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Maternal scaffolding styles and children's developing narrative skills: A cross-cultural comparison of autobiographical conversations in the US and Thailand

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ABSTRACT

Cross-cultural differences in reminiscing styles between American and Thai mothers and their four-year-olds were examined. Twenty-one English monolingual and 21 Thai monolingual mother-child dyads participated in a Prompted Reminiscing task (Task 1). Children also completed a Child Personal Narrative task with the researcher (Task 2). Results from the first task revealed that dyads from the two cultures differed in the elaborateness of their conversations. American mothers adopted a high-elaborative style, characterized by greater use of evaluative feedback and scaffolding strategies including descriptions, extensions, labels, and recasts, compared to their Thai counterparts. Thai mothers adopted a low-elaborative style, evidenced by greater use of directives and requests for repetitions. Similar to their mothers, American children adopted a high-elaborative style compared to their Thai peers. Findings from the second task demonstrated that interlocutor scaffolding influences children's communicative styles. When reminiscing without their mother, American children produced longer narratives than their Thai peers. The present work suggested that maternal elicitation strategies differ across cultures and play a role in shaping children's developing narrative skills. By interacting with more competent social partners, particularly their mothers, children start to internalize culture-specific socialization goals and learn to converse in a culturally-appropriate way as early as preschool.

1. Introduction

Children's narrative skill is an important precursor to literacy development and school readiness, and is associated with enhanced memory, larger vocabulary, and better print awareness (Fivush, Haden, & Reese, 2006). Early narrative ability is also related to skills pertinent to social interactions such as emotional recognition and perspective taking (Nelson, 1996). Because of the inherently interpersonal nature of narrative discourse, young children gain competence as narrators by interacting with experienced adults who are able to provide guidance. As a result of this socialization process, parental scaffolding strategies of their children's language skills during the preschool years crucially influence children's later academic achievements. The present study focused on the nature of American and Thai mother-child conversations during dyadic reminiscing, as well as children's individual narrative styles during production of their own autobiographical stories. Specifically, we examined how mother-child discourse differs as a function of cultural background and how maternal and child communicative patterns are related.

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1.1. Variability in parent-child reminiscing styles

One of the ways by which parents expose their children to language is participating in autobiographical reminiscing about past events. Early work in the parent-child communication literature revealed a dichotomy of discourse reminiscing styles (elaborative and repetitive) among mothers (e.g., Fivush & Fromhoff, 1988; Reese & Fivush, 1993). Mothers who adopt an elaborative style tend to talk more and ask open-ended questions to encourage their children to engage in joint reminiscing. Depending on the children's response, elaborative mothers would either integrate the children's contribution into the developing narrative or continue asking questions and adding more information. By doing so, elaborative mothers invite their children to become co-narrators and provide models of coherent narrative accounts. Conversely, repetitive mothers talk less, ask fewer questions, and repeat redundant questions without adding new information when their children do not respond.

The reminiscing styles of mothers in turn influence children's own narrative skills (Fivush et al., 2006). When conversing with unfamiliar adults, children of elaborative mothers tend to tell longer, more descriptive, and more coherent stories (Fivush, 1991; Haden, Haine, & Fivush, 1997; Peterson & McCabe, 1992; Reese, Haden, & Fivush, 1993; Reese & Newcombe, 2007). Furthermore, children whose mothers adopt an elaborative style develop better vocabulary and story comprehension skills (Reese, 1995). These findings suggest that by engaging in co-narrating past events, children learn how to reminisce and adopt a narrative style similar to their mothers when telling their own stories. Additionally, mother-child autobiographical conversations during early development have later implications for children's language and literacy skills that are important for schooling.

1.2. Cross-cultural differences in parent-child reminiscing conversations

Although joint reminiscing is a universal activity in which parents and children participate, as can be seen from mother-child dyads in Asia (e.g., Minami & McCabe, 1995; Wang, Leichtman, & Davies, 2000), North America (e.g., Reese et al., 1993), New Zealand (e.g., Farrant & Reese, 2000), and South America (e.g., Melzi, Schick, & Kennedy, 2011), there are cross-cultural differences in the ways that parents scaffold their children's narratives about the past. For example, reminiscing styles have been shown to differ along the dimension of elaborateness (e.g., Melzi et al., 2011; Wang et al., 2000). Cross-cultural studies comparing mother-child dyads from individualistic and collectivist cultures have shown distinct reminiscing styles, where mothers from individualistic cultures (e.g., Australia and the United States) tend to adopt an elaborative style, whereas mothers from collectivist cultures (e.g., China, Japan, Korea, and Thailand) tend to exhibit a repetitive style (e.g., Minami & McCabe, 1995; Mullen & Yi, 1995; Wang et al., 2000; Winskel, 2010). For instance, conversations of Anglo-Australian dyads are longer and more elaborated relative to Thai dyads (Winskel, 2010). In another study, North American mothers show greater use of evaluative and descriptive responses with their children compared to Japanese mothers (Minami & McCabe, 1995). These differences in maternal elaboration and scaffolding strategies can be explained by the values held by each respective culture where individualistic societies emphasize autonomy and self-expression, and collectivist societies emphasize interdependence, harmony, and filial piety (Markus & Kitayama, 1991; Triandis, 1995).

1.3. Internalization of narrative skills during the preschool years

By engaging in activities with adults, children assimilate and develop the communicative competence to interact with others in their community. The internalization of social norms can be seen in many settings, including in the context of reminiscing and telling personal stories (e.g., Fivush, 1991, Haden et al., 1997; Minami, 2001; Peterson & McCabe, 1992, 1994). By the preschool years, children typically acquire important narrative skills via parental scaffolding and are able to apply those skills when conversing with another adult without linguistic support or guidance. For instance, children whose mothers produced a greater number of evaluative statements during dyadic reminiscing go on to provide more evaluation in their unscaffolded personal narrative (Fivush, 1991). Although previous research (e.g., Leyva et al., 2020; Leyva, Reese, Grolnick, & Price, 2009) has examined parental influences on children's individual narrative abilities among dyads from racially and ethnically diverse groups, these studies have focused on mother-child dyads from one homogenous background. Less is known about children's acquisition of discourse skills across different cultures. A cross-cultural comparison of preschool children's autobiographical conversations with two different interlocutors (their mother and a relatively unfamiliar adult, such as the experimenter) would allow researchers to examine whether children have internalized culture-specific communicative styles and are able to interact with other social partners in a culturally-appropriate manner prior to starting school.

1.4. Gender differences in parent-child reminiscing styles

The ways parents interact with their children can also differ depending on both the gender of the parent and the child. Specifically, there is evidence to suggest that mothers tend to be more elaborative than fathers, and parents are generally more elaborative and more evaluative when reminiscing with daughters than with sons (Haden et al., 1997; Reese et al., 1993; Reese & Fivush, 1993; Reese, Haden, & Fivush, 1996; Zaman & Fivush, 2013). As a result of such gendered socialization, children also differ in

their communicative patterns. For instance, girls' narratives are longer and more evaluative compared to boys' (Haden et al., 1997). These gender differences in parent-child reminiscing interactions provide evidence for how gender expectations are socialized in narrative contexts, and how children may internalize these roles as part of their gender identity development.

Considering that children are socialized differently depending on their culture, as well as their gender, it is important to consider the interplay between these two factors. Previous research that has examined the interaction between culture and gender on elaborateness during autobiographical conversations found no gender effects (e.g., Melzi et al., 2011; Wang et al., 2000). Other research has more specifically looked at the effect of culture and gender on mother-child emotion talk (e.g., Fivush & Wang, 2005; Wang, 2001). American and Chinese mothers did not differ on how they discussed highly negative memories with their daughters compared to with their sons (Fivush & Wang, 2005). But when conversations revolved around emotional events that were more typical of everyday experiences, mothers of both cultures were more likely to provide explanations for their daughters' emotions than their sons' (Wang, 2001). Taken together, these findings suggest that gender roles may be particularly salient when emotions are involved. Overall, though, less is known about how boys and girls from linguistically and culturally diverse groups may be socialized differently during dyadic reminiscing and whether there are cross-cultural differences with regards to the internalization of gender roles during the preschool years.

1.5. The present study

The current study compared narrative discourse in American mother-child dyads in the United States and Thai mother-child dyads in Thailand. In order to examine cross-cultural differences in maternal scaffolding and children's discourse styles, mother-child autobiographical conversations were compared across the two cultures and the relations between maternal and child language patterns were examined (Task 1–Prompted Reminiscing). Additionally, to investigate whether American and Thai children have fully internalized their culture-specific communicative styles during the preschool years, children's individual narrative skills were compared when conversing with an adult who did not provide any linguistic scaffolding (Task 2–Child Personal Narrative).

To elicit conversations between mothers and their children, a prompted reminiscing (i.e., scaffolded reminiscing with the mother) task has often been used (e.g., Kelly & Bailey, 2013; Melzi et al., 2011; Minami & McCabe, 1995; Reese & Fivush, 1993). In this task, mothers are asked to elicit interesting past events and experiences from their children. In previous studies, types of past events elicited by mothers include events during which both the mother and the child were present, and events during which the child experienced positive or/and negative emotions (e.g., Wang, 2001). In the first part of this study, the prompted reminiscing task was used to examine cross-cultural differences in how American and Thai mothers scaffold their children's narratives of autobiographical memories, as well as cross-cultural differences in children's own narrative styles. By doing so, we were also able to examine associations between maternal and child communicative patterns when producing narratives about past events. Based on previous research suggesting that mother-child dyads from individualistic and collectivist cultures exhibit distinct reminiscing styles (Minami & McCabe, 1995; Wang et al., 2000; Winskel, 2010), American and Thai dyads were expected to adopt an elaborative and repetitive style respectively when jointly recalling past events. Specifically, in this task, American mothers' and children's discourse, compared with Thai mothers' and children's, was expected to be longer (measured by total number of utterances and words), more elaborate (containing more utterances that classify as closed-ended questions, open-ended question, labels, descriptions etc.), and more evaluative (containing statements such as feedback and affirmations). Furthermore, it was expected that maternal and child communicative patterns would be associated with each other. We predicted that there would be positive associations between maternal and child use of certain linguistic measures (e.g., use of labels) and negative associations between maternal and child use of other linguistic measures (e.g., use of expansions).

Additionally, we examined whether the cultural differences in the children's discourse patterns were dependent on and influenced by their mothers' linguistic scaffolding or whether the differences emerged from the children's own already-acquired narrative abilities. One way to answer this question is to elicit stories from children in the absence of adult guidance. To assess children's narrative skills, a child personal narrative production task (i.e., minimally scaffolded narratives with the interviewer/researcher) is generally used and has proved to be effective with young children (e.g., Minami, 1996; 2001; Minami & McCabe, 1995, 1991; Peterson & McCabe, 1983). During this task, children are typically asked by a researcher about a personally experienced event. While the child narrates, the researcher provides encouragement by giving nonspecific prompts such as “yeah?” or “and then what happened?” in order to not directly structure children's narratives. In the second part of our study, a child personal narrative task was used to obtain speech samples of children's individual conversation styles, in the absence of their mothers' scaffolding. By doing so, we were able to compare American and Thai children's narrative patterns when they were minimally scaffolded by an unfamiliar adult. If the two groups of children exhibit communicative differences when conversing with the experimenter about their personal experiences, then the results would provide evidence that the internalization of culture-specific communicative styles takes place as early as preschool. Congruent with previous research showing cross-cultural differences in children's discourse patterns during mother-scaffolded reminiscing (Minami & McCabe, 1995; Wang et al., 2000; Winskel, 2010), American children were expected to adopt a high-elaborative style, whereas Thai children were expected to adopt a low-elaborative style, when recounting their own personal narratives with the researcher in the absence of linguistic scaffolding. Specifically, similar to the predictions for the prompted reminiscing task, American children were expected to produce personal narratives that were longer (in both number of

Table 1a
Mothers' language use and corresponding examples.

Maternal language measure	Examples
Label	That is a cat
Description	We have a small dog
Open-ended question	What did we do at the park?
Closed-ended question	Did you have fun?
Reframe	It was a goat, not a sheep
Affirmation	Child says, “we ate pasta”; mother says, “yes we did!”
Repetition	Child says, “boat”; mother repeats, “boat”
Request for repetition	Can you repeat that?
Expansion	Child says, “eat”; mother says, “we were eating”
Extension	Child says, “all gone”; mother says, “it was all gone, and the cup was empty”
Recast	Child says, “zoo zebra”; mother says, “did we see a zebra at the zoo?”
Direct action request	Sit down
Indirect action request	Can you sit down?
Attention directive	Look at this
Positive feedback	That's right!
Negative feedback	No, that's wrong!

utterances and words produced), more elaborate (containing more labels, descriptions etc.), and more evaluative (containing statements such as affirmations and feedback), compared to Thai children.

The influence of child gender on narrative patterns was also examined in both tasks. Based on previous research, mothers of girls were expected to produce more elaborate and evaluative narratives compared to mothers of boys when jointly reminiscing with their child (Haden et al., 1997; Reese et al., 1993, 1996; Reese & Fivush, 1993; Zaman & Fivush, 2013). Similarly, girls were expected to produce more elaborate and evaluative narratives compared to boys (Haden et al., 1997), both when reminiscing with their mothers in Task 1 and when reminiscing with the experimenter in Task 2. Additionally, interactions between culture and child gender were also examined. We hypothesized that differences in the elaborateness of conversation styles between dyads from Western and Eastern societies might be moderated by underlying culture-specific gender expectations and socialization goals. Thus, we expected that American mothers of girls would have more elaborate and evaluative conversations than Thai mothers of girls, while American and Thai mothers of boys would show no significant difference.

In the present study, autobiographical narrative patterns of American and Thai mother-child dyads were examined by comparing linguistic measures that have been shown to influence children's language development. For example, positive evaluations and questions are typically used to encourage children's narrative contributions (Cleveland & Reese, 2005; Wang et al., 2000; Zaman & Fivush, 2013), while repetitions, recasts, and questions are used to improve children's grammar by directing children's attention to the ungrammatical utterances (Brown & Hanlon, 1970; Demetras, Post, & Snow, 1986; Nelson, Camarata, Welsh, Butkovsky, & Camarata, 1996). Additionally, in order to ensure that any cross-cultural differences that emerged were not attributed to differences in the participants' socioeconomic status or their language skills, data on maternal and paternal education, as well as mothers' and children's receptive and expressive vocabulary scores on the *Peabody Picture Vocabulary Test–Third Edition* (Dunn & Dunn, 1997) and the *Expressive Vocabulary Test* (Williams, 1997), were obtained. Findings from the present study would help inform our understanding of how maternal scaffolding strategies and children's narrative styles differ depending on culture and gender and have implications for interventions targeting narrative and literacy skills of preschoolers before they enter the education system.

Table 1b
Child language use and corresponding examples.

Child language measure	Examples
Label	That is a dog
Description	We saw a big spider last week
Open-ended question	What did we have for dinner?
Closed-ended question	Did we have pizza for lunch yesterday?
Reframe	The car was red, not blue
Affirmation	Mother says, “you were so scared”; child says, “yeah I was”
Repetition	Mother says, “daddy”; child repeats, “daddy”
Request for repetition	Huh?
Expansion	Mother says, “school”; child says, “I went to school”
Extension	Mother says, “beach”; child says, “we went to the beach and I went swimming!”
Recast	Mother says, “grandma pie”; child says, “did grandma bake a pie?”
Direct action request	Change the topic
Indirect action request	Can we change the topic?
Attention directive	Here!
Positive feedback	Right!
Negative feedback	No!

2. Method

2.1. Design

The present study was a 2 (culture: American, Thai) × 2 (child gender: boy, girl) between-subject study. Two sets of dependent variables were 1) maternal language use and 2) child language use, including the total number of *utterances*, total number of *words*, and *frequency* of each utterance type. See the Coding and data analysis section and Tables 1a and 1b for a comprehensive list of maternal and child linguistic measures.

2.2. Participants

Middle-class Thai monolingual and middle-class English monolingual American mother-child dyads were recruited to participate in the study. Inclusionary criteria for both Thai and American dyads were: (a) maternal and child exposure to a second language < 20% (if there was a second language) and (b) maternal and child proficiency in a second language was 5 or lower on a 0-to-10 scale. A total of 31 Thai and 25 American mother-child dyads were tested, however 10 of the Thai dyads and 4 of the American dyads did not meet the inclusionary criteria. The final sample included 21 dyads in each group (11 girls, 10 boys in the Thai group; 10 girls, 11 boys in the American group). Informed adult consent and child assent were obtained from all participants.

Children were 4-year-old preschoolers (age range: 3;11 to 5;0 years). As has been shown in previous studies (e.g., Nelson & Fivush, 2004), preschool is a critical period for narrative development. At the age of four, children are able to recount lengthy stories relative to their younger peers (Minami & McCabe, 1995) but are not yet able to produce well-sequenced and fully developed narratives (Peterson & McCabe, 1983). Thus, four-year-olds were selected for the purpose of this study in order to examine both maternal scaffolding strategies and children's own narrative skills.

To determine whether mother-child dyads meet the inclusionary criteria, mothers' and children's background information were obtained using questionnaires. Mothers filled out the *Language Experience and Proficiency Questionnaire* (LEAP-Q; Marian, Blumenfeld, & Kaushanskaya, 2007), which provided information regarding their speaking, understanding, and reading proficiencies in their first language (and second language if applicable). To obtain information on children's language background and experience, mothers filled out the child version of the LEAP-Q. Additional socioeconomic background information, specifically maternal and paternal education, was also obtained from the LEAP-Q. American and Thai parents did not differ in their years of education.

Standardized vocabulary tests were also administered to mother-child dyads in the language that they spoke. American mother-child dyads were given the *Peabody Picture Vocabulary Test–Third Edition* (PPVT-III; Dunn & Dunn, 1997), a standardized test of English receptive vocabulary and the *Expressive Vocabulary Test* (EVT; Williams, 1997), a standardized test of English expressive vocabulary that is co-normed with the PPVT-III. Thai mother-child dyads were given the translated Thai versions of the two tests. American and Thai dyads did not differ on their PPVT and EVT scores. See Tables 2a, 2b, and 2c for detailed information regarding participants' language background and socioeconomic status.

2.3. Procedure

During a preliminary visit, mothers were told that the aim of the study was to investigate how children talk with their families. Mothers filled out questionnaires regarding their own background, as well as their child's language experience. Following the language questionnaires, the researcher administered the PPVT-III (10–15 min) and the EVT (10–20 min) to assess mothers' and children's proficiencies in either English or Thai, depending on the dyads' native tongue. In a subsequent visit, each mother-child dyad

Table 2a
Language background of Thai and American children.

	Thai Mean (SE)	American Mean (SE)	*p* value
Total number (female)	21 (11)	21 (10)	–
Age (months)	53.19 (0.97)	52.43 (0.82)	.55
Age of Thai acquisition (years)	0.17 (0.15)	–	–
Age of English acquisition (years)	1.40 (0.23)	0 (0)	< .001
Age of other language acquisition (years)	–	1.23 (0.45)	–
Current exposure to Thai[a]	91.19 (1.54)	–	–
Current exposure to English[a]	8.81 (1.54)	99.50 (0.22)	< .001
Current exposure to other language[a]	–	0.50 (0.22)	–
Mother-reported Thai proficiency[b]	5.24 (0.30)	–	–
Mother-reported English proficiency[b]	2.44 (0.35)	6.17 (0.28)	< .001
Mother-reported other language proficiency[b]	–	0.92 (0.16)	–
Thai/English receptive vocabulary (PPVT)	65.14 (4.55)	72.67 (2.67)	.16
Thai/English expressive vocabulary (EVT)	45.95 (1.37)	49.62 (1.57)	.09

[a] Exposure was reported in terms of percentage per day.
[b] Proficiency was averaged across speaking, understanding, and reading domains, measured using the LEAP-Q, on a 0–10 scale.

Table 2b
Language background of Thai and American mothers.

	Thai Mean (SE)	American Mean (SE)	*p* value
Total number	21	21	–
Age (years)	37.66 (0.95)	37.16 (1.20)	.74
Education (years)	18.55 (0.67)	18.00 (0.77)	.59
Age of Thai acquisition (years)	1.60 (0.40)	–	–
Age of English acquisition (years)	8.91 (0.95)	0.17 (0.12)	< .001
Age of other language acquisition (years)	–	11.56 (1.26)	–
Current exposure to Thai[a]	91.43 (1.61)	–	–
Current exposure to English[a]	8.57 (1.61)	98.81 (0.43)	< .001
Current exposure to other language[a]	–	1.17 (0.44)	–
Self-reported Thai proficiency[b]	9.13 (0.19)	–	–
Self-reported English proficiency[b]	4.25 (0.36)	9.46 (0.13)	< .001
Self-reported other language proficiency[b]	–	3.70 (0.54)	–
Thai/English receptive vocabulary (PPVT)	195.57 (0.85)	193.14 (1.46)	.16
Thai/English expressive vocabulary (EVT)	148.24 (2.94)	155.33 (3.35)	.12

[a] Exposure was reported in terms of percentage per day.
[b] Proficiency was averaged across speaking, understanding, and reading domains, measured using the LEAP-Q, on a 0–10 scale.

Table 2c
Language background of Thai and American fathers.

	Thai Mean (SE)	American Mean (SE)	*p* value
Total number	21	21	–
Age (years)	40.03 (1.12)	39.01 (1.36)	.56
Education (years)	19.20 (1.33)	17.81 (0.68)	.40
Age of Thai acquisition (years)	1.78 (0.39)	–	–
Age of English acquisition (years)	9.33 (1.50)	0.47 (0.19)	< .001
Age of other language acquisition (years)	–	13.50 (0.50)	–
Current exposure to Thai[a]	86.90 (2.70)	–	–
Current exposure to English[a]	8.57 (1.61)	99.56 (0.22)	< .001
Current exposure to other language[a]	–	0.38 (0.18)	–
Self-reported Thai proficiency[b]	9.03 (0.24)	–	–
Self-reported English proficiency[b]	5.44 (0.39)	9.42 (0.25)	< .001
Self-reported other language proficiency[b]	–	3.83 (0.50)	–

[a] Exposure was reported in terms of percentage per day.
[b] Proficiency was averaged across speaking, understanding, and reading domains, measured using the LEAP-Q, on a 0–10 scale.

was video-recorded interacting at home in the language that they speak.

In the first task, word prompts were used to elicit mother-child reminiscing. Previous work has shown that prompts are effective for eliciting autobiographical memories (e.g., Marian & Neisser, 2000). Mothers were told that because it might be difficult to come up with many stories on request, they would be prompted with some words to facilitate the reminiscing process. The following two sets of 11 word prompts were used: (Set 1) airplane, birthday, blanket, blood, boat, butterfly, cat, holiday, laughing, lunch, and school, (Set 2) car, dinner, doctor, dog, friend, kitchen, party, spider, summer, yard, and zoo. Their Thai translations, respectively, are: (Set 1) เครื่องบิน, วันเกิด, ผ้าห่ม, เลือด, เรือ, ผีเสื้อ, แมว, วันหยุด, การหัวเราะ, อาหารเที่ยง, and โรงเรียน, (Set 2) รถ, อาหารเย็น, หมอ, หมา, เพื่อน, ครัว, งานเลี้ยง, แมงมุม, ฤดูร้อน, สนาม, and สวนสัตว์. Mothers received one of the two sets of prompts in the language that they speak. All mothers were instructed to use two phrases to elicit narratives from their child (“what else do you remember?” and “can you tell me more?”) before moving on to the next cue word.

After mother-child dyads completed Task 1, mothers left the room and the children continued on to Task 2. The researcher asked children about four personally experienced events, prompting questions related to injuries (getting hurt, getting a shot, and getting stung by a bee) and an evening routine with family. In accordance with previous research (e.g., Haden et al., 1997; Minami, 2001; Peterson & McCabe, 1992, 1994), the interviewer only provided neutral responses such as “yeah?”, “can you tell me more?”, “what else do you remember?” to encourage the children to continue narrating without providing any scaffolding or narrative structure. The same prompts were used for both the English and Thai sessions. See Appendix A for a picture of the set-up of both Tasks 1 and 2.

2.4. Coding and data analysis

Video recordings were transcribed using Codes for the Analysis of Human Language (MacWhinney, 2000). Native speakers of Thai and English were recruited and trained to transcribe and code all conversations in their respective languages. During training, repeated joint coding sessions were held. Any disagreements among the coders were discussed until an agreement was reached. Twenty percent of the transcripts were coded to establish interrater reliability using Cohen's kappa for all maternal and child language measures (Task 1: $\kappa = 0.94$ for Thai coders and $\kappa = 0.93$ for English coders; Task 2: $\kappa = 0.90$ for Thai coders and $\kappa = 0.93$ for English coders). To ensure that the coding scheme captured the same phenomena across languages, a Thai-English bilingual speaker who was unaware of the hypotheses coded 20% of the transcripts for verification.

Research assistants were trained using a coding manual, adapted from previous coding systems in the literature (e.g., Bates, Bretherton, & Snyder, 1988; Bloom, 1970; Camaioni, Longobardi, Venuti, & Bornstein, 1998; Tamis-LeMonda, Baumwell, & Cristofaro, 2012; Tamis-LeMonda & Bornstein, 1994; Tomasello & Farrar, 1986). Transcripts were coded using a frequency-based approach, focusing on counting the number of specific maternal and child linguistic behaviors (see Leyva et al., 2020 for a review). Each utterance was coded based on its content and was categorized into 16 types of linguistic categories. Both mother's and child's language use was coded for the same 16 linguistic behaviors outlined below (see Tables 1a and 1b for more information on the maternal and child language measures):

1. *Label*: Naming objects or people
2. *Description*: Describing objects or people using adjectives
3. *Open-ended question*: Asking a question for which there are multiple possible answers
4. *Closed-ended question*: Asking a question that has a dichotomous answer, such as a yes/no question
5. *Reframe*: Changing the expression of words or concepts stated in the preceding utterance, such as correcting an incorrect label
6. *Affirmation*: Provision of agreement or approval to the preceding utterance
7. *Repetition*: Repeating the exact content or gist of the preceding utterance
8. *Request for repetition*: Asking for information in the preceding utterance to be repeated or clarified
9. *Expansion*: Grammatical rendering of the preceding utterance
10. *Extension*: Similar to an expansion but adding semantic information or new content to the preceding utterance
11. *Recast*: Restating preceding utterance in a different form, such as turning a declarative into an interrogative
12. *Direct action request*: Giving commands in the imperative form
13. *Indirect action request*: Giving commands in the interrogative form
14. *Attention directive*: Giving commands that specifically direct attention
15. *Positive feedback*: Provision of confirmation or encouragement
16. *Negative feedback*: Provision of negation or criticism

Once all the transcripts were coded, mean percentages of each linguistic measure were obtained by dividing the total count by

Table 3a
Mean frequencies (standard errors) of mothers' language use.

Maternal language measure	Culture		*F* value	Child gender		*F* value	Interaction *F* value
	American $n = 21$	Thai $n = 21$		Boys $n = 21$	Girls $n = 21$		
Label	0.37 (0.09)	0.05 (0.02)	13.43***	0.16 (0.05)	0.21 (0.09)	1.78	2.13
Description	0.92 (0.11)	0.60 (0.07)	5.78*	0.89 (0.10)	0.63 (0.09)	3.65†	3.34†
Open-ended question	3.96 (0.30)	6.27 (0.45)	18.13***	4.77 (0.45)	5.46 (0.46)	1.19	0.86
Closed-ended question	5.77 (0.26)	5.91 (0.29)	0.13	5.77 (0.31)	5.91 (0.23)	0.12	2.95†
Reframe	0.07 (0.02)	0.04 (0.01)	3.68†	0.04 (0.02)	0.07 (0.02)	2.00	0.25
Affirmation	1.45 (0.14)	0.39 (0.09)	36.95***	0.90 (0.19)	0.93 (0.15)	0.22	0.53
Repetition	2.03 (0.21)	1.94 (0.21)	0.13	1.77 (0.18)	2.19 (0.22)	2.03	0.02
Request for repetition	0.14 (0.03)	0.26 (0.04)	4.96*	0.20 (0.04)	0.21 (0.04)	0.08	0.23
Expansion	0.16 (0.03)	0.15 (0.03)	0.06	0.17 (0.03)	0.14 (0.03)	0.20	0.002
Extension	0.18 (0.03)	0.04 (0.01)	24.02***	0.09 (0.02)	0.12 (0.03)	2.05	5.11*
Recast	0.30 (0.04)	0.07 (0.02)	28.60***	0.20 (0.04)	0.17 (0.04)	0.27	0.87
Direct action request	0.72 (0.16)	0.81 (0.09)	0.27	0.78 (0.12)	0.75 (0.14)	0.04	1.00
Indirect action request	0.29 (0.05)	0.63 (0.08)	14.26***	0.51 (0.09)	0.41 (0.07)	1.84	3.82
Attention directive	0.003 (0.002)	0.03 (0.01)	5.34*	0.03 (0.01)	0.01 (0.004)	3.73†	3.83†
Positive feedback	0.46 (0.08)	0.13 (0.03)	15.20***	0.32 (0.08)	0.26 (0.05)	0.21	1.58
Negative feedback	0.76 (0.10)	0.36 (0.04)	13.84***	0.49 (0.07)	0.63 (0.10)	2.09	1.58
Total utterances	330.42 (23.24)	266.43 (25.45)	3.41†	290.18 (26.57)	306.67 (24.03)	0.31	0.22
Total words	1847.33 (110.38)	1960.34 (152.88)	0.39	1970.04 (136.00)	1837.62 (130.16)	0.52	0.03

† $p < .10$.
* $p < .05$.
*** $p < .001$.

Table 3b
Mean frequencies (standard errors) of child language use.

Child language measure	Culture		*F* value	Child gender		*F* value	Interaction *F* value
	American $n = 21$	Thai $n = 21$		Boys $n = 21$	Girls $n = 21$		
Label	0.83 (0.29)	0.02 (0.01)	8.13**	0.29 (0.16)	0.56 (0.27)	1.10	0.97
Description	1.73 (0.19)	1.68 (0.19)	0.02	1.76 (0.19)	1.65 (0.19)	0.14	1.98
Open-ended question	0.79 (0.13)	0.94 (0.17)	0.69	0.99 (0.17)	0.74 (0.12)	1.73	8.31**
Closed-ended question	1.04 (0.12)	0.55 (0.14)	6.60*	0.83 (0.14)	0.76 (0.15)	0.07	0.003
Reframe	0.02 (0.01)	0 (0)	3.02	0.01 (0.01)	0.01 (0.01)	0.13	0.13
Affirmation	0.54 (0.09)	0.20 (0.05)	15.30***	0.23 (0.05)	0.51 (0.10)	11.11**	5.62*
Repetition	0.68 (0.12)	1.00 (0.18)	2.23	0.85 (0.17)	0.82 (0.14)	0.05	2.79
Request for repetition	0.10 (0.03)	0.07 (0.03)	0.78	0.12 (0.03)	0.05 (0.03)	3.44	1.67
Expansion	0.02 (0.01)	0.02 (0.01)	0.33	0.02 (0.01)	0.02 (0.01)	0	1.08
Extension	0.02 (0.01)	0.02 (0.01)	0.03	0.01 (0.01)	0.02 (0.01)	0.23	0.35
Recast	0.01 (0.01)	0 (0)	1.55	0.01 (0.01)	0 (0)	1.55	1.55
Direct action request	0.35 (0.08)	0.05 (0.02)	12.49**	0.24 (0.07)	0.16 (0.07)	0.50	0.05
Indirect action request	0.16 (0.05)	0.11 (0.03)	0.70	0.11 (0.03)	0.15 (0.05)	0.64	3.17†
Attention directive	0.03 (0.01)	0.05 (0.02)	0.30	0.04 (0.02)	0.03 (0.02)	0.21	0.19
Positive feedback	0.02 (0.02)	0.10 (0.04)	2.86	0.03 (0.02)	0.09 (0.04)	2.12	0.93
Negative feedback	0.62 (0.10)	0.34 (0.06)	5.44*	0.50 (0.08)	0.46 (0.09)	0.05	0.75
Total utterances	219.48 (18.65)	193.43 (22.61)	0.84	193.41 (21.64)	219.50 (19.77)	0.85	0.01
Total words	829.80 (65.15)	916.80 (137.58)	0.27	795.07 (101.17)	951.53 (111.87)	0.99	0.35

† $p < .10$.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

Table 3c
Pearson's *r* correlations between maternal and child language use.

Language measure	Culture		
	Both groups	American	Thai
Label	0.86***	0.84***	0.49*
Description	0.50***	0.61**	0.42†
Open-ended question	0.28†	0.12	0.34
Closed-ended question	0.10	0.01	0.24
Reframe	0.38*	0.37†	N/A
Affirmation	0.42**	0.07	0.46*
Repetition	0.07	0.23	−0.02
Request for repetition	−0.06	−0.29	0.16
Expansion	0.20	0.16	0.25
Extension	0.12	0.38†	−0.02
Recast	−0.05	−0.28	N/A
Direct action request	0.04	0.14	−0.24
Indirect action request	−0.10	0.04	−0.13
Attention directive	0.09	0.58**	0
Positive feedback	0.10	0.34	0.45*
Negative feedback	0.42**	0.37	0.04
Total utterances	0.87***	0.82***	0.92***
Total words	0.78***	0.59**	0.86***

† $p < .10$.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

Table 4
Mean frequencies (standard errors) of child language use.

Child language measure	Culture		*F* value	Child gender		*F* value	Interaction *F* value
	American $n = 21$	Thai $n = 21$		Boys $n = 21$	Girls $n = 21$		
Label	0 (0)	0 (0)	0	0 (0)	0 (0)	0	0
Description	0.86 (0.22)	0.75 (0.31)	0.08	1.00 (0.30)	0.59 (0.22)	1.20	0.43
Open-ended question	0.19 (0.08)	0.13 (0.07)	0.25	0.17 (0.08)	0.15 (0.08)	0.04	1.55
Closed-ended question	0.30 (0.09)	0.31 (0.11)	0.01	0.36 (0.10)	0.24 (0.10)	0.71	3.49†
Reframe	0 (0)	0 (0)	0	0 (0)	0 (0)	0	0
Affirmation	0.005 (0.004)	0 (0)	1.00	0.005 (0.004)	0 (0)	0.90	0.90
Repetition	0.08 (0.06)	0.08 (0.04)	0.001	0.08 (0.04)	0.09 (0.06)	0.02	5.19*
Request for repetition	0 (0)	0.12 (0.07)	2.77	0.07 (0.05)	0.05 (0.05)	0.04	0.04
Expansion	0 (0)	0 (0)	0	0 (0)	0 (0)	0	0
Extension	0 (0)	0 (0)	0	0 (0)	0 (0)	0	0
Recast	0 (0)	0 (0)	0	0 (0)	0 (0)	0	0
Direct action request	0.08 (0.07)	0.03 (0.03)	0.42	0.10 (0.07)	0 (0)	1.88	0.38
Indirect action request	0.02 (0.02)	0.01 (0.01)	0.20	0.01 (0.01)	0.02 (0.02)	0.26	1.87
Attention directive	0 (0)	0.02 (0.02)	1.01	0 (0)	0.02 (0.02)	1.11	1.11
Positive feedback	0 (0)	0 (0)	0	0 (0)	0 (0)	0	0
Negative feedback	0.01 (0.01)	0.20 (0.20)	0.86	0.19 (0.20)	0.01 (0.01)	0.77	1.04
Total utterances	24.07 (2.50)	18.17 (2.42)	2.80	21.64 (2.54)	20.59 (2.54)	0.05	1.39
Total words	189.01 (29.59)	101.78 (22.59)	5.37*	158.43 (31.05)	132.35 (24.39)	0.35	1.84

† $p < .10$.
* $p < .05$.

total length of conversation. Mean percentages were then submitted to a 2 (culture) × 2 (child gender) ANOVA to determine whether maternal and child communicative patterns differed as a function of culture or child gender. Significant interactions between culture and child gender were followed up with post-hoc comparisons (Bonferroni corrected for multiple comparisons). Power analyses were conducted for the *t*-tests examining simple effects. Using the lowest and highest values of effect sizes, power ranged from 0.85 to 1. Relations between maternal and child language measures were examined using correlations. In Task 1, 80 outliers from the total of 1512 data points were winsorized and replaced with 2 standard deviations from the mean. In Task 2, 24 outliers from the total of 756 data points were winsorized.

3. Results

Results of the maternal and child 2 (culture) × 2 (child gender) ANOVA analyses from Task 1 can be found in Tables 3a and 3b respectively. Maternal and child correlations are presented in Table 3c. Results of the child 2 (culture) × 2 (child gender) ANOVA analyses from Task 2 are presented in Table 4. A selection of excerpts from transcripts can be found in Appendix B.

3.1. Maternal narrative style during mother-child prompted reminiscing (Task 1)

American mothers used more affirmations, descriptions, extensions, labels, negative feedback, positive feedback, and recasts than Thai mothers ($ps < .05$), whereas Thai mothers used more attention directives, indirect action requests, open-ended questions, and requests for repetition than American mothers ($ps < .05$). Additionally, American mothers produced a marginally greater number of utterances compared to Thai mothers ($p = .07$). There was no significant main effect of child gender for any of the linguistic measures.

There was a significant interaction between culture and gender for maternal use of extensions, and marginally significant interactions for use of attention directives, closed-ended questions, and descriptions. Further comparisons revealed that among mothers of girls, American mothers ($M = 0.24$, $SD = 0.12$) extended their child's utterances more than Thai mothers ($M = 0.02$, $SD = 0.04$), $t(11) = 5.20$, $p < .001$, 95% CI [0.14, 0.30], $d = 2.64$, whereas among mothers of boys, American mothers ($M = 0.13$, $SD = 0.12$) and Thai mothers ($M = 0.05$, $SD = 0.07$) did not differ in their use of extensions, $t(16) = 1.81$, $p > .025$, 95% CI [−0.01, 0.17]. Additionally, American mothers of boys ($M = 1.14$, $SD = 0.49$) used descriptions more than Thai mothers of boys ($M = 0.61$, $SD = 0.27$), $t(16) = 3.11$, $p = .007$, 95% CI [0.16, 0.90], $d = 1.39$), whereas American ($M = 0.67$, $SD = 0.41$) and Thai mothers ($M = 0.60$, $SD = 0.41$) of girls did not differ in their use of descriptions, $t(19) = 0.40$, $p > .025$, 95% CI [−0.30, 0.44]. Follow-up analyses did not reveal significant simple effects for use of attention directives and closed-ended questions.

3.2. Child narrative style during mother-child prompted reminiscing (Task 1)

American children produced more affirmations, closed-ended questions, direct action requests, labels, and negative feedback than Thai children ($ps < .05$). There was a main effect of child gender on children's use of affirmations, where girls used more affirmations than boys ($p < .01$). Additionally, there were significant interactions between culture and gender for children's use of

affirmations and open-ended questions, and a marginally significant interaction for use of indirect action requests. Follow-up analyses revealed that American girls used affirmations ($M = 0.81$, $SD = 0.44$) more than Thai girls ($M = 0.24$, $SD = 0.22$), $t(13) = 3.69$, $p = .003$, 95% CI [0.26, 0.88], $d = 1.75$, whereas American ($M = 0.29$, $SD = 0.23$) and Thai boys ($M = 0.15$, $SD = 0.24$) did not differ in their use of affirmation, $t(19) = 1.37$, $p > .025$, 95% CI [−0.07, 0.35]. Further comparisons revealed no significant simple effects for children's use of open-ended questions or indirect action requests ($ps > .025$).

3.3. Associations between maternal and child narrative styles (Task 1)

Correlation analyses revealed significant positive correlations ($ps < .05$) between maternal and child number of utterances (American $r = 0.82$, Thai $r = 0.92$), number of words (American $r = 0.59$, Thai $r = 0.86$), and use of labels (American $r = 0.84$, Thai $r = 0.49$) for both the American and Thai groups. There were significant positive correlations between maternal and child use of affirmations ($r = 0.46$) and positive feedback ($r = 0.45$) only in the Thai group, and significant positive correlations between maternal and child use of attention directives ($r = 0.58$) and descriptions ($r = 0.61$) only in the American group.

3.4. Child narrative style during child personal narrative (Task 2)

Overall, children's narratives were similar across the two culture groups. No significant differences emerged between American and Thai children's language use except for their narrative length, use of closed-ended questions, and use of repetition. Specifically, during their personal narrative production, American children produced more words compared to Thai children, $F(1,38) = 5.37$, $p < .05$, partial $\eta^2 = 0.12$. There were no main effects of child gender for any of the linguistic measures. There was a significant interaction between culture and child gender for children's use of repetition and a marginally significant interaction for children's use of closed-ended questions. However, follow-up analyses revealed no significant simple effects for either measure ($ps > .025$).

4. Discussion

The present study aimed to examine cross-cultural differences in mother-child conversations and the relations between maternal and child communicative patterns. To answer these questions, language samples were collected from American and Thai mother-child dyads during dyadic reminiscing, as well as from the children individually during their personal narrative production. The current results provide evidence supporting cross-cultural differences in mother-child dyads' conversation styles and associations between the speech patterns of mothers and their children. At the same time, findings suggest that child gender moderates cultural differences in autobiographical conversations, but that the acquisition of gender-specific communicative norms may still require more time to complete.

During mother-child dyadic reminiscing (Task 1), comparisons of maternal scaffolding and elicitation strategies revealed that American mothers produced more descriptions, extensions, labels, and recasts compared to Thai mothers, whereas Thai mothers produced more open-ended questions and requests for repetition than American mothers. These differences are in line with previous research showing cross-cultural differences in the elaborateness of mothers from individualistic and collectivist cultures (Minami & McCabe, 1995; Mullen & Yi, 1995; Winskel, 2010). American mothers utilized a variety of scaffolding strategies that were characteristic of an elaborative style, whereas Thai mothers' strategies resembled a repetitive style (Fivush & Fromhoff, 1988; Reese & Fivush, 1993). For narrative length, American mothers spoke marginally more than Thai mothers, providing further evidence for cultural differences in preference for lengthy versus concise conversations (Minami & McCabe, 1995; Mullen & Yi, 1995; Winskel, 2010).

American mothers produced more evaluative statements than Thai mothers, including greater use of affirmations, positive feedback, and negative feedback. On the other hand, Thai mothers produced more commands, including attention directives and indirect action requests, compared to American mothers. These contrasting trends could also be explained by differences in values of collectivist versus individualistic cultures. Thai mothers' use of action and attention directives could be attributed to the emphasis on filial piety in Thai culture, where children are expected to respect their elders and follow instructions from adults (Tulananda & Roopnarine, 2001). At the same time, indirect imperatives may be preferred because they encourage harmony within interpersonal relationships more than direct commands do. Conversely, American mothers' use of evaluative statements such as negative feedback could be explained by the emphasis on self-competence and autonomy, as well as self-expression, in the American culture (Wang et al., 2000; Winskel, 2010). Positive evaluations may also be used as a strategy to validate children's contributions and encourage children to co-narrate past events (Cleveland & Reese, 2005; Larkina & Bauer, 2010; Zaman & Fivush, 2013). Thus, these results provide evidence to suggest that American mothers use elicitation strategies that foster children's narrative competence whereas Thai mothers' scaffolding techniques may serve a more didactic function to instill culture-specific social norms in the children.

Similar to their mothers, American children produced more affirmations, labels, and negative feedback, compared to Thai children. Unlike their mothers, American children produced more closed-ended questions and direct action requests. The trends observed in the children's narratives provide further support for cross-cultural differences and reiterate that individualistic cultures, including American culture, favor elaboration and self-expression compared to collectivist cultures such as Thai culture (Minami & McCabe, 1995; Mullen & Yi, 1995; Winskel, 2010). Specifically, use of evaluative statements such as affirmations and negative

feedback, as well as use of explicit and direct commands, are in line with previous work suggesting that direct line of communication is favored in individualistic cultures (Gudykunst & Kim, 1984). Notably, there were language measures on which the two groups of mothers and children did not differ, such as use of expansion and repetition. These commonalities suggest that some scaffolding strategies may be universally prevalent and valued in both American and Thai cultures, especially when they are central to the process of co-constructing narratives and recalling past experiences (Winskel, 2010).

When associations between maternal and child speech patterns were examined, results revealed positive correlations between mothers' and children's use of affirmations, attention directives, descriptions, labels, positive feedback, and narrative length, in both number of words and number of utterances. These results corroborate previous findings that maternal narrative styles influence children's narrative skills (Fivush et al., 2006; Reese et al., 1993; Reese & Newcombe, 2007). However, there were several maternal and child language measures that were not correlated. This discrepancy suggests that specific communicative styles may be internalized by children starting as early as preschool age, whereas other speech patterns may take longer for the children to learn and adapt for their own use (Chang, 2003; Reese et al., 1993). It is also important to note that for some language measures, there were positive correlations between mothers and children only in the Thai group, and others only in the American group. These varying patterns suggest that cultural expectations and norms could potentially moderate children's internalization of specific conversation styles. For example, there was a positive correlation between maternal and child use of positive feedback in Thai, but not American, dyads, and a positive correlation for use of attention directive in American, but not Thai dyads. This could possibly be due to cultural differences in what is appropriate for children to say to their mothers or adults in the society. For example, due to the social hierarchies and typical interpersonal dynamics of the two cultures, children telling their mothers what to do may be perceived as exhibiting competence in the American culture but disobedience in the Thai culture. One limitation of the current work is that mother-child conversation styles were examined during one time point and associations were analyzed using correlations. Therefore, causal inferences cannot be drawn with regard to the influences of maternal narrative styles on children's own narrative skills, or to the extent of mutual influences between mothers' and children's communicative patterns. Future work will be required in order to examine the direction of effects.

Gender differences in maternal and child conversation styles were also examined. Child gender was shown to be a moderating factor for cultural differences in conversation styles for some of the language measures. For example, American mothers of girls extended their child's utterances more than Thai mothers of girls, whereas American and Thai mothers of boys did not differ in their use of extensions. Among the children, while American girls used greater affirmations than their Thai peers, boys from the two cultures did not differ on this dimension. These findings suggest that the high elaborative style adopted by American mothers and children may actually be driven by the fact that American girls are socialized to be more elaborative and evaluative than American boys (e.g., Haden et al., 1997; Reese et al., 1996; Reese & Fivush, 1993). More broadly, these results suggest that cultural differences observed in the use of certain scaffolding strategies and narrative styles may be driven by gender-specific communicative norms of each society. However, the lack of gender differences on use of other linguistic measures suggests that perhaps the socialization process is not yet complete at the age of four, specifically that children may not have fully assimilated and learned to recount personal experiences in a gender-specific way.

When American and Thai children's individual narrative skills were compared during a child personal narrative production task (Task 2), results revealed differences in narrative length. In line with previous research demonstrating that mother-child dyads from individualistic cultures adopt a more elaborative style compared to dyads from collectivist cultures (Minami & McCabe, 1995; Mullen & Yi, 1995; Winskel, 2010), American children produced longer narratives than Thai children when talking about their personal experiences. This finding suggests that preschoolers start to internalize conversation styles that are normative of their culture, specifically the quantity of their conversation, and apply the learned conventions with conversation partners other than their mothers.

It is important to note, however, that children from the two cultures did not differ on any other language measures. A possible explanation for the lack of differences during this task is the fact that the children were very minimally scaffolded. The results here suggest that perhaps preschool-aged children still require substantial scaffolding from more competent conversation partners such as their mothers. Similarly, there were no gender differences in the individual narrative styles of children, suggesting that gender roles may not have been fully internalized by the age of four or that gender may not be an important moderator of cultural differences in autobiographical conversations. However, another caveat to consider is that because children received limited feedback from the researcher, many of them may have found the conversations unusual and unrealistic, which could have potentially influenced the children to deviate from their typical manner of conversing.

The contrast in findings from Tasks 1 and 2 sheds light on the important role that sensitive interlocutor scaffolding has on children's narrative development, particularly during the preschool years when these skills are starting to emerge. When American and Thai children were reminiscing with their mothers, the two groups of children exhibited distinct conversation styles that resembled the norms of their respective societies (i.e., high-elaborative style in Western cultures versus low-elaborative style in Eastern cultures; Minami & McCabe, 1995; Mullen & Yi, 1995; Winskel, 2010). Notably, these distinct patterns emerged when mothers were actively guiding their children through the storytelling process, thereby providing an exemplar of the way a competent member of their cultural community engages in this activity (Bruner, 1977, 1983; Vygotsky, 1978). On the other hand, when children shared personal narratives with an unfamiliar conversation partner who was not providing narrative structure, the cultural differences disappeared. In this latter context, children were required to take the lead in structuring the story and applying the necessary skills to coherently recount their personal experiences. The fact that American and Thai children did not exhibit conversation styles characteristic of their culture in the absence of external scaffolding suggests that both groups of children still require substantial guidance from adults and that the socialization of communicative skills may take more time beyond the preschool years to complete.

5. Conclusions

In sum, two primary findings emerged from the current work. First, narrative patterns of American and Thai mother-child dyads differed as a function of culture. When mothers and children jointly reminisced and recalled past experiences, American dyads exhibited a high-elaborative style and Thai dyads exhibited a low-elaborative style. Second, interlocutor scaffolding played an important role in shaping children's language development and socialization. When the two groups of children recounted autobiographical stories to an adult who did not provide structure or guidance, American and Thai children did not show cultural differences in their narrative skills. The present study demonstrated that narrative styles can be influenced by one's cultural background, as well as by the conversation partner, and that cultural differences in speech are present as early as the preschool years. We conclude that through repeated guided participation in social activities, children start to acquire the necessary skills to become competent members of their cultural community.

Declaration of competing interest

None.

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Appendix A. Experimental set-up

A.1. Task 1: prompted reminiscing

Child scaffolded reminiscing with the mother

A.2. Task 2: child personal narrative

Child minimally scaffolded reminiscing with the researcher

Appendix B. Sample transcript excerpts

B.1. Thai mother-child dyads

Example of maternal use of open-ended questions
Mother: Do you know what a boat is?
Child: Yes.
Mother: **What is it like?**
Child: They can have long tails.
Mother: **What is a boat like?**
Mother: I said, **what is a boat like?**
Child: What is a boat like?
Mother: **What does a boat have?**
Mother: **What does a boat have?**
Child: It has patterns. It has… it has… a boat has a paddle.
Mother: A paddle.
Mother: Have you ever been on a boat?
Child: No.
Mother: Have you ever seen it?
Child: Yes.
Mother: **What is it like?**
Mother: **What characteristics does it have?**
Child: Big.

Example of maternal use of indirect action requests
Mother: **Can you tell me about your friends?**
Child: [friend's name]
Mother: Yeah, **please tell me about your friends**.
Child: [friend's name]
Mother: **Can you please tell me about your friends?**
Child: Puppy.

Mother: What puppy? *laughs*
Child: *laughs*
Mother: **Can you tell me about your friends?**
Mother: What are your friends like?
Child: They're all the friends I have.

B.2. American mother-child dyads

Example of maternal use of affirmations
Child: I remember I got my shot.
Mother: **Yeah**.
Mother: What kind of reaction did you have to that?
Child: Um I don't know.
Mother: Do you remember if you cried or if you smiled or if it felt good or hurt?
Child: I liked I liked it.
Mother: You did?
Child: Mhm.
Mother: Huh.
Child: Because I didn't cry.
Mother: **You didn't cry, that's right**.
Child: But it hurt. I try not to cry.
Mother: **It did hurt**.
Mother: **Yeah**.
Child: And I and I did try that.
Mother: Anything else about doctors?
Child: They um they always keep us from colds.
Mother: **That's right** they do help us when we're sick don't they?

Example of maternal use of descriptions
Mother: What kind of dogs do you like?
Mother: Do you like **big** ones or **little** ones?
Child: Little ones.
Mother: Only **little** ones?
Child: *nods*
Mother: Not **big** ones?
Child: Well kind of.

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