on an individual level (see Table 1). Third, regression analyses are conducted to delineate the relationship between the maternal reminiscing styles and children's memories. Finally, children's memory elaborations will be analyzed as a function of the maternal reminiscing style patterns.

In all of the comparisons that follow, we first carried out 2 (child gender) \times 7 (cultural context: Berlin, Athens, San José, Delhi, urban Nso, rural Nso, Gujarat) one-way multivariate analyses of variance (MANOVAs) as well as one-way ANOVAs. There was, however, no main or interaction effect for gender in any of the analyses except for children's memory elaborations. We will thus report a 2 (child gender) \times 7 (cultural context) ANOVA for children's memory elaborations. For all other analyses, we report results of the one-way (cultural context) ANOVAs.

Significant main effects were followed by post-hoc *t*-tests with LSD adjustment, with a significance level of $p < .05$. Partial eta-squared (partial η^2) is additionally reported as an indicator for effect size.

Conversation Length

The conversation-length data were subjected to separate one-way (cultural context: Berlin, Athens, San José, Delhi, urban Nso, rural Nso, Gujarat) ANOVAs for mothers and children (Table 5). Results demonstrate a main effect of cultural context for both mothers, $F(6, 154) = 6.88$, $p < .001$, partial $\eta^2 = .21$, and children, $F(6, 154) = 7.27$, $p < .001$, partial $\eta^2 = .22$. Post-hoc tests reveal that both mothers and children from the two autonomous contexts talked significantly more than did mothers and children from the relational rural Gujarat context. In addition, mothers and children from the autonomous Berlin context had significantly longer conversations than did mothers and children from the relational rural Nso context as well as the three autonomous–relational contexts. The conversation lengths of mothers and children from the three autonomous–relational contexts did not differ significantly from any other contexts (autonomous Athens context and relational contexts).

Maternal Reminiscing Style

The data regarding reminiscing style are presented in Table 5. These data were subjected to a one-way (cultural context) MANOVA, with maternal elaborations, evaluations, and repetitions as dependent variables. The results revealed a significant main effect of maternal reminiscing style, Wilks' $\lambda = .37$, $F(18, 430) = 10.20$, $p < .001$, partial $\eta^2 = .29$. Univariate ANOVAs

TABLE 5
Mean Frequencies per Event for Maternal and Child Variables

	<i>Model of autonomy</i>				<i>Model of autonomy-relatedness</i>				<i>Model of relatedness</i>					
	<i>Berlin</i>		<i>Athens</i>		<i>San José</i>		<i>Delhi</i>		<i>Urban Nso</i>		<i>Rural Nso</i>		<i>Rural Gujarat</i>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Mother														
Conversation length	58.76 _a	29.79	47.69 _{a/b}	21.84	33.51 _{b/c}	22.53	38.13 _{b/c}	18.44	32.33 _{b/c}	14.32	33.82 _{b/c}	16.94	27.13 _c	19.68
Elaborations	23.02 _a	11.33	22.38 _a	7.63	19.13 _{a/b}	13.60	18.52 _{a/b}	10.24	14.75 _{b/c}	7.58	13.01 _c	5.11	8.46 _c	5.88
Evaluations	13.19 _a	7.85	7.38 _b	3.72	4.72 _{b/c}	4.05	5.73 _{b/c}	4.94	3.29 _{c/d}	2.23	4.31 _{b/c}	3.44	0.93 _d	1.54
Repetitions	4.64 _{a/b}	4.81	5.22 _{a/b}	6.06	2.51 _a	2.37	4.92 _{a/b}	3.52	7.96 _{b/c}	5.35	10.20 _c	8.39	9.57 _c	7.32
Autonomous talk	1.96 _a	2.58	2.71 _a	4.21	1.39 _{a/b}	1.35	0.77 _{b/c}	1.10	0.25 _{b/c}	0.62	0.52 _{b/c}	1.14	0.14 _c	0.35
Child														
Conversation length	27.46 _a	14.65	21.13 _{a/b}	7.65	13.15 _{b/c}	10.93	16.39 _{b/c}	9.76	14.88 _{b/c}	9.15	19.31 _{b/c}	10.00	10.59 _c	9.05
Memory elaborations	8.89 _a	5.23	6.90 _{a/b}	3.73	4.95 _{b/c}	6.20	6.97 _{a/b}	5.41	2.25 _c	2.45	3.56 _c	3.71	3.18 _c	2.94

Note. Indexed letters indicate results of simple main effects testing (using LSD, $p < .05$); samples not sharing indexed letters differ significantly from each other.

showed significant effects of cultural context on all three style variables: elaborations, $F(6, 154) = 7.47$, $p < .001$, partial $\eta^2 = .23$; evaluations, $F(6, 154) = 18.17$, $p < .001$, partial $\eta^2 = .41$; and repetitions, $F(6, 154) = 5.80$, $p < .001$, partial $\eta^2 = .18$.

Elaborations. Mothers from both of the autonomous contexts and from the autonomous-relational Delhi and San José contexts elaborated significantly more than mothers from either of the relational contexts. Mothers from the autonomous-relational urban Nso context used significantly fewer elaborations than did mothers from each of the autonomous contexts. Their use of elaborations did not, however, differ significantly from either of the other autonomous-relational contexts or from either of the relational contexts.

Evaluations. Mothers from both of the autonomous contexts used at least marginally significantly more evaluations than did mothers from either of the relational contexts. Mothers from the autonomous-relational Delhi and San José contexts used significantly fewer evaluations compared with mothers from the autonomous Berlin context but significantly more evaluations compared with mothers from the relational rural Gujarati context. Mothers from the autonomous-relational urban Nso context used significantly fewer evaluations compared with mothers from either of the autonomous contexts and did not differ from either of the other autonomous-relational contexts or from either of the relational contexts.

Repetitions. Mothers from both of the autonomous contexts and from the autonomous-relational Delhi and San José contexts used significantly fewer repetitions compared with mothers from either of the relational contexts. Mothers from the autonomous-relational urban Nso context used significantly more repetitions compared with mothers from the autonomous-relational San José context but did not differ from the other contexts in their use of repetitions.

Children's Memory Elaborations

A separate 2 (child gender) \times 7 (cultural context) ANOVA with children's memory elaborations as the dependent variable revealed a significant main effect of cultural context, $F(6, 147) = 6.53$, $p < .001$, partial $\eta^2 = .21$. Furthermore, results revealed a context \times child gender interaction effect, $F(6, 147) = 2.57$, $p < .001$, partial $\eta^2 = .10$. As hypothesized, children from both of the autonomous contexts contributed significantly more memory elaborations to the conversations than did children from either of the relational contexts. Children from the autonomous-relational Delhi context provided as many elaborations as did children from both of the autonomous contexts. They also provided more memory elaborations than children from either of the relational contexts. Children from the autonomous-relational San José context, however, provided significantly fewer elaborations than children from the autonomous Berlin context but not the autonomous Athens context. They also provided an equal rate of memory elaborations compared with children from both of the relational contexts. Children from the autonomous-relational urban Nso context provided significantly fewer memory elaborations compared with children from either of the autonomous contexts as well as children from the autonomous-relational Delhi context.

The context \times child gender interaction effect was due to girls in the Delhi (girls, $M = 9.52$, $SD = 6.13$; boys, $M = 4.57$, $SD = 3.29$) and rural Gujarat (girls, $M = 4.29$, $SD = 3.37$; boys, $M = 1.97$, $SD = 1.85$) contexts providing more memory elaborations than boys, whereas in the rural Nso context, boys provided more memory elaborations than girls (girls, $M = 2.34$, $SD = 3.08$; boys, $M = 5.75$, $SD = 3.87$). In all other contexts, Berlin (girls, $M = 8.44$, $SD = 4.40$; boys, $M = 9.29$, $SD = 5.97$), Athens (girls, $M = 6.67$, $SD = 2.36$; boys, $M = 7.14$, $SD = 4.98$), San José (girls, $M = 5.62$, $SD = 7.89$; boys, $M = 4.02$, $SD = 2.87$), and urban Nso (girls, $M = 1.43$, $SD = 1.24$; boys, $M = 3.40$, $SD = 3.38$) girls and boys contributed a similar amount of memory elaborations to the conversations.

Content

Autonomous talk. Across all contexts, children rarely engaged in autonomous talk ($M = 0.12$, $SD = 0.43$, range = 0–4); approximately 85% of children made no autonomous references. Due to the children's rare use of autonomous talk within the shared conversations, we only analyzed this variable for mothers. Mothers more frequently engaged in autonomous talk ($M = 1.08$, $SD = 2.00$, range = 0–13; see also Table 5); approximately 40% of mothers provided at least one "autonomous" reference. The maternal autonomous talk data were subjected to a one-way (cultural context) ANOVA, which revealed a significant main effect of cultural context, $F(6, 154) = 4.85$, $p < .001$, partial $\eta^2 = .16$. Post-hoc tests revealed that mothers from both of the autonomous contexts provided most autonomous talk—significantly more compared with mothers from the relational contexts and mothers from the autonomous-relational Delhi and urban Nso contexts. Mothers from the autonomous-relational San José context did not differ from the autonomous contexts and engaged in autonomous talk significantly more frequently than did mothers from the relational rural Gujarati context.

Didactic talk. Overall, the occurrence of didactic talk was very low across all of the contexts for mothers ($M = 0.38$, $SD = 0.85$, range = 0–4) as well as for children ($M = 0.12$,

$SD = 0.42$, range = 0–4). A total of 73% of mothers and 89% of children did not make any didactic references at all. Only 9% of mothers used didactic talk more than once per event. Due to its rare occurrence within the shared conversations, we decided not to analyze the didactic talk variable further.

Maternal Reminiscing Style Patterns

In the next step, we analyzed the occurrence of both of the elaborative–evaluative and repetitive style patterns as well as the hybrid style patterns with a person-oriented approach. Eight possible compositions arose from the three characteristics that were deemed to be most important in maternal reminiscing style—elaborations, evaluations, and repetitions. We determined the individual composition of each mother’s style by classifying all mothers as either high or low on the three dimensions. The overall mean score for each category was used as the cutoff point. We used proportional scores (i.e., the number of propositions coded as elaborative, evaluative, and repetitive relative to the total number of propositions in past-event talk) to avoid possible confounds associated with the sheer amount of propositions that mothers provided (i.e., the length of past-event talk). The cutoff scores were as follows: elaborative = 0.54, evaluative = 0.17, and repetitive = 0.21. Eighty-two mothers were classified as highly elaborative, 75 mothers were classified as highly evaluative, and 58 mothers were classified as highly repetitive. Based on the three dichotomous variables for elaborations, evaluations, and repetitions, one variable with eight levels (i.e., the different compositions) was composed. Based on each mother’s combination of being high or low on each dimension, her style pattern was determined (see Table 1).

In the final sample of 161 mothers, 38 (23.6%) mothers had a repetitive style pattern, 35 (21.7%) mothers had an elaborative–evaluative style pattern, 38 (23.6%) mothers had an elaborative style pattern, 27 (16.8%) mothers had an evaluative style pattern, 11 (6.8%) mothers had a repetitive–evaluative style pattern, and 7 (4.3%) mothers had a repetitive–elaborative style pattern (see Table 6). Because the style patterns in which all three characteristics were either

TABLE 6
Cross-Tabulation of Reminiscing Style Patterns by Cultural Models

		<i>Cultural models</i>		
		<i>Autonomous contexts</i> (<i>n</i> = 48)	<i>Autonomous–relational contexts</i> (<i>n</i> = 59)	<i>Relational contexts</i> (<i>n</i> = 49)
Elaborative–evaluative style pattern	Observed frequency (and %)	20 (42%)	12 (20%)	3 (6%)
	Expected frequency (<i>SR</i>)	10.8 (2.8)	13.2 (–0.3)	11.0 (–2.4)
Hybrid style patterns	Observed frequency (and %)	26 (54%)	41 (70%)	16 (33%)
	Expected frequency (<i>SR</i>)	25.5 (0.1)	31.4 (1.7)	26.1 (–2.0)
Repetitive style pattern	Observed frequency (and %)	2 (4%)	6 (10%)	30 (61%)
	Expected frequency (<i>SR</i>)	11.7 (–2.8)	14.4 (–2.2)	11.9 (5.2)

Note. *SR* = Standardized residuals.

high or low were very rare (all high, $n = 2$ (1.2%); both from the rural Nso context; all low, $n = 3$ (1.9%); all from the Delhi context), they were dropped from further analyses.

Next, we analyzed the distribution of the different style patterns (elaborative, repetitive, hybrid) across the different cultural models (autonomous, relational, autonomous–relational). As hypothesized, the distribution of style patterns differed significantly across the three cultural models, $\chi^2(4, N = 156) = 60.93, p < .001$ (see Table 6 for the distribution and statistical values). Post-hoc tests referred to a significant overrepresentation or underrepresentation compared with the expected frequency per cell as assessed by *SR*. As expected, significantly more mothers from contexts with the model of autonomy and significantly fewer mothers from contexts with the model of relatedness used an elaborative–evaluative style pattern. In contrast, significantly more mothers from contexts with the model of relatedness and significantly fewer mothers from contexts with the model of autonomy used a repetitive style pattern. The frequency of mothers from contexts with the autonomous–relational model who used a repetitive style pattern was significantly lower than the expected frequency. These mothers used an elaborative–evaluative style pattern as frequently as was statistically expected. With regard to the hybrid style patterns, mothers from contexts with the model of relatedness were significantly underrepresented (distribution within hybrid style patterns: elaborative, $n = 6$; repetitive–evaluative, $n = 6$; repetitive–elaborative, $N = 3$; evaluative, $n = 1$), and mothers from contexts with the autonomous–relational model were significantly overrepresented (distribution within hybrid style patterns: elaborative, $n = 26$; evaluative, $n = 8$; repetitive–elaborative, $N = 4$; repetitive–evaluative, $n = 3$). The frequency of mothers from contexts with the model of autonomy who used hybrid style patterns, however, did not differ significantly from the expected frequency (distribution within hybrid style patterns: evaluative, $n = 18$; elaborative, $n = 6$; repetitive–evaluative, $n = 2$; repetitive–elaborative, $N = 0$).

We were also interested in the specific hybrid style patterns that were most typical for each of the contexts within the autonomous–relational model. For this purpose, we computed a 6 (reminiscing style pattern) \times 7 (cultural context) cross-tabulation of significant deviations from expected frequencies in the relevant cells. Precondition for interpretation of a cell was an expected frequency of at least five. Although the analysis included the data from all seven cultural contexts, we focus here only on the reminiscing styles that mothers from the three autonomous–relational contexts used. Of the 19 mothers from the San José context, 12 mothers adopted the elaborative style pattern, 6 mothers adopted the elaborative–evaluative style pattern, and 1 mother adopted the evaluative style pattern. Thus, mothers from the San José context were overrepresented in the elaborative style pattern ($SR = 3.4, p < .001$) and underrepresented in the repetitive style pattern ($SR = -2.2, p < .05$). All four of the hybrid style patterns were present within the context of mothers from Delhi: Eleven of the 28 Delhi mothers adopted an elaborative style pattern, 6 mothers adopted an evaluative style pattern, 5 mothers adopted an elaborative–evaluative style pattern, 2 mothers adopted a repetitive style pattern, 2 mothers adopted a repetitive–elaborative style pattern, and 2 mothers adopted a repetitive–evaluative style pattern. There was a trend for mothers from the Delhi context to be overrepresented in the elaborative style pattern ($SR = 1.6, p < .10$) and significantly underrepresented in the repetitive style pattern ($SR = -2.2, p < .05$). There was no overrepresentation or underrepresentation in a specific style pattern in the urban Nso context: Four mothers adopted a repetitive style pattern, 3 mothers adopted an elaborative style pattern, 2 mothers adopted a repetitive–elaborative style pattern, and 3 mothers adopted one of the remaining three style patterns.

Maternal Reminiscing Style and Children's Memory

To investigate the relationship between maternal reminiscing style and children's memory elaborations, we took two different approaches: first, a *continuous* analysis by conducting regression analyses with the maternal style characteristics as independent variables and child memory elaborations as the dependent variables; and secondly, a *typological* analysis, following the person-oriented approach, by comparing children's memory as a function of the maternal style pattern independent of the cultural model.

Due to small sample sizes in some of the contexts (especially Athens and urban Nso), it was statistically not feasible to conduct regression analyses for each context separately. Because mean differences demonstrated similar results in reminiscing styles for contexts with the same cultural model (with the exception of the urban Nso context), we conducted three regression analyses including contexts with the same cultural model respectively.

Prior to regression analyses, we computed simple correlations among all variables, namely children's memory elaborations and the three maternal style variables per cultural model (see Table 7). Generally, all correlations were medium to high and revealed only positive associations: between maternal and child variables as well as among maternal variables.

In each regression analysis, children's memory elaborations were entered as the dependent variable, and mothers' elaborations, evaluations, and repetitions were entered as the predictor variables. Each of the three regression models yielded significance.¹ According to the criteria suggested by Tabachnik and Fidell (2007), multicollinearity was not detected because all conditioning indexes were below 30 ($CI_{max} = 7.44$).

In the autonomous contexts, children's memory elaborations were uniquely predicted by maternal evaluations ($\beta = .78, p < .001$) but not maternal elaborations ($\beta = -.06, ns$) or repetitions ($\beta = .07, ns$), $F(3, 44) = 23.03, p < .001, R_{adj}^2 = .58$.

In the autonomous-relational contexts, the model revealed maternal evaluations as a positive predictor ($\beta = .81, p < .001$) and maternal repetitions as a negative predictor ($\beta = -.15, p < .05$) for children's memory elaborations. Maternal elaborations did not account for unique prediction ($\beta = .10, ns$); $F(3, 58) = 50.04, p < .001, R_{adj}^2 = .71$.²

In the relational contexts, maternal elaborations ($\beta = .42, p < .01$) as well as evaluations ($\beta = .33, p < .05$) but not maternal repetitions ($\beta = -.10, ns$) predicted children's memory elaborations, $F(3, 47) = 11.04, p < .001, R_{adj}^2 = .38$.

To investigate the effect of the different reminiscing style patterns—as ascertained by the person-oriented approach—across all contexts on children's memory, we conducted a one-way (maternal style pattern) ANOVA with children's memory elaborations as the dependent variable. This analysis yielded a significant main effect of maternal style pattern on the amount of memory elaborations that children provided during the shared conversations, $F(5, 150) = 17.34, p < .001$, partial $\eta^2 = .37$. Post-hoc tests revealed that children whose mothers adopted an evaluative style pattern ($M = 10.86, SD = 5.82$) recalled significantly more memory elaborations compared with children of mothers adopting any other style pattern. Children whose mothers used an

¹We ran additional regression analyses in which we entered sociodemographic variables in a first step prior to entering maternal reminiscing variables, but in no case did the sociodemographic variables predict unique variance in children's memory elaborations after entry of the maternal reminiscing variables.

²The results did not change when excluding the urban Nso sample from the regression analysis.

TABLE 7
Simple Correlations Among Child Memory Elaborations and Maternal Style Variables

	<i>Model of autonomy (n = 48)</i>	<i>Model of autonomy– relatedness (n = 62)</i>	<i>Model of relatedness (n = 51)</i>
Correlations among child and maternal variables			
Child elaborations with maternal elaborations	.46**	.55**	.58**
Child elaborations with maternal evaluations	.42**	.83**	.56**
Child elaborations with maternal repetitions	.78**	.05	.18
Correlations among maternal variables			
Elaborations with evaluations	.62**	.59**	.62**
Elaborations with repetitions	.58**	.18	.46**
Evaluations with repetitions	.50**	.22	.25

Note. ** $p < .01$ (two-tailed).

elaborative–evaluative ($M = 7.63$, $SD = 5.30$) or a repetitive–evaluative ($M = 6.85$, $SD = 4.31$) style pattern provided significantly more memory elaborations than did children whose mothers adopted a repetitive ($M = 2.70$, $SD = 2.78$), an elaborative–repetitive ($M = 3.00$, $SD = 3.15$), or an elaborative ($M = 3.13$, $SD = 2.56$) style pattern.

DISCUSSION

The aim of the present study was to investigate mother–child past-event conversations among contexts representing different cultural models: autonomy, relatedness, and hybrid models of autonomy–relatedness. In line with previous conceptualizations and empirical findings, the sociodemographic characteristics of the families who participated defined the contexts that were associated with the different cultural models (Kağitçibaşı, 2005, 2007; Keller, 2003, 2007; Keller et al., 2006). We investigated the length, structure (i.e., maternal reminiscing style and child memory), and content of conversations.

In the two autonomous contexts (Berlin and Athens), conversations were longest and mothers engaged in more autonomous talk than did mothers from the relational contexts (rural Nso and rural Gujarat). Mothers from both autonomous contexts were very similar in their reminiscing styles (variable-oriented approach). Compared with the relational contexts, mothers were highly elaborative and evaluative but used few repetitions. The only difference between the two autonomous contexts was that mothers from the Berlin context provided even more evaluations than did mothers from Athens. Children of the autonomous contexts contributed more memory elaborations compared with children from the relational contexts. These results are overall in line with the high-elaborative autonomy-oriented maternal reminiscing style that Western middle-class families tend to use, such as in European American samples (e.g., Wang, 2001, 2006, 2007). The present results also support previous findings showing that this style is associated with greater provision of memory elaborations by children (Wang, 2001, 2006, 2007; Wang & Fivush, 2005; Wang et al., 2000).

Mothers from the two relational contexts (rural Nso and rural Gujarat) were highly repetitive and were the least elaborative of all of the contexts. They also used few evaluations. Children

from the relational contexts contributed fewer memory elaborations than did children from most other contexts. This goes along with previous studies demonstrating that the repetitive (low-elaborative) style is related to fewer memory elaborations on the child's part (e.g., Fivush & Fromhoff, 1988; Reese & Fivush, 1993).

Results regarding the three autonomous–relational contexts (San José, Delhi, and urban Nso) were more heterogeneous. Generally, the conversations were medium in length. On the content level, mothers from the Delhi and urban Nso contexts engaged in little autonomous talk, whereas mothers from the San José context engaged in autonomous talk more often. The reminiscing styles of mothers from the Delhi and San José contexts were similar to those of the autonomous contexts: They were as elaborative and evaluative as were mothers from at least one of the autonomous contexts and used similarly few repetitions. Mothers from the urban Nso context, on the other hand did not differ in any style characteristic from the relational contexts. Children from the Delhi context provided as many memory elaborations as did children from the autonomous contexts. In contrast, children from the urban Nso context provided very few memory elaborations. Children from the San José context fell intermediate to these two contexts with regard to memory elaborations that they provided.

Concerning the maternal reminiscing style, no gender differences were revealed. This indicates that across contexts, mothers did not differ in how they reminisced with either boys or girls. However, a gender interaction effect was revealed for children's memory elaborations. Results demonstrated that girls of both Indian contexts (Delhi and rural Gujarat) provided more memory elaborations than boys did, whereas it was the other way around in the rural Nso context. This might imply that boys and girls are fulfilling different gender-related expectations in the three cultural contexts—either to listen or to engage in the conversation. Another explanation could be that mothers engage at different frequencies with boys or girls in reminiscing across these contexts. Thus, boys or girls might be more or less used to this type of discourse. This finding is interesting in itself and warrants further study.

Concluding from the mean differences across contexts (variable-oriented analyses), mothers of the autonomous contexts adopted an elaborative–evaluative reminiscing style, while mothers of the relational contexts adopted a repetitive reminiscing style, which was in line with our expectations. The reminiscing style of two of the autonomous–relational contexts (Delhi and San José), however, was rather similar to the elaborative–evaluative style as it was for the autonomous contexts. Additionally, the reminiscing style of mothers from the third autonomous–relational context, urban Nso, reflected the repetitive reminiscing style. Looking at the data this way, the use of hybrid styles by mothers from the autonomous–relational contexts was not as explicit as hypothesized.

However, the person-oriented analyses provided additional insight. Results demonstrated that different reminiscing style patterns were dominant within each of the cultural models. Furthermore, the hybrid style patterns represented discrete constitutions in themselves. There were four hybrid style patterns emerging from the different accentuations of the three investigated style characteristics—elaborations, evaluation, and repetitions: 1) elaborative–repetitive, 2) repetitive–evaluative, 3) evaluative, and 4) elaborative (see Table 1). As expected, all four hybrid style patterns were evident in the mothers' reminiscing styles. In this way, mothers can be highly elaborative and highly repetitive at the same time. Also, a low level of repetitions is not necessarily associated with a high level of elaborations in maternal reminiscing styles. These results confirm results from previous studies, which also demonstrate the independence of the elaborative and repetitive styles

(Reese & Fivush, 1993). Evaluations seem to be an independent component as well—when taking a person-oriented approach—as they did not necessarily occur with one or the other dimension.

In line with the results of the variable-oriented analyses, mothers from autonomous contexts predominantly used an elaborative–evaluative style pattern, whereas mothers from relational contexts predominantly used a repetitive style pattern. However, the person-oriented approach demonstrated that mothers from the autonomous–relational contexts used a combination of hybrid styles as expected when looking at their individual patterns. Specifically, mothers from the San José and Delhi contexts rarely used the repetitive style pattern and predominantly used an elaborative style pattern, including many elaborations, few evaluations, and few repetitions. About 60% (7 of 12) of mothers in the urban Nso context used one of the hybrid style patterns. However, there did not seem to be any dominant maternal style pattern, and one third of mothers also adopted the repetitive style pattern—which was more than it was in the two other autonomous–relational contexts. This may be due to internal rural-to-urban migration of some families in this sample: Some of the urban Nso mothers may have spent their formative years within cultural environments that valued relatedness. In contrast to the Delhi and San José families, which were at least second-generation rural-to-urban migrants, several of the urban Nso families were first-generation migrants to cities and had spent their childhood and adolescence in rural contexts. However, we think the interpretation of this result should be handled with care due to the small sample size of the urban Nso context. Statistically, no style pattern dominated. A preferred style pattern might have been revealed with a bigger sample size and would have allowed for a more explicit interpretation.

Taken together, various style patterns combining characteristics of both the elaborative–evaluative and repetitive reminiscing styles in different ways seem to occur in various autonomous–relational contexts. Our results suggest that autonomous–relational contexts differ in their heterogeneity or homogeneity to use several or one specific hybrid style pattern: In the San José context, a statistically significant preference for one of the hybrid style patterns was applicable; however, for the Delhi context, this was only a trend, and for the urban Nso context, no specific hybrid style pattern was dominant. In general, however, the style patterns of mothers from autonomous–relational contexts are clearly distinct from the style patterns used by mothers from relational contexts. It was only in the relational contexts that the repetitive style pattern (many repetitions but few elaborations and evaluations) was overrepresented.

The different maternal reminiscing styles and the content talked about can be thought of as being adaptive and functional within the respective cultural contexts. The conversations reflect the socialization goals embodied by the different cultural models. Mothers from autonomous contexts use reminiscing to jointly construct memories in a quasi-equal relationship. Through elaborations and evaluations as well as autonomous talk, these mothers encourage their children to construct a distinctive personal life story and to negotiate their own perspectives, preferences, and personal judgments. Thus, mothers encourage their children to develop an autonomous self that is distinct from others (for review, see Fivush, 2007).

Mothers from relational contexts are rather controlling during reminiscing, reflecting their socialization goals of obedience, compliance, and respect (Abels, 2006; Keller et al., 2008). These mothers use a high level of repetitions and a low level of elaborations and evaluations, and they do not negotiate or discuss the shared memories. These mothers most often lead the conversations and insist that their children answer their questions. They rarely ask their children for personal judgments and opinions. Thus, the mother does not emphasize the individual and

exclusive perspective of the child. The way to reminisce reflects a hierarchical expert–novice relationship between mother and child. In this way, children are primed into their social roles and responsibilities in a close-knit community.

Mothers from autonomous–relational contexts use a range of different hybrid reminiscing styles. An orientation toward autonomy is either expressed by a high level of elaborations or evaluations, or a low level of repetitions. It is unclear why mothers from different autonomous–relational contexts use different hybrid styles and why some contexts seem to use one hybrid style primarily (San José) or use a variety of them (Delhi, urban Nso). Future research is needed to investigate why autonomy and relatedness are expressed in these specific ways in different autonomous–relational contexts.

Overall, we established that the cultural models and the underlying socialization goals (Keller et al., 2006) were reflected in the maternal reminiscing styles. How did these different styles relate to children’s memory?

To answer this question, we first investigated the role of each maternal style dimension to children’s memories by applying regression analyses. Overall, variance explained by the maternal style dimensions in children’s memories was highest in the autonomous–relational contexts (71%), intermediate in the autonomous contexts (58%), and lowest in the relational contexts (38%). Thus, variance explained by the maternal reminiscing style was very high across contexts. However, especially in the relational contexts, other factors seem to be important beside the maternal reminiscing style.

In both contexts with the model of autonomy and autonomous–relational, maternal evaluations but not elaborations were related to children’s memory. In the contexts with the model of relatedness, maternal evaluations and elaborations were related to children’s memory contributions, with the statistical correlation being highest for maternal elaborations. This is similar to correlation results for 4-year-olds from relational contexts (Schröder et al., 2011). Only in autonomous–relational contexts were maternal repetitions negatively related to children’s memory elaborations. This relationship was, however, very weak compared with the one between maternal evaluations and children’s memory contributions. Maternal repetitions were not related to children’s memories within the models of autonomy or relatedness.

Secondly, we investigated children’s memory elaborations as a function of maternal style pattern. Results for the typological-based analyses (with mothers’ individual style patterns as an independent variable) of children’s memory elaborations revealed that children whose mothers used either an elaborative–evaluative, an evaluative, or a repetitive–evaluative style pattern contributed more memory elaborations than did children whose mothers used any other style pattern. Contrary to our predictions, we found that children of mothers who used an elaborative–evaluative style pattern did not contribute the most elaborations. Instead, children whose mothers used an evaluative style pattern provided the most memory elaborations.

Concluding from results of both the continuous and typological analyses, across cultural models, maternal evaluations (i.e., confirmations and negations) seem to play an important role in children’s contributions of memory elaborations during shared reminiscing. These results are contrary to our hypotheses and surprising because previous studies revealed maternal elaborations as the most critical factor for children’s memory (see Fivush et al., 2006, for a review). However, it has to be kept in mind that the present results refer to relationships *during* conversations only. During conversations, reciprocal mechanisms of maternal evaluations and children’s memory elaborations (e.g., Farrant & Reese, 2000) might explain the high correlations: Mostly, maternal

evaluations are in response to their child's contributions. The more the child contributes, the more evaluations the mother may provide in return. This could also explain why maternal elaborations are more important for children in the relational contexts. In these contexts, children contributed fewer memory elaborations compared with the other contexts. For children from relational contexts, maternal elaborations are still as important as maternal evaluations. In the autonomous and autonomous–relational contexts, children might already contribute more themselves and maternal evaluations can have a stronger effect.

Surprisingly, there is no additive effect of maternal elaborations and evaluations when looking at the maternal style patterns. It seems that as soon as the frequency of either elaborations or repetitions increases, children provide fewer memory elaborations. This may be because as maternal elaborations increase, children themselves have to contribute fewer memory elaborations to keep the conversation going. Alternatively, the less the child contributes, the more the mother may try to encourage the child to contribute, either by elaborating about the event under discussion or by repeating what her child said before. In support of this view, past studies have shown that there is concurrent and longitudinal bidirectionality in maternal elaborations, maternal evaluations, and child contributions (e.g., Farrant & Reese, 2000; Reese et al., 1993, Wang, 2007). These studies have, however, investigated single effects of maternal elaborations and evaluations on children's contributions and not of maternal style patterns.

Based on our cross-sectional study, however, we cannot conclude about longitudinal correlations of maternal evaluations. Farrant and Reese (2000) demonstrated longitudinal correlations of maternal confirmations for children's memory across the preschool years, even though they found a stronger role for elaborations than confirmations. Moreover, they revealed that concurrently as well as over time, the more open-ended memory questions mothers asked, the more likely children were to contribute memory elaborations. In contrast, maternal statement elaborations were not related to children's memory contributions. Based on our study, we cannot draw conclusions about these specificities because we analyzed the aggregate of different types of elaborations (including open-ended, yes/no, and statement elaborations) and the aggregate of confirmations and negations as evaluations (see Appendix for means of sub-categories).

As a limitation of this typological based analysis, it is important to keep in mind that cultural contexts (seven) and cultural models (three) could not be considered separately due to the multifactorial independent variable (six style patterns), unequal distribution of styles within contexts, and small sample sizes. Thus, future research needs to clarify whether the revealed effects of maternal styles hold within contexts with different cultural models.

Overall, we think that taking a person-oriented perspective was illuminating and allowed for additional insights that would not have been gained with the variable-oriented approach. It would be very interesting for future research to investigate maternal reminiscing style patterns with a person-oriented approach in more autonomous–relational contexts. Hybrid style patterns might also be reflected in these contexts when taking a person-oriented approach.

There are some additional limitations to the present study. We do not know how frequently mothers and children reminisce during daily life across contexts with different cultural models. There are studies (Mullen & Yi, 1995; Tōugu, Tulviste, Schröder, Keller, & De Geer, 2011) suggesting variation across cultural contexts in the frequency of engaging in reminiscing.

Furthermore, due to multiple care systems in relational contexts (Keller, 2007), mothers might have had fewer *specific* shared experiences to recall with their children. Descriptive results suggest that the themes discussed by dyads of the relational contexts (e.g., visit to the church,

food, cultural events) might be less novel compared with topics discussed by the other contexts (such as excursions or visits; see Table 4). Novelty might also be related to mothers' use of repetitions: Having fewer specific events to discuss might lead to mothers being more repetitive. However, we suggest that the repetitive reminiscing style is rather reflecting the relational socialization strategy. Studies on maternal conversation styles in settings other than reminiscing support this assumption. In these studies, similar cultural differences in repetitiveness were found when mothers of autonomous and relational contexts interacted with their 3-month-old infants (Demuth, 2008; Demuth, Keller, & Yovsi, 2011). The repetitive style seems to be a socialization strategy across different time points and settings of socialization. More fine-grained coding would moreover be needed to determine the novelty of events. Based on our overall descriptions of event themes, conclusions are difficult to draw. Future studies could investigate this interesting aspect in more depth.

The present results may also reflect different narrative traditions across the different cultural contexts. In the autonomous contexts, reminiscing takes the form of a dialogue where the focus is on the child. In the relational contexts, reminiscing takes the form of a narrative account by the mother. Thus, further research concerning the different types of narrations in different cultural contexts is needed (see also Reese et al., 2008). Cultural differences in most common reminiscing partners—such as grandparents or siblings (see also Fivush, 2007; Fivush et al., 2006)—as well as the function (autonomy support, controlling) of conversations about the past (Cleveland & Reese, 2005; Cleveland et al., 2007) would also be fruitful areas for future research.

In conclusion, different reminiscing styles are associated with the two cultural models of autonomy and relatedness as well as with cultural contexts that accommodate aspects of both the autonomous and relational cultural model. The cultural context in which we grow up and the underlying cultural model inform the way in which we construct a personal past via conversations with our parents and children. Mother–child reminiscing is a reflection of context-adaptive cultural emphases and priorities.

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APPENDIX

Mean Frequencies per Event for Subcategories of Mothers' Elaborations and Evaluations

	<i>Berlin</i>		<i>Athens</i>		<i>San José</i>		<i>Delhi</i>		<i>Urban Nso</i>		<i>Rural Nso</i>		<i>Gujarat</i>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Elaborations														
Open-ended	6.34	4.10	4.56	2.61	4.00	3.90	7.56	4.93	2.25	2.09	2.75	2.75	4.15	3.43
Closed	8.44	5.18	6.79	3.50	4.02	2.45	4.54	3.11	5.42	3.05	4.21	2.63	1.55	1.30
Statements	8.25	5.48	11.03	7.37	11.11	13.45	6.42	4.36	7.08	4.91	6.05	3.71	2.75	2.63
Evaluations														
Confirmations	11.40	6.02	7.04	3.76	4.30	3.89	5.21	4.23	3.21	2.16	4.10	3.38	0.86	1.51
Negations	1.79	3.38	0.33	0.44	0.42	0.55	0.52	1.13	0.08	0.19	0.21	0.46	0.07	0.25