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Culture and Gender Influence Self-Construal in Mother-Preschooler Reminiscing

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ABSTRACT
The present study examined how culture and gender influence the self-construal of mothers and their four-year-olds during dyadic reminiscing. Participants were 21 Thai (11 girls, 10 boys) and 21 American (10 girls, 11 boys) mother-child dyads. Thai dyads exhibited a more interdependent self-construal, whereas American dyads exhibited a more independent self-construal, as measured by personal and group pronoun usage and discussions of behavioral expectations, thoughts and feelings, and personal attributes. Girls and boys differed in the extent to which their self-construal was defined in relation to others in their social groups, for example girls mentioned teachers and classmates more than boys. Culture and gender also interacted in influencing self-construal, with Thai girls (but not boys) mentioning family members more than American counterparts. These findings suggest that the development of children's self-construal, particularly the extent to which children are socialized to view and express themselves independently of others or interdependently with others, differs depending on culture and gender. This work contributes to our understanding of the relationship between autobiographical memory and self during the formative years. Starting as early as preschool, our social environment influences the way we remember our experiences, which in turn shapes our self-construal.

Self-construal – how one views oneself – is defined by multiple factors, including one's culture and gender (e.g., Cross & Madson, 1997; Markus & Kitayama, 1991). In early childhood, children's nascent self-concept is largely influenced by adults who impart upon them knowledge of practices and values specific to their sociocultural milieu. An activity that is integral to shaping children's emerging identity is reminiscing (i.e., sharing personal memories with others). Through the process of narrating life stories, children learn to understand and represent their experiences (Fivush & Haden, 1997, 2005; Fivush, Berlin, Sales, Mennuti-Washburn, & Cassidy, 2003; Nelson, 2003). The present study aimed to examine how mothers and children view and express themselves, as well as how mothers support children's development of self-concept, within the context of autobiographical reminiscing. Specifically, cultural and gender differences in self-construal were examined in Thai and American mother-child dyads. Additionally, child gender was examined as a potential moderator for cross-cultural differences in self-construal. By focusing on Thai culture, this work contributes to our understanding of parental socialization practices and

children's development of self, particularly by uncovering similarities and differences between an understudied collectivist culture and other well-studied cultures.

Relationship between self-construal and autobiographical memory

Autobiographical remembering involves organizing, encoding, and retrieving personal memories (Conway, 1996; Neisser, 1994). These processes are critical to the development of one's self-construal (Conway & Pleydell-Pearce, 2000; Fivush, 1994). During joint reminiscing, we not only define our self-concept by recounting the events that happened but also by interpreting those events subjectively. We observe the similarities and differences between our explanations of the past and others' explanations. Over time, we develop subjective representations of our experiences that contribute to forming a unique self (Fivush & Haden, 2005). By engaging in the iterative process of recounting life stories with others, we continually articulate, transform, and reaffirm our sense of self (Wang & Brockmeier, 2002).

During the first six years of life, children go through significant development of their cognitive, social, and linguistic skills, which results in gradual changes in their self-understanding (Fivush & Haden, 1997; Nelson, 2003). Nelson (2003) posited that there are six levels of self-understanding that children gain as they progress developmentally – physical, social, cognitive, representational, narrative, and cultural. Of these, the narrative and cultural levels are particularly relevant to the relationship between autobiographical memory and self-construal. By preschool, children start gaining a self-understanding at the narrative level, meaning that they acquire the ability to recount autobiographical memory. Children establish a self by telling personal stories related to the past and contrasting their experience to those of others, which ultimately forms their unique life story. At the cultural level of self-understanding, children not only learn to talk about their lived experiences, but also place themselves within specific cultural settings. Personal memories are encoded and retrieved with pertinent contextual information including social rules and group membership. Thus, children's experiences are not only shaped by the milieu in which they live, but also by adult scaffolding during joint reminiscing that teaches children to frame their memories within their cultural practices. By reminiscing with others, an individual constructs their sense of self and integrates it with their social world (Fivush & Haden, 1997, 2003, 2005).

Cross-cultural differences in self-construal

Because an individual's self-construal develops within a larger sociocultural context, self-construal varies across cultures and is influenced by the beliefs and values specific to each culture (e.g., Markus & Kitayama, 1991). A well-established framework used to explain self-construal differences within a cultural context is individualism – collectivism (Markus & Kitayama, 1991; Triandis, 1995). European-American and Anglo-Australian cultures are typically described as individualistic, meaning that members of these cultures are more likely to define themselves as autonomous agents who are independent from others. Members of individualistic societies also emphasize self-expression. In contrast, East Asian and Southeast Asian cultures are considered collectivist. Group members are more likely to define themselves in relation to others and view themselves as interdependent.

Individuals in collectivist societies value empathy and conformity to social norms more than individuals from individualistic cultures. Although individuals have aspects of both independent and interdependent selves and there is variability in the degree to which individuals from the same culture subscribe to and identify with each of the two self-definitions, one of the two selves is typically more dominant and emerges depending on culture-specific socialization. Thus, the dichotomization of cultural orientations has its merits, given that cultures that fit under the same category usually share commonalities in beliefs and behavior (e.g., Trafimow, Triandis, & Goto, 1991; Wang, Leichtman, & White, 1998). However, there are also nuanced differences between groups of cultures that are not captured by such dichotomy (Tamis-LeMonda et al., 2008). Considering that existing knowledge about collectivist societies has primarily come from well-studied East Asian cultures like China, Japan, and Korea, the first step toward advancing our understanding of the variability among diverse cultural contexts is to use the existing individualism – collectivism framework to study self-construal in cultures that are underrepresented in the extant literature.

Self-construal differences in mother-child autobiographical memory

One's sense of self can be expressed in interpersonal communication, both through linguistic features and content of conversation (Marian, 2023). For example, the use of singular or plural pronouns in discourse can be indicative of one's self-definition (Marian & Kaushanskaya, 2004; Pillsbury, 1998). In contrast to second-person pronouns (e.g., "you" in English), which can sometimes be difficult to categorize as singular or plural, first-person singular pronouns such as "I," "me," and "my" can be used to express autonomy and independence, whereas first-person plural pronouns such as "we," "us," and "our" can be used to express collectiveness and interdependence (Kim & Choi, 1994; Pillsbury, 1998). Self-construal differences can also emerge in topics of conversation (Markus, Uchida, Omoregie, Townsend, & Kitayama, 2006). For instance, individuals with an independent self-construal tend to discuss their personal attributes, especially when explaining their successes. On the other hand, individuals with an interdependent self-construal are likely to mention other people and discuss their success by taking into account influences from others.

Congruent with their cultural values, European-American and Anglo-Australian individuals may be more likely to encode and retrieve information specific only to themselves. Conversely, individuals from Chinese, Korean, and Japanese cultures may be more likely to attend to and retain information about other people, which holds importance for maintaining group harmony (Wang, 2014). As a result of these culture-specific tendencies, individuals are likely to access different types of memories (i.e., self-focused vs. other-focused). In turn, these autobiographical memories further reinforce the construction of self-construal.

Because of the interconnectedness between autobiographical memory and self, adult-guided reminiscing can serve the purpose of cultural learning and socialization for children, whereby adults convey culture-specific values and beliefs through the questions they ask their children and the topics of conversation that they initiate (e.g., Mullen & Yi, 1995; Wang & Fivush, 2005; Wang, Leichtman, & Davies, 2000; Winskel, 2010). Cultural differences in this type of mother-child interaction mirror those found in adult conversations.

When recounting memories, European-American and Anglo-Australian parents are more inclined to ask children about their thoughts and feelings (e.g., "Why did that make you sad?") and discuss children's qualities and attributes (e.g., "You are kind"), all of which highlight the children's individuality. On the other hand, Asian parents, including Chinese, Japanese, and Korean parents, are more likely to focus on group activities (e.g., "Daddy and mommy took you to the zoo") and use past events as an opportunity to teach moral lessons (e.g., "It's not acceptable to hit your friends"). Consequently, similar patterns emerge in children's own narratives (e.g., Han, Leichtman, & Wang, 1998; Wang, 2004). European-American and Anglo-Australian preschoolers tend to discuss their own thoughts and feelings, whereas Asian preschoolers tend to focus more on interactions with others, as well as behavioral expectations and social norms. Thus, previous work provides evidence that children learn from more competent social partners to tell personal narratives in ways that are culturally appropriate (e.g., Nelson & Fivush, 2004; Wang & Ross, 2007).

Gender differences in self-construal and autobiographical memory

Gender differences in self-construal also exist as a result of societal values specific to men and women. Previous research on gender differences in self-construal has demonstrated that men tend to develop a relatively more independent self-construal, whereas women tend to develop a relatively more interdependent self-construal (e.g., Cross & Madson, 1997; Guimond, Chatard, Martinot, Crisp, & Redersdorff, 2006; Kashima et al., 2004). For instance, men and women differ in the reasons for engaging in past talk (e.g., Adcock & Ross, 1983; Merriam & Cross, 1982). Men are more likely to utilize reminiscing to evaluate and celebrate their life's achievements, whereas women see reminiscing as an activity to connect socially. Gender differences also manifest in the types of memories that are recalled (e.g., Merriam & Cross, 1982; Thorne, 1995). Men frequently recall memories of themselves that highlight their independence and perseverance, whereas women often recount memories that revolve around other people, particularly loved ones.

The gendered patterns in self-construal observed in adults can in part be attributed to the ways young children are socialized by their caregivers (Grysman & Hudson, 2013). In the context of parent-child reminiscing, parents emphasize different aspects of self-construal depending on their child's gender (Fivush, 1994; Fivush, Berlin, Sales, Mennuti-Washburn, & Cassidy, 2003). Parents are more inclined to focus on boys' autonomous roles and girls' interpersonal relationships when discussing past events. As a result of parents' gender-specific socialization of self-construal, children also exhibit gendered patterns in their personal narratives. Boys tend to refer to themselves, whereas girls tend to discuss relationships with others (Buckner & Fivush, 1998; Han, Leichtman, & Wang, 1998). Thus, these findings suggest that the development of gender-specific self-construal starts early in life.

Interplay between the influences of culture and gender on self-construal

Considering that self-concept differs as a function of cultural background and gender, it is likely that these two factors have a joint effect on the development of self-construal. Particularly, culture-specific patterns of self-construal may manifest differently depending on gender. Currently, evidence from the mother-child reminiscing literature is mixed. Some studies suggest that cultural differences in self-construal are moderated by gender (e.g.,

Han, Leichtman, & Wang, 1998), while others do not (e.g., Sahin-Acar & Leichtman, 2015; Wang, Leichtman, & Davies, 2000). However, findings are scarce overall as existing research has examined how gender differences in self-construal vary across cultures only in adults (e.g., Guimond et al., 2007) or has focused on a specific type of autobiographical memory (e.g., emotionally salient memories; Wang & Fivush, 2005) rather than on mother-child reminiscing more generally.

One commonality among the various studies that have focused on cultural and gender differences in self-construal is the argument that cultural and gender effects are not parallel and have unique underlying mechanisms (e.g., Kashima et al., 1995; Wang, Leichtman, & Davies, 2000). Although researchers have thought of cultural and gender differences in self-construal to be similarly accounted for by the independence – interdependence continuum, findings in the literature suggest a more nuanced explanation. Results from a large-scale cross-cultural comparison revealed that cultural differences in self-construal were captured by the extent to which individuals defined themselves as *independent* agents, whereas gender differences were captured by the extent to which individuals defined themselves as *interconnected* to others emotionally (Kashima et al., 1995). When considering findings from the extant literature, it is unclear how much influence each facet of identity has on shaping self-construal. For instance, boys from a collectivist culture may face two opposing forces: being socialized to value relationships and emotional connection with others because of their cultural background, while being socialized to value independence and autonomy because of their gender. Given that cultural and gender influences are often simultaneously at play, it is crucial to systematically examine the interaction of these two factors on self-construal in the socialization context of mother-child reminiscing.

The present study

Considering that most of the self-construal research has primarily focused on East Asian cultures, little is known about the socialization of self-construal in other Asian cultures. The present work focused on an understudied population: Thai children. There are cultural practices that differentiate Thai society from the well-studied Korean, Japanese, and Chinese cultures. Due to its predominantly Buddhist population, Thailand has an age-based hierarchy that is rooted in religious teachings (Eberhardt, 2014). Filial piety – the belief that children must respect and obey those older than them – is a core value in Thai culture (Cameron, Tapanya, & Gillen, 2006; Eberhardt, 2014). Such power dynamic between group members is reflected in social interaction and communicative norms. Deference and respect are shown through nonverbal behaviors via the customary Thai *wai* (palms pressed together along with a head bow). In conversations, honorifics are used to denote status and hierarchy. For example, kinship terms specify whether one's interlocutor is older and are used to show respect. Honorific particles – words that are added to the end of an utterance – are also used to show politeness to the person being addressed. These traditions and social rules highlight the characteristics of a collectivist and interdependent culture that Thais embody (Hofstede, 2001).

The majority of the previous research that has examined self-construal in Thais, specifically comparing the self-construal of Thais and European-Americans, has focused on adult samples and shown mixed findings with regards to whether Thais exhibit a more interdependent self-construal than European-Americans (Christopher, Norris, D'Souza, &

Tiernan, 2012; Neff, Pisitsungkagarn, & Hsieh, 2008). Comparably less is known about how Thai children are socialized by their parents during the critical period in which self-understanding emerges through personal narratives. To date, only one study (Winskel, 2010) has found cultural differences in the self-construal of Thai and Anglo-Australian children, specifically in how much children discuss thoughts and feelings. The current work examined cultural and gender differences in the self-construal of Thai and American mother-child dyads, particularly in four-year-old preschoolers. Children from this age group were selected as the focus of the current study based on previous evidence that autobiographical memory emerges during the preschool years (Nelson & Fivush, 2004). Although monolingual participants who had little to no exposure to a second language were recruited, American dyads had greater exposure to their native language compared to Thai dyads, whereas Thai dyads had greater exposure to their second language than American dyads. Using the same dataset as the one reported in Rochanavibhata and Marian (2020), in which autobiographical memory was elicited from Thai and American mother-child dyads, self-construal was measured by examining both the linguistic patterns of mothers' and children's personal narratives (e.g., Marian & Kaushanskaya, 2004) and the content of the memories that were recalled (e.g., Han, Leichtman, & Wang, 1998; Mullen & Yi, 1995; Wang, Leichtman, & Davies, 2000). The self-construal data presented here have not been previously reported elsewhere.

Congruent with cross-cultural differences between other individualistic and collectivist societies (e.g., Mullen & Yi, 1995; Wang, Leichtman, & Davies, 2000; Winskel, 2010), American mothers and children were expected to exhibit a relatively more independent self-construal, whereas Thai mothers and children were expected to exhibit a relatively more interdependent self-construal. Specifically, self-construal differences were expected to be captured by both linguistic and content measures. In terms of linguistic measures, American mother-child dyads were predicted to use a higher percentage of personal pronouns than Thai mother-child dyads, whereas Thai mother-child dyads were predicted to use a higher percentage of group pronouns than their American counterparts. Thai is a pronoun-dropping (pro-drop) language, which means that subject pronouns can be omitted under specific circumstances, including during dyadic communication where there is only one addresser, one addressee, and one referent (Palakornkul, 1975). Pronouns may also be dropped during conversations between two equals or when the social status of the conversational partner is ambiguous (Uckaradejdumrong, 2016). Empty pronouns in Thai are not recoverable or marked by verb inflections (Phimsawat, 2011). As a result, it is not possible to code the implied pronouns using verbs alone. Although much less common, subject pronouns can also be dropped in spoken English (e.g., "[I] don't think so"). Therefore, the percentages of personal and group pronoun use reported in this study were based on participants' *explicit* pronoun use. The pronoun measure was not meant to provide inferences or extrapolations about implicit pronoun use.

In terms of content measures, American mother-child dyads were expected to recount more self-focused memories, whereas Thai mother-child dyads were expected to recount more other-focused memories. Specifically, American dyads were expected to discuss more of the child's and mothers' thoughts and feelings, as well as talk more about individual child attributes, compared to Thai dyads. On the other hand, Thai dyads were expected to focus on behavioral expectations and others' thoughts and feelings, as well as discuss social groups, more than American dyads.

In line with previous findings in the literature (e.g., Buckner & Fivush, 1998; Fivush, 1994; Fivush, Berlin, Sales, Mennuti-Washburn, & Cassidy, 2003; Han, Leichtman, & Wang, 1998), gender differences were also expected to emerge in mothers' and children's autobiographical reminiscing. Mothers of girls were predicted to discuss others' thoughts and feelings and behavioral expectations, as well as to focus on social groups, more than mothers of boys. In contrast, mothers of boys were expected to focus on their child's thoughts and feelings and discuss their child's attributes more than mothers of girls. Girls and boys were predicted to exhibit similarly gendered patterns in their narratives. Additionally, given that boys are typically socialized to have more independent self-construal and girls are typically socialized to have more interdependent self-construal, boys were expected to use personal pronouns more than girls, whereas girls were expected to use group pronouns more than boys.

Given that research in the extant literature suggests that cultural and gender effects on self-construal differ in magnitude and their underlying mechanisms (Kashima et al., 1995; Wang, Leichtman, & Davies, 2000), it is predicted that some aspects of self-construal that differ cross-culturally would vary depending on child gender. However, because of the limited research that has examined gender as a potential moderator for cultural differences in mother-child self-construal, it is less clear *how* these two factors would interact to influence the socialization of self in the context of autobiographical memory. To date, there has not been a systematic investigation of the influence that culture- and gender-specific socialization goals have on Thai children's nascent self-concept. Therefore, the present study aimed to examine the interplay between the effects of culture and gender on self-construal and autobiographical memory of Thai and American mother-preschooler dyads. Findings from this research will inform our understanding of the important mechanisms that influence the encoding and retrieval of personal experiences, which in turn drive self-construal differences. Furthermore, this work will improve the accuracy of existing theoretical frameworks by capturing the diverse cultural contexts in which children are socialized.

Method

Participants

Participants were 21 middle-class Thai monolingual mother-child dyads living in the Bangkok metropolitan region of Thailand and 21 middle-class English monolingual American mother-child dyads living in the Chicagoland area of the United States. All Thai mother-child dyads were Asian, whereas among the American mother-child dyads, 19 were White and 2 were African American.[1] Children were 4-year-old (range: 3;11 to 5;0 years) preschool children. Participants in Thailand were recruited through the first author's contacts at preschools in Bangkok, as well as through snowball sampling. Participants in the United States were recruited through the Northwestern University databases including the Communication Research Registry and Child Studies Group Registry and through announcements at local preschools in the greater Chicago area. See Table 1 for participants' demographic information, including child gender, age, and parental education.

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[1]Exclusion of data from the two African American families did not change the cross-cultural differences that were observed.

Table 1. Demographic background of Thai and American children, mothers, and fathers.

	Thai Mean (SD)	American Mean (SD)	p value
Children			
Total number (female)	21 (11)	21 (10)	-
Age (months)	53.19 (4.42)	52.43 (3.75)	.55
Mothers			
Age (years)	37.66 (4.34)	37.16 (5.48)	.74
Education (years)	18.55 (3.02)	18.00 (3.51)	.59
Fathers			
Age (years)	40.03 (5.00)	39.01 (5.26)	.56
Education (years)	19.20 (5.96)	17.81 (2.71)	.40

Inclusionary criteria

At recruitment, mothers and children were screened using the following inclusionary criteria: (a) exposure to a second language less than 20% (if they had a second language and were exposed) and (b) second language proficiency score of 5 or lower (on the 0–10 scale of the *Language Experience and Proficiency Questionnaire*; LEAP-Q; Marian, Blumenfeld, & Kaushanskaya, 2007). Detailed information about mothers' and children's language profiles, including proficiency in the native language and second language (if applicable), were then obtained using the LEAP-Q and the child LEAP-Q. Inclusionary criteria regarding mothers' and children's exposure to their native language were included to ensure that Thai and American dyads did not speak additional languages that could potentially introduce exposure to cultures other than their own. Additionally, as a manipulation check, mothers answered a question in the LEAP-Q about cultural identification. On a 0 (no identification) – 10 (complete identification) scale, all Thai mothers reported identifying with the Thai culture (range: 7–10, mode: 10). All American mothers reported identifying with the American culture (range: 7–10, mode: 10).

Design

The present study followed a 2 (culture: Thai, American) × 2 (child gender: boy, girl) between-subject design. Dependent variables included first-person pronoun use (*personal* and *group*), discussions of thoughts and feelings (*child's, mothers', and others'*), behavioral expectations (references to social norms and moral standards), individual child attributes (references to personal qualities and characteristics), and social groups (*immediate family*, *extended family*, *teachers and classmates*, *other people*, and *nanny*). See the Coding and Data Analysis section, as well as Table 2, for the complete list of self-construal measures with their corresponding examples.

Measures

In addition to the subjective measures of receptive and expressive language abilities obtained via the LEAP-Q, mother-child dyads were also given standardized tests of receptive and expressive vocabulary to obtain objective standardized measures of mothers' and children's language abilities.

Table 2. Self-construal measures and corresponding examples.

Self-Construal Measure	Maternal Examples	Child Examples
Personal pronouns	I, me, my, mine	I, me, my, mine
Group pronouns	We, us, our	We, us, our
Child's thoughts and feelings	You were so sad, baby.	I was so happy!
Mother's thoughts and feelings	I was so excited!	Mommy, you were scared.
Others' thoughts and feelings	Your friends were so tired.	My friends had fun.
Behavioral expectations	It's not polite to stare.	I have to be nice to my siblings.
Child attributes	You are so patient.	I am shy.
Immediate family	What did daddy give you for your birthday?	Daddy bought me chocolate cake.
Extended family	Grandma took you to the zoo, remember?	Grandpa took me to the beach.
Teachers and classmates	What does Mr. John teach at school?	Ms. Anne is my teacher.
Other people	What did the doctor give you?	The nurse gave me a lollipop.
Nanny	What did your nanny make for dinner last night?	My nanny made pasta.

Peabody Picture Vocabulary Test – Third Edition (PPVT-III; Dunn & Dunn, 1997)

The PPVT-III was developed to assess receptive vocabulary knowledge in English. It was standardized nationally on a sample of 2,725 people. The median reliability was .95. Validity was established by calculating correlations between PPVT scores and measures of cognitive ability and oral language. Correlations with the *Wechsler Intelligence Scale for Children-Third Edition* (WISC-III; Wechsler, 1991), *Kaufman Adolescent and Adult Intelligence Test* (KAIT; Kaufman & Kaufman, 1993), *Kaufman Brief Intelligence Test* (K-BIT; Kaufman & Kaufman, 1990), and *Oral and Written Language Scales* (OWLS; Carrow-Woolfolk, 1995) ranged from .62 to 82.

Expressive Vocabulary Test (EVT; Williams, 1997)

The EVT was developed to assess expressive vocabulary knowledge in English. The median reliability is .95. Like the PPVT, the validity of the EVT was established by running correlations between EVT scores and other cognitive and language tests. Correlations with the WISC-III (Wechsler, 1991), KAIT (Kaufman & Kaufman, 1993), K-BIT (Kaufman & Kaufman, 1990), and OWLS (Carrow-Woolfolk, 1995) ranged from .47 to .86.

Translated Thai versions of the PPVT-III and EVT

Due to the lack of standardized vocabulary tests in Thai, the standardized and validated English versions of the PPVT and EVT were translated into Thai. Although psychometric properties are not available for the Thai versions, the two tests were translated by a fluent Thai-English bilingual (the first author), who is a native Thai speaker and grew up in Thailand. The correlations between the Thai version of the PPVT and EVT were $r = 0.41$, $p = 0.063$ for the mothers and $r = 0.42$, $p = 0.056$ for the children.

Procedure

Once enrolled in the study, mother-child dyads participated in two sessions. In the first session, mothers filled out questionnaires regarding their own language background and experience, as well as their child's. Mothers and children also completed the PPVT-III and the EVT. In the second session, each mother-child dyad was video-recorded while engaging in a prompted reminiscing task. Mothers were told that the purpose of the study is to examine how children talk with their families. Using the same procedure as

previous work (e.g., Marian & Kaushanskaya, 2004; Rochanavibhata & Marian, 2020), mother-child dyads were given word prompts to facilitate the recall of autobiographical memories. Mothers were randomly assigned one of the following two sets of prompts in the language that they speak: (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. The two sets were controlled for concreteness, familiarity and imageability (Coltheart, 1981), word frequency (Marian, Bartolotti, Chabal, Shook, & White, 2012), valence and arousal (Warriner, Kuperman, & Brysbaert, 2013), as well as age of acquisition (AoA; Kuperman, Stadthagen-Gonzalez, & Brysbaert, 2012). Only words with mean AoA of less than 4 years were chosen to ensure that children in the study would be able to recall memories based on the prompts.

The exact instructions provided to the mothers were as follows: "We are interested in seeing how you and your child talk about personal memories, specifically memories about events that happened in the past. To help you and your child reminisce together, we prepared these 11 topics (*researcher hands over word prompt cards*). Please go through these 11 words one at a time. You can spend as little or as much time as you and your child would like on each word. Feel free to ask any questions or say anything that you would like to help your child recall events related to each word. However, before you move on to the next topic, please ask your child these two questions: 'what else do you remember?' and 'can you tell me more?' (*researcher hands over card with the two questions*). Once you have asked the two questions and your child has told you that they do not remember anything else, feel free to move on to the next topic. We will let you know if you skipped any of the 11 prompts." Children were told: "You are going to be playing a word game with your mom. When you hear each word, answer as quickly as possible with whatever comes to mind, okay?"

Coding and data analysis

Language samples were transcribed using the Codes for the Human Analysis of Transcripts format and the Computerized Language ANalysis program (MacWhinney, 2000). Native speakers of Thai and English transcribed and coded the video data in the language they speak. Interrater reliability was established between the coders on 20% of the transcripts using Cohen's Kappa for all of the measures: $\kappa = 0.94$ for the Thai coders and $\kappa = 0.93$ for the English coders. All coders were female and blind to the hypotheses. Two types of self-construal measures were collected: 1) linguistic measures including first-person *personal pronouns* (e.g., I, me, my) and *group pronouns* (we, us, our) and 2) content measures including *discussions of thoughts and feelings*, *behavioral expectations*, *child attributes*, and *social groups*. These specific measures were chosen based on coding schemes used in previous studies that examined self-construal in autobiographical narratives (e.g., Marian & Kaushanskaya, 2004; Mullen & Yi, 1995; Wang, Leichtman, & Davies, 2000; Winskel, 2010).

Linguistic measures
Because Thai speakers may or may not explicitly use pronouns, the percentage of each pronoun type was computed (as opposed to total raw frequencies) for both the English and

Thai narratives to obtain a comparable and unbiased measure of explicit first-person pronoun use. Previous studies have compared pronoun use in this way across pro-drop and non-prodrop languages (e.g., Marian & Kaushanskaya, 2004; Uz, 2014; Yu et al., 2016). The percentages of first-person personal and group pronouns used by mothers and children (dividing the total count of each pronoun type by total number of pronouns and multiplying by 100) were submitted to a 2 (culture) × 2 (child gender) analysis of variance (ANOVA) to determine if there were significant differences in maternal and child use of pronouns as a function of culture or child gender.

Content measures

The average percentage of each content measure (calculated by dividing the total count by total number of words) was submitted to a 2 (culture) × 2 (child gender) ANOVA to determine if there were significant differences in each maternal and child content measure as a function of culture or child gender. More detailed descriptions of each content measure are outlined below:

(1) *Discussions of thoughts and feelings*: statements or questions about child's, mother's, or others' opinions and evaluations. Thoughts and feelings are coded once per utterance (i.e., for an idea or evaluative statement as a whole) even when there are multiple subjective description words (e.g., "it was *disgusting* and *scary*"). Behavioral manifestations of emotions (e.g., laughing or crying) were not counted; only verbal mentions of thoughts and feelings were coded. Child or maternal discussions of their own thoughts and feelings were used to index independent self-construal, while child or maternal discussions of other people's thoughts and feelings were used to index interdependent self-construal.

(2) *Behavioral expectations*: utterances about the appropriateness and acceptability of behaviors by social standards. Behavioral expectations are coded once per utterance. Examples of behavioral expectations include "you should not laugh when someone is crying" or "it is not nice to hit other people."

(3) *Child attributes*: statements about child's intrinsic quality (e.g., "you are so brave" or "that was so nice of you to help her").

(4) *Social groups*: mentions of various groups of people, including a. *immediate family* (parents, siblings), b. *extended family* (grandparents, cousins, other relatives), c. *people from school* (teachers, classmates), d. *nanny* (including live-in and babysitters), and e. *others* (anyone else who did not fit under any of the previous categories). Social groups were coded at the word level.

Post-hoc comparisons, with Bonferroni correction, were conducted to follow up significant interactions between culture and child gender. For each dependent variable, outliers were winsorized (replaced with values 2 standard deviations from the group mean). Across the American and Thai mother-child dyads, 45 outliers from the total of 1008 data points were winsorized (9 data points from American children, 10 data points from American mothers, 13 data points from Thai children, and 13 data points from Thai mothers were replaced). Power analyses were conducted for the *t*-tests examining simple effects. Using the lowest and highest values of effect sizes, power ranged from 0.67 to 1.

Table 3. Language Profiles of Thai and American Children and Mothers.

	Thai Mean (SD)	American Mean (SD)	p value
Children			
Current exposure to native language[a]	91.19 (7.04)	99.50 (1.01)	<.001
Current exposure to second language[a]	8.81 (7.04)	0.50 (1.01)	<.001
Mother-reported native language proficiency[b]	5.24 (1.35)	6.17 (1.17)	.03
Mother-reported second language proficiency[b]	2.44 (1.34)	0.92 (0.32)	<.001
Thai/English receptive vocabulary (PPVT)	65.14 (20.84)	72.67 (12.23)	.16
Thai/English expressive vocabulary (EVT)	45.95 (6.26)	49.62 (7.19)	.09
Mothers			
Current exposure to native language[a]	91.43 (7.39)	98.81 (1.99)	<.001
Current exposure to second language[a]	8.57 (7.39)	1.17 (2.00)	<.001
Self-reported native language proficiency[b]	9.13 (0.85)	9.46 (0.58)	.16
Self-reported second language proficiency[b]	4.25 (1.50)	3.70 (1.63)	.41
Thai/English receptive vocabulary (PPVT)	195.57 (3.88)	193.14 (6.71)	.16
Thai/English expressive vocabulary (EVT)	148.24 (13.48)	155.33 (15.37)	.12

[a]Exposure was reported in terms of percentage per day. [b]Proficiency was measured on a 0–10 scale using the LEAP-Q.

Table 4. Language profiles of boys and girls.

	Boys Mean (SD)	Girls Mean (SD)	p value
Mother-reported native language proficiency[a]	5.57 (1.18)	5.79 (1.45)	.59
Mother-reported second language proficiency[a]	2.52 (1.85)	1.89 (0.98)	.34
Thai/English receptive vocabulary (PPVT)	70.81 (19.00)	67.00 (15.65)	.48
Thai/English expressive vocabulary (EVT)	47.71 (6.83)	47.86 (7.16)	.95

[a]Proficiency was measured on a 0–10 scale using the LEAP-Q.

To control for potential effects of individual differences in language experience, particularly the ability to speak a second language that is associated with a culture different from their own, mean-centered relative second language proficiency scores were calculated for the mothers and children using data from the LEAP-Q. The score represents how much non-native language experience mothers and children have relative to other people in their cultural group. Using the mothers' and children's mean-centered relative second language proficiency score as a covariate, 2 (culture) × 2 (child gender) analyses of covariance (ANCOVAs) were performed to follow up significant maternal and child self-construal measures.

Results

Participants' language profiles

Information on mothers' and children's language profiles, including their language exposure, proficiency, and vocabulary scores, is provided in Table 3. Information on children's language profiles across gender is displayed in Table 4. Data from the questionnaires revealed that the two groups of mothers and children differed in the percentage of exposure to their native and second languages (ps < .001). American dyads had greater exposure to their native language compared to Thai dyads, whereas Thai dyads had greater exposure to their second language than American dyads. In terms of proficiency, American children's mother-reported native language proficiency was higher than Thai children's (p = .03), whereas Thai children's mother-reported second

Table 5. Mean percentages (standard deviations) of mothers' self-construal measures.

Maternal self-construal measure	Culture			Child gender			
	American N = 21	Thai N = 21	F value	Boys N = 21	Girls N = 21	F value	Interaction F value
Personal pronouns[a]	46.86 (12.44)	3.05 (7.31)	194.63***	23.86 (24.74)	26.06 (24.52)	1.86	0.06
Group pronouns[a]	53.14 (12.44)	87.15 (30.04)	22.23***	71.38 (29.15)	68.91 (28.49)	0.32	0.01
Child's thoughts and feelings[b]	2.50 (1.03)	1.92 (1.03)	3.48[†]	2.04 (1.04)	2.38 (1.08)	1.33	0.91
Mother's thoughts and feelings[b]	0.98 (0.61)	0.13 (0.16)	38.46***	0.54 (0.55)	0.57 (0.69)	0.26	1.22
Others' thoughts and feelings[b]	0.16 (0.15)	0.18 (0.18)	0.10	0.14 (0.14)	0.20 (0.19)	1.25	1.08
Behavioral expectations[b]	0.03 (0.06)	0.25 (0.23)	21.06***	0.19 (0.24)	0.09 (0.14)	6.19*	4.34*
Child attributes[b]	0.08 (0.08)	0.03 (0.05)	6.47*	0.06 (0.06)	0.06 (0.08)	0.14	0.79
Immediate family[b]	0.43 (0.34)	0.47 (0.34)	0.14	0.45 (0.32)	0.45 (0.35)	0.003	0.02
Extended family[b]	0.29 (0.28)	0.19 (0.23)	1.82	0.20 (0.22)	0.27 (0.30)	0.92	1.69
Teachers and classmates[b]	0.30 (0.23)	0.69 (0.50)	10.44**	0.39 (0.39)	0.59 (0.46)	2.28	0.47
Other people[b]	0.41 (0.44)	0.30 (0.29)	0.74	0.36 (0.46)	0.35 (0.27)	0.003	0.95
Nanny[b]	0 (0)	0 (0.05)	1.32	0 (0)	0.01 (0.05)	1.32	1.32

[a]Percentages were calculated by dividing the total count of each pronoun type by total number of pronouns produced by mothers. [b]Percentages were calculated by dividing the total count by total number of words produced by mothers. For example, an average of 1.00 would mean that a content measure variable occurred once every 100 words. [†]$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$.

Table 6. Mean percentages (standard deviations) of child self-construal measures.

Child self-construal measure	Culture			Child gender			
	American N = 21	Thai N = 21	F value	Boys N = 21	Girls N = 21	F value	Interaction F value
Personal pronouns[a]	81.78 (11.27)	45.31 (47.31)	16.51***	53.85 (43.30)	73.25 (31.47)	5.28*	9.78**
Group pronouns[a]	18.22 (11.27)	21.17 (37.01)	0.10	17.40 (27.50)	21.99 (27.10)	0.27	0.14
Child's thoughts and feelings[b]	4.24 (1.92)	3.43 (2.43)	1.60	3.52 (2.02)	4.14 (2.37)	0.99	1.97
Mother's thoughts and feelings[b]	0.10 (0.15)	0.07 (0.12)	1.12	0.06 (0.10)	0.12 (0.15)	2.69	5.27*
Others' thoughts and feelings[b]	0.25 (0.26)	0.35 (0.32)	1.04	0.26 (0.32)	0.34 (0.27)	0.57	1.46
Behavioral expectations[b]	0.02 (0.05)	0.06 (0.14)	2.00	0.03 (0.09)	0.06 (0.12)	0.68	0.81
Child attributes[b]	0.01 (0.03)	0.02 (0.06)	1.20	0.01 (0.03)	0.02 (0.06)	0.63	0.02
Immediate family[b]	0.57 (0.38)	0.96 (0.90)	3.74[†]	0.58 (0.46)	0.95 (0.87)	3.23[†]	5.51*
Extended family[b]	0.28 (0.23)	0.26 (0.40)	0.03	0.24 (0.28)	0.30 (0.36)	0.37	0.04
Teachers and classmates[b]	0.50 (0.37)	1.42 (1.14)	13.23***	0.64 (0.75)	1.27 (1.04)	5.83*	1.78
Other people[b]	0.36 (0.41)	0.26 (0.29)	0.77	0.33 (0.45)	0.28 (0.23)	0.15	0.58
Nanny[b]	0 (0)	0.01 (0.05)	1.68	0 (0)	0.01 (0.05)	1.68	1.68

[a]Percentages were calculated by dividing the total count of each pronoun type by total number of pronouns produced by children. [b]Percentages were calculated by dividing the total count by total number of words produced by children. For example, an average of 1.00 would mean that a content measure variable occurred once every 100 words. [†]$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$.

language proficiency was higher than their American peers' ($p < .001$). Thai and American mothers did not differ in their self-reported native ($p = .16$) and second language proficiencies ($p = .41$). Objective measures of mothers' and children's native language abilities were also obtained using the PPVT-III (Dunn & Dunn, 1997) and the EVT (Williams, 1997), or the translated Thai versions of the two tests. Thai and

Table 7. Summary of significant main and simple effects in maternal self-construal measures.

Maternal self-construal measure	Culture	Child gender	Culture × Child gender interaction
Personal pronouns	Thai < American	-	-
Group pronouns	Thai > American	-	-
Mother's thoughts and feelings	Thai < American	-	-
Behavioral expectations	Thai > American	Mothers of boys > Mothers of girls	Mothers of Thai boys > Mothers of American boys
Child attributes	Thai < American	-	-
Teachers and classmates	Thai > American	-	-

Table 8. Summary of significant main and simple effects in child self-construal measures.

Child self-construal measure	Culture	Child gender	Culture × Child gender interaction
Personal pronouns	Thai < American	Boys < Girls	Thai boys < American boys
Immediate family	-	-	Thai girls > American girls
Teachers and classmates	Thai > American	Boys < Girls	-

American mothers and children did not differ on their receptive (PPVT) and expressive vocabulary (EVT) scores ($ps > .05$).

Results of the maternal and child 2 (culture) × 2 (child gender) ANOVA analyses are presented in Tables 5 and 6, respectively. Summaries of significant main effects of culture and gender, as well as significant simple effects, are provided in Tables 7 and 8. Sample transcripts can be found in the Appendix.

Length of conversations

American and Thai mothers and children did not significantly differ in the total number of words produced (American mothers $M = 1847.33$, $SD = 505.82$, Thai mothers $M = 1960.34$, $SD = 700.59$, $t(40) = −0.60$, $p > .05$; American children $M = 829.80$, $SD = 298.57$, Thai children $M = 916.80$, $SD = 630.49$, $t(40) = −0.57$, $p > .05$). Word count also did not significantly differ across gender (boys $M = 795.07$, $SD = 463.63$, girls $M = 951.53$, $SD = 512.67$, $t(40) = −1.04$, $p > .05$; mothers of boys $M = 1970.04$, $SD = 623.24$, mothers of girls $M = 1837.62$, $SD = 596.45$, $t(40) = 0.70$, $p > .05$).

Maternal self-construal measures

Linguistic measures

As shown in Table 5, American mothers used a higher percentage of personal pronouns than Thai mothers ($p < .001$, $\eta^2 = .83$). Thai mothers used a higher percentage of group pronouns than American mothers ($p < .001$, $\eta^2 = .37$).

Content measures

As shown in Table 5, American mothers talked about their own thoughts and feelings (p < .001, η^2 = .50) and their children's attributes (p = .02, η^2 = .16) more than Thai mothers. Thai mothers mentioned their children's teachers and classmates (p = .003, η^2 = .22) more than American mothers. There were significant main effects of culture (p < .001, η^2 = .36) and child gender (p = .02, η^2 = .14) on mothers' discussions of behavioral expectations, as well as a significant interaction (p = .04, η^2 = .10). Further comparisons showed that Thai mothers of boys discussed behavioral expectations (M = 0.36, SD = 0.25) more than American mothers of boys (M = 0.04, SD = 0.07), $t(10)$ = −3.90, p = .003, d = 1.81, but American (M = 0.02, SD = 0.05) and Thai mothers (M = 0.14, SD = 0.17) of girls did not differ in their discussions of behavioral expectations, $t(12)$ = −2.29, p > .025.[2]

Child self-construal measures

Linguistic measures

As shown in Table 6, there were significant main effects of culture (p < .001, η^2 = .30) and child gender (p = .03, η^2 = .12) on children's use of personal pronouns. There was also a significant interaction between culture and child gender (p = .003, η^2 = .20). Follow-up analyses revealed that American boys used personal pronouns (M = 85.43, SD = 10.49) more than Thai boys (M = 19.10, SD = 38.52), $t(19)$ = 5.50, p < .001, d = 2.35, however American (M = 77.77, SD = 11.22) and Thai girls (M = 69.14, SD = 42.77) did not differ in their use of personal pronouns, $t(19)$ = 0.62, p > .025).

Content measures

As shown in Table 6, Thai children talked significantly more about teachers and classmates than did American children (p < .001, η^2 = .26). Girls talked significantly more about their teachers and classmates compared to boys (p = .02, η^2 = .13).

There were significant interactions between culture and child gender for children's mentions of their immediate family members (p = .02, η^2 = .13) and children's discussions of their mothers' thoughts and feelings (p = .03, η^2 = .12). Follow-up analyses revealed that Thai girls talked about their immediate family members (M = 1.35, SD = 0.98) more than American girls (M = 0.51, SD = 0.42), $t(14)$ = −2.60, p = .02, d = 1.11. Thai (M = 0.54, SD = 0.58) and American boys (M = 0.62, SD = 0.35) did not differ in their mentions of immediate family members, $t(15)$ = 0.39, p > .025. Follow-up analyses did not reveal significant simple effects for children's discussions of their mothers' thoughts and feelings (ps > .025).[3]

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[2]When maternal data were analyzed using mean frequencies of each measure (instead of mean percentages), with number of utterances as a covariate, the patterns of results did not change.

[3]When child data were analyzed using mean frequencies of each measure (instead of mean percentages), with number of utterances as a covariate, the results changed on two measures. There were significant main effects of culture and gender on child discussion of their thoughts and feelings. American children discussed their own thoughts and feelings more than Thai children. Girls discussed their thoughts and feelings more than boys. There was also a significant interaction between culture and gender on child discussion of others' thoughts and feelings. Post-hoc comparisons revealed that Thai boys discussed others' thoughts and feelings more than American boys, whereas the two groups of girls did not significantly differ. See Table S1 in the Supplemental Materials for the data analyses output.

Controlling for individual differences in language experience

Results from the ANCOVAs revealed that mothers' and children's relative second language proficiency did not adjust the influence of culture and gender on self-construal ($ps > .05$), except for one maternal measure of self-construal. American and Thai mothers significantly differed in their mentions of children's teachers and classmates, $F(1, 36) = 12.08$, $p = .001$), after controlling for the mothers' relative second language proficiency.

Discussion

How one views and represents oneself in the world is intimately tied to the ways that one remembers and evaluates personal experiences (Conway & Pleydell-Pearce, 2000; Fivush, 1994; Fivush & Haden, 1997, 2003, 2005; Nelson, 2003). The present study examined how self-construal differs as a function of cultural background and child gender in the context of autobiographical reminiscing. Results reveal that there are cross-cultural differences in the socialization and development of children's self-construal, specifically that Thai mothers and children exhibit a relatively more interdependent self-construal, whereas American mothers and children exhibit a relatively more independent self-construal. Additionally, our findings provide evidence that self-construal differs depending on child gender and that cultural differences in self-construal are moderated by child gender. Thus, during preschool, children learn to express themselves at the narrative and cultural levels – establishing a sense of self that is unique from others while simultaneously integrating themselves within the larger social context (Fivush & Haden, 2005; Nelson, 2003).

Cultural differences in mother-child pronoun use suggested that self-construal may be expressed linguistically. American mothers used a higher percentage of personal pronouns than their Thai counterparts, whereas Thai mothers used a higher percentage of group pronouns than their American counterparts. The two groups of children also differed in their use of personal pronouns. Like their mothers, American children used a higher percentage of personal pronouns in their narratives compared to Thai children. Congruent with previous research (e.g., Kim & Choi, 1994; Marian & Kaushanskaya, 2004; Pillsbury, 1998), these cultural differences in first-person personal and group pronoun use may be indicative of independent and interdependent self-construal in American and Thai societies, respectively. Increased use of personal pronouns by American dyads may thus be a linguistic marker of greater independence and autonomy, while increased use of group pronouns by Thai dyads may be a linguistic marker of greater interdependence and group membership. Similar to the use of honorifics and kinship terms, pronouns may be another way that Thai speakers define their self-concept in relation to others.

It is necessary to note that because pronouns are optional in Thai, some of the Thai mothers and children in our sample produced pronouns during their narratives, while others did not. However, we deliberately calculated the percentage of personal and group pronoun use by using the total number of pronouns produced as the denominator. Thus, the percentages illustrated the dyads' preference for each type of pronoun when they *explicitly* produced pronouns, meaning that the differences observed in this study were indicative of maternal scaffolding of explicit pronoun use and children's internalization of explicit pronoun use. To our knowledge, the present study is the first to measure self-construal using linguistic features of personal narratives (i.e., pronoun use) in Thai mother-

child dyads. Previous work examining self-construal in Thai adults has utilized self-report measures (Christopher, Norris, D'Souza, & Tiernan, 2012; Neff, Pisitsungkagarn, & Hsieh, 2008), while another study comparing personal narratives of Thai and Australian children only looked at discussion of thoughts and feelings (Winskel, 2010). Therefore, our findings suggest that linguistic features of personal narratives such as explicit pronoun use can be another useful proxy for measuring self-construal, even among populations that speak a pro-drop language.

In line with previous studies (e.g., Mullen & Yi, 1995; Wang, 2004; Wang, Leichtman, & Davies, 2000; Winskel, 2010), cultural differences were also observed in mothers' and children's memory content. American mothers' and children's narratives were relatively more self-focused (i.e., discussions of their own thoughts and feelings and focus on child attributes), whereas Thai mothers' and children's narratives were relatively more other-focused (i.e., mentions of children's social connections and discussions of behavioral expectations). These findings underscore self-construal differences across cultures. Individuals in collectivist cultures typically define their sense of self in relation to others (Markus & Kitayama, 1991; Triandis, 1995). Consequently, when Thai mothers and children jointly reminisced, they were more likely to recount episodes that involved other individuals with whom they had social ties. Such focus on group members also reflects the Thai values of filial piety, that is to show love, respect, and courtesy toward one's family (Cameron, Tapanya, & Gillen, 2006; Eberhardt, 2014). In contrast, members of individualistic cultures typically define their sense of self as distinct and independent from others (Markus & Kitayama, 1991; Triandis, 1995). Accordingly, American mothers and children more frequently discussed their personal thoughts and qualities. Together with the cross-cultural differences in pronoun use, the differences in content measures expand our understanding of how self-construal is socialized in Thai culture. By guiding children to remember life stories in ways that center around others, mothers are helping children express and represent themselves in ways that are congruent with their sociocultural norms. This study is the first to show that Thai mothers impart upon their children culturally appropriate ways of constructing their sense of self through the linguistic features of their personal narratives and the topics of conversation, providing insight into the link between self-concept and autobiographical reminiscing (Conway & Pleydell-Pearce, 2000; Fivush, 1994; Fivush & Haden, 1997, 2003, 2005; Nelson, 2003) in an understudied population.

Although the observed differences in self-construal align with culture-specific values and norms, there may be other influences at play. For instance, it is possible that in addition to culture, individual differences in family makeup of the participants contributed to the patterns of self-construal in this sample. Wang, Leichtman, and White (1998) showed that among Chinese adults, self-construal expressed through autobiographical narratives differed depending on whether they were an only-child. Adults who were an only-child recounted more self-focused memories and less other-focused memories than those with siblings. Future research should account for family structure when examining the influence of culture on self-construal. Another possibility is that individual differences in parenting beliefs influenced maternal scaffolding of self-construal and children's own self-concept. Researchers may want to consider obtaining data on beliefs regarding autobiographical reminiscing, self-concept, and parenting in order to tease apart this potential confound.

Gender differences also emerged in both linguistic and content measures of self-construal. Girls mentioned their teachers and classmates in their narratives more than

boys. This finding is consistent with previously observed gender-specific self-construal (e.g., Buckner & Fivush, 1998; Han, Leichtman, & Wang, 1998), where girls tend to recount memories involving social relationships more than boys. Furthermore, results revealed that cultural differences in certain aspects of self-construal are moderated by child gender. American boys were found to use personal pronouns more than Thai boys, whereas American and Thai girls did not differ in their personal pronoun use. Thai girls mentioned their immediate family members more than American girls, while the two groups of boys did not differ in how much they mentioned family members. These findings suggest that because American boys are typically faced with both the culture- (i.e., social preference for independent self-construal in American culture) and gender-specific (i.e., social preference for independent self-construal among boys) expectations, the two combined forces resulted in differences in pronoun use among the two groups of boys. Similarly, the compound effect of being Thai (i.e., social preference for interdependent self-construal in Thai culture) and a girl (i.e., social preference for interdependent self-construal among girls) led to differences in mentions of social ties among the two groups of girls. Together, these results provide evidence for the interplay between culture- and gender-specific social norms on the emergence of self-construal. Specifically, these two factors seem to differentially influence children's sense of self, depending on the channel through which the self is expressed (i.e., linguistically or thematically).

Future research will need to address some of the limitations of the present work while continuing the effort to understand cross-cultural differences in the development of self-construal. Specifically, the sample size is relatively small ($N = 21$ in each cultural group, with our statistical power ranging from .67 to 1.00). Therefore, the interaction effects that were observed should be interpreted with caution. Future work should attempt to recruit a larger sample of each cultural group to increase external validity. We also recognize the drawback of pigeonholing cultures into two dichotomous categories (Tamis-LeMonda et al., 2008). Cultures with the same category label may have distinct characteristics in addition to their shared similarities. Some of the cultural and gender differences specific to the American and Thai samples may not be generalizable to other individualistic and collectivist cultures. Additionally, the low correlations between the Thai versions of the PPVT and EVT suggest that the validity of the translated measures is difficult to ascertain without large-sample norming and standardization and highlight the need for future research to develop receptive and expressive vocabulary tests in languages other than English. Finally, it is worth noting that although preschoolers' self-construal is heavily influenced by their caregivers, especially in the context of mother-child reminiscing as shown in the present research, children's autobiographical memory and self may develop and ultimately be expressed differently in other contexts (Wang & Li, 2003; Wang & Ross, 2007). Because children also interact with people other than their parents, it is possible that the observed culture- and gender-specific patterns of self-construal may be attenuated depending on the social partner and that the trends reported here may not emerge in all social contexts. One potential avenue for future research is to not only examine the influence of culture and gender on children's self-construal during autobiographical reminiscing with their caregivers, but perhaps also in contexts where other aspects of identity may be highlighted (e.g., reminiscing with same-age peers).

In conclusion, our findings demonstrate that preschool children's emerging self-construal is influenced by their cultural background and gender, specifically by the culture-

and gender-specific norms related to recalling personal memories and narrating life stories. Furthermore, these two aspects of identity can have a compound effect in shaping children's self-concept. By participating in adult-guided autobiographical reminiscing, young children are socialized to encode and retrieve information that is relevant to their larger sociocultural context. As children internalize norms for how to view and present themselves, they start to independently apply their acquired knowledge in social settings, which further reinforces and solidifies their self-construal. Through repeated interactions with others, the interconnectedness between oneself and one's milieu ultimately results in both uniformity and variability in human self-expression and identity.

Acknowledgments

Disclosure statement

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Data availability statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

References

Adcock, N. V., & Ross, M. W. (1983). Early memories, early experiences and personality. *Social Behavior and Personality*, *11*(2), 95–100. doi:10.2224/sbp.1983.11.2.95

Buckner, J. P., & Fivush, R. (1998). Gender and self in children's autobiographical narratives. *Applied Cognitive Psychology*, *12*(4), 407–429. doi:10.1002/(SICI)1099-0720(199808)12:4<407:AID-ACP575>3.0.CO;2-7

Cameron, C. A., Tapanya, S., & Gillen, J. (2006). Swings, hammocks, and rocking chairs as secure bases during a Day in the Life in diverse cultures. *Child & Youth Care Forum*, *35*(3), 231–247. doi:10.1007/s10566-006-9011-1

Carrow-Woolfolk, E. (1995). *Oral and written language scales (OWLS)*. Circle Pines, MN: American Guidance Service.

Christopher, M. S., Norris, P., D'Souza, J. B., & Tiernan, K. A. (2012). A test of the multidimensionality of the self-construal scale in Thailand and the United States. *Journal of Cross-Cultural Psychology*, *43*(5), 758–773. doi:10.1177/0022022111406119

Coltheart, M. (1981). The MRC psycholinguistic database. *The Quarterly Journal of Experimental Psychology Section A*, *33*(4), 497–505. doi:10.1080/14640748108400805

Conway, M. A. (1996). Autobiographical knowledge and autobiographical memories. In D. C. Rubin (Ed.), *Remembering our past: Studies in autobiographical memory* (pp. 67–93). Cambridge University Press.

Conway, M. A., & Pleydell-Pearce, C. W. (2000). The construction of autobiographical memories in the self-memory system. *Psychological Review*, *107*(2), 261–288. doi:10.1037/0033-295X.107.2.261

Cross, S. E., & Madson, L. (1997). Models of the self: Self-construals and gender. *Psychological Bulletin*, *122*(1), 5–37. doi:10.1037/0033-2909.122.1.5

Dunn, L. M., & Dunn, L. M. (1997). *PPVT-III: Peabody picture vocabulary test*. Circle Pines, MN: American Guidance Service.

Eberhardt, N. (2014). Everyday morality: constructing a Buddhist ethos in rural Thailand. *Journal of Religious Ethics*, *42*(3), 393–414. doi:10.1111/jore.12063

Fivush, R. (1994). Constructing narrative, emotions, and self in parent-child conversations about the past. In U. Neisser & R. Fivush (Eds.), *The remembering self: Construction and accuracy in the self-narrative* (pp. 136–157). Cambridge, NY: Cambridge University Press.

Fivush, R., Berlin, L. J., Sales, J. M., Mennuti-Washburn, J., & Cassidy, J. (2003). Functions of parent-child reminiscing about emotionally negative events. *Memory*, *11*(2), 179–192. doi:10.1080/741938209

Fivush, R., & Haden, C. A. (1997). Narrating and representing experience: Preschoolers' developing autobiographical accounts. In P. W. van den Broek, P. J. Bauer, & T. Bourg (Eds.), *Developmental spans in event comprehension and representation: Bridging fictional and actual events* (pp. 169–198). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

Fivush, R., & Haden, C. A. (Eds.). (2003). *Autobiographical memory and the construction of a narrative self: Developmental and cultural perspectives*. Lawrence Erlbaum Associates Publishers. doi:10.4324/9781410607478

Fivush, R., & Haden, C. A. (2005). Parent-child reminiscing and the construction of a subjective self. In B. D. Homer & C. S. Tamis-LeMonda (Eds.), *The development of social cognition and communication* (pp. 315–335). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

Grysman, A., & Hudson, J. A. (2013). Gender differences in autobiographical memory: Developmental and methodological considerations. *Developmental Review*, *33*(3), 239–272. doi:10.1016/j.dr.2013.07.004

Guimond, S., Branscombe, N. R., Brunot, S., Buunk, A. P., Chatard, A. . . . Yzerbyt, V. (2007). Culture, gender, and the self: Variations and impact of social comparison processes. *Journal of Personality & Social Psychology*, *92*(6), 1118–1134. doi:10.1037/0022-3514.92.6.1118

Guimond, S., Chatard, A., Martinot, D., Crisp, R. J., & Redersdorff, S. (2006). Social comparison, self-stereotyping, and gender differences in self-construals. *Journal of Personality and Social Psychology*, *90*(2), 221–242. doi:10.1037/0022-3514.90.2.221

Han, J. J., Leichtman, M. D., & Wang, Q. (1998). Autobiographical memory in Korean, Chinese, and American children. *Developmental Psychology*, *34*(4), 701–713. doi:10.1037/0012-1649.34.4.701

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations* (2nd ed.). Thousand Oaks: Sage.

Kashima, Y., Kokubo, T., Kashima, E. S., Boxall, D., Yamaguchi, S., & Macrae, K. (2004). Culture and self: Are there within-culture differences in self between metropolitan areas and regional cities? *Personality and Social Psychology Bulletin*, *30*(7), 816–823. doi:10.1177/0146167203261997

Kashima, Y., Yamaguchi, S., Kim, U., Choi, S. C., Gelfand, M. J., & Yuki, M. (1995). Culture, gender, and self: A perspective from individualism-collectivism research. *Journal of Personality and Social Psychology*, *69*(5), 925–937. doi:10.1037/0022-3514.69.5.925

Kaufman, A. S., & Kaufman, N. L. (1990). *Kaufman brief intelligence test*. Circle Pines, MN: American Guidance Service.

Kaufman, A. S., & Kaufman, N. L. (1993). *Kaufman adolescent and adult intelligence test*. Circle Pines, MN: American Guidance Service.

Kim, U., & Choi, S. (1994). Individualism, collectivism, and child development: A Korean perspective. In P. M. Greenfield & R. R. Cocking (Eds.), *Cross-cultural roots of minority child development* (pp. 227–257). Hillsdale, NJ: Erlbaum.

Kuperman, V., Stadthagen-Gonzalez, H., & Brysbaert, M. (2012). Age-of-acquisition ratings for 30,000 English words. *Behavior Research Methods*, *44*(4), 978–990. doi:10.3758/s13428-012-0210-4

MacWhinney, B. (2000). *The CHILDES project* (*3rd* ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

Marian, V. (2023). *The power of language: how the codes we use to think, speak, and live transform our minds*. New York, NY: Dutton.

Marian, V., Bartolotti, J., Chabal, S., Shook, A., & White, S. A. (2012). Clearpond: cross-linguistic easy-access resource for phonological and orthographic neighborhood densities. *PLoS ONE*, *7*(8), e43230. doi:https://doi.org/10.1371/journal.pone.0043230

Marian, V., Blumenfeld, H. K., & Kaushanskaya, M. (2007). The Language Experience and Proficiency Questionnaire (LEAP-Q): Assessing language profiles in bilinguals and multilinguals. *Journal of Speech, Language, & Hearing Research*, *50*(4), 940–967. doi:https://doi.org/10.1044/1092-4388(2007/067)

Marian, V., & Kaushanskaya, M. (2004). Self-construal and emotion in bicultural bilinguals. *Journal of Memory and Language*, *51*(2), 190–201. doi:10.1016/j.jml.2004.04.003

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, *98*(2), 224–253. doi:10.1037/0033-295X.98.2.224

Markus, H. R., Uchida, Y., Omoregie, H., Townsend, S. S., & Kitayama, S. (2006). Going for the gold: Models of agency in Japanese and American contexts. *Psychological Science*, *17*(2), 103–112. doi:10.1111/j.1467-9280.2006.01672.x

Merriam, S. B., & Cross, L. H. (1982). Adulthood and reminiscence: A descriptive study. *Educational Gerontology*, *8*(3), 275–290. doi:10.1080/0360127820080307

Mullen, M. K., & Yi, S. (1995). The cultural context of talk about the past: Implications for the development of autobiographical memory. *Cognitive Development*, *10*(3), 407–419. doi:10.1016/0885-2014(95)90004-7

Neff, K. D., Pisitsungkagarn, K., & Hsieh, Y. P. (2008). Self-compassion and self-construal in the United States, Thailand, and Taiwan. *Journal of Cross-Cultural Psychology*, *39*(3), 267–285. doi:10.1177/0022022108314544

Neisser, U. (1994). Self narratives: True and false. In U. Neisser & R. Fivush (Eds.), *The remembering self: Construction and accuracy in the self-narrative* (pp. 1–8). Cambridge, NY: Cambridge University Press.

Nelson, K. (2003). Narrative and self, myth and memory: Emergence of the cultural self. In R. Fivush & C. A. Haden (Eds.), *Autobiographical memory and the construction of a narrative self: Developmental and cultural perspectives* (pp. 3–28). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

Nelson, K., & Fivush, R. (2004). The emergence of autobiographical memory: A social cultural developmental theory. *Psychological Review*, *111*(2), 486–511. doi:10.1037/0033-295X.111.2.486

Palakornkul, A. (1975). A socio-linguistic study of pronominal usage in spoken Bangkok Thai. *Linguistics*, *13*(165), 11–42. doi:10.1515/ling.1975.13.165.11

Phimsawat, O. (2011). *The syntax of pro-drop in Thai* [Unpublished doctoral dissertation]. The University of Newcastle.

Pillsbury, G. (1998). First-person singular and plural: Strategies for managing ego-and sociocentrism in four basketball teams. *Journal of Contemporary Ethnography*, *26*(4), 450–478. doi:10.1177/089124198026004003

Rochanavibhata, S., & Marian, V. (2020). Maternal scaffolding styles and children's developing narrative skills: A cross-cultural comparison of autobiographical conversations in the US and Thailand. *Learning, Culture & Social Interaction*, *26*, 100413. doi:10.1016/j.lcsi.2020.100413

Sahin-Acar, B., & Leichtman, M. D. (2015). Mother-child memory conversations and self-construal in Eastern Turkey, Western Turkey and the USA. *Memory*, *23*(1), 69–82. doi:10.1080/09658211.2014.935437

Tamis-LeMonda, C. S., Way, N., Hughes, D., Yoshikawa, H., Kalman, R. K., & Niwa, E. Y. (2008). Parents' goals for children: The dynamic coexistence of individualism and collectivism in cultures and individuals. *Social Development*, *17*(1), 183–209. doi:10.1111/j.1467-9507.2007.00419.x

Thorne, A. (1995). Developmental truths in memories of childhood and adolescence. *Journal of Personality*, *63*(2), 139–163. doi:10.1111/j.1467-6494.1995.tb00805.x

Trafimow, D., Triandis, H. C., & Goto, S. G. (1991). Some tests of the distinction between the private self and the collective self. *Journal of Personality and Social Psychology*, *60*(5), 649–655. doi:10.1037/0022-3514.60.5.649

Triandis, H. C. (1995). *New directions in social psychology*. Boulder, CO: Westview Press.

Uckaradejdumrong, P. (2016). A systemic functional approach to analyzing Thai pronouns. *SAGE Open*, *6*(3), 1–16. doi:10.1177/2158244016663801

Uz, I. (2014). Individualism and first person pronoun use in written texts across languages. *Journal of Cross-Cultural Psychology*, *45*(10), 1671–1678. doi:10.1177/0022022114550481

Wang, Q. (2004). The emergence of cultural self-constructs: Autobiographical memory and self-description in European American and Chinese children. *Developmental Psychology*, *40*(1), 3–15. doi:10.1037/0012-1649.40.1.3

Wang, Q. (2014). The cultured self and remembering. In P. J. Bauer & R. Fivush (Eds.), *The Wiley handbook on the development of children's memory* (pp. 605–625). New York, NY: Wiley Blackwell.

Wang, Q., & Brockmeier, J. (2002). Autobiographical remembering as cultural practice: Understanding the interplay between memory, self and culture. *Culture & Psychology*, *8*(1), 45–64. doi:10.1177/1354067X02008001618

Wang, Q., & Fivush, R. (2005). Mother-child conversations of emotionally salient events: Exploring the functions of emotional reminiscing in European-American and Chinese families. *Social Development*, *14*(3), 473–495. doi:10.1111/j.1467-9507.2005.00312.x

Wang, Q., Leichtman, M. D., & Davies, K. I. (2000). Sharing memories and telling stories: American and Chinese mothers and their 3-year-olds. *Memory*, *8*(3), 159–177. doi:10.1080/096582100387588

Wang, Q., Leichtman, M. D., & White, S. H. (1998). Childhood memory and self-description in young Chinese adults: The impact of growing up an only child. *Cognition*, *69*(1), 73–103. doi:10.1016/S0010-0277(98)00061-4

Wang, Q., & Li, J. (2003). Chinese children's self-concepts in the domains of learning and social relations. *Psychology in the Schools*, *40*(1), 85–101. doi:10.1002/pits.10071

Wang, Q., & Ross, M. (2007). Culture and memory. In S. Kitayama & D. Cohen (Eds.), *Handbook of cultural psychology* (pp. 645–667). New York, NY: The Guilford Press.

Warriner, A. B., Kuperman, V., & Brysbaert, M. (2013). Norms of valence, arousal, and dominance for 13,915 English lemmas. *Behavior Research Methods*, *45*(4), 1191–1207. doi:10.3758/s13428-012-0314-x

Wechsler, D. (1991). *Wechsler Intelligence Scale for Children – (Third Edition* ed.). San Antonio, TX: The Psychological Corporation.

Williams, K. T. (1997). *Expressive Vocabulary Test (EVT)*. Circle Pines, MN: American Guidance Service.

Winskel, H. (2010). A comparison of caretaker-child conversations about past personal experiences in Thailand and Australia. *Journal of Cross-Cultural Psychology*, *41*(3), 353–367. doi:10.1177/0022022109339209

Yu, F., Peng, T., Peng, K., Tang, S., Chen, C. S. . . . Chai, F. (2016). Cultural value shifting in pronoun use. *Journal of Cross-Cultural Psychology*, *47*(2), 310–316. doi:10.1177/0022022115619230

Appendix

Sample Transcripts

Thai mother-child dyads

Example of maternal use of group pronouns

Mother: แล้วมีอะไรอีกเวลาเราเดินไปข้างนอก
       What is there when **we** go outside?
Child: กำแพงหมู่บ้าน ต้นไม้
       Walls, trees
Mother: ต้นไม้
       Trees
Mother: แล้วมีอะไรอีกลูก เวลาเราออกไปข้างนอกเนี่ย [child's name]เจออะไรที่สนามบ้างลูก
       What else is there? When **we** go outside, what do you see in the yard?
Mother: หม่าม้าว่าบ้านเราสนามมีสไลเดอร์ใช่ไหม
       Mommy thinks **our** yard has a slide, right?
Mother: [child's name]ไปเล่นสไลเดอร์กับใครบ้างลูก
       Who do you play with on the slide?
Child: ไปเล่นสไลเดอร์กับ[friend's name] [sibling's name] [sibling's name]
       Play with [friend's name], [sibling's name], [sibling's name].
Mother: แล้วเราได้ไต่เชือกกันใช่ไหมที่สนาม
       And **we** climb the ropes in the yard too, right?

Example of maternal discussion of behavioral expectations

Mother: [child's name]บอกแม่ว่าไงนะ [child's name]บอกแม่ว่าจะช่วยคุณแม่ล้างจานใช่ไหมครับ
       What did you tell mommy? You said you were going to help mommy wash the dishes, right?
Child: ใช่
       Yes.
Mother: แล้วจานมันอยู่ในไหน
       And where are the dishes?
Child: จานอยู่ในนู้น
       The dishes are over there.
Mother:ในนู้นเขาเรียกว่าอะไร
       What is that "over there" called?
Child: ในครัว
       Kitchen.
Mother: ในครัว แล้ว[child's name]ต้องช่วยคุณแม่ล้างจานเพราะอะไรเพราะว่าคุณแม่ . . .
       Kitchen. **And you have to help mommy wash the dishes because? Because mommy. . .?**
Child: คุณแม่เหนื่อย
       Because mommy is tired.
Mother: [child's name]จะช่วยคุณแม่เพราะ[**child's name**]จะได้เป็นเด็ก . . .
       You will help mommy so that you'll be. . .?
Child: ดี
       Good
Mother: พูดดีๆสิลูก
       Speak properly

Child: เด็กดีครับ
          A good boy
Mother: เด็กดีครับ
          A good boy

Example of maternal and child discussion of classmates

Mother: [child's name]บอกว่าใครเป็นหัวหน้าห้องนะ เพื่อน[child's name]อ่ะ
          Who did you say is the class leader, **your friend?**
Child: **[friend's name].**
Mother: แล้ว[child's name]อยากเป็นหัวหน้าห้องไหม ต้องทำไงอ่ะ
          ถึงได้เป็นหัวหน้าห้องแบบ**[friend's name]**นะ
          And do you want to be the class leader? What do you have to do to be the class leader like
          [friend's name]?
Mother: บอกแม่ดิ ว่าเพื่อน[child's name]มีชื่ออะไรบ้าง
          Tell mommy, what are your **friends' names?**
Child: **[friend's name].**
Mother: แล้วชื่ออะไรอีก
          And what else?
Child: **[friend's name].**
Mother: **[friend's name].**
Mother: ใครนะที่แกล้ง[child's name]วันนั้นน่ะ ที่โดนนิ้ว[child's name]อ่ะ **[friend's name]**หรือเปล่า
          And who was it that bullied you the other day, the one who hit your finger? **Was it [friend's
          name]?**
Child: ไม่ใช่
          No.

Example of child discussion of family members

Mother: วันหยุดหนูอยากไปเที่ยวไหนอีก
          Where do you want to go during the holidays?
Child: ตรงน้ำพุ
          The fountain.
Mother: ที่ไหนเนี่ย แม่ไม่เห็นจำได้เลย
          Where? Mommy doesn't remember this.
Mother: แม่เคยไปไหม
          Has mommy ever been there?
Child: ไม่เคย
          No.
Mother: แล้วหนูเคยไปกับใครล่ะ
          Then who did you go with?
Child: เคยไปกับพ่อ
          Went with **daddy**.
Mother: จริงเหรอ แม่ทำไมจำไม่ได้ล่ะ
          Really? Then why doesn't mommy remember?
Child: แม่ยังไม่ได้ไปเพราะแม่อยู่ที่ทำงานอยู่
          Mommy couldn't go because **mommy** was at work.
Mother: แม่ทำอะไรอยู่
          What was **mommy** doing?
Child: ทำงาน ประชุม
          Working. In a meeting.
Mother: ออ หนูก็เลยไปเที่ยวกับคุณพ่อเหรอคะ ไปตอนไหน แม่ไม่เห็นรู้เรื่องเลย
          Oh, so you went with **daddy**? When was this? Mommy had no idea.
Child: แม่ไปทำงานอยู่ แล้วหนูไปที่ทำงาน แม่ยังไม่เลิกงานเลย

Mommy was working. I went to the office and **mommy** wasn't done with work.

Mother: เหรอคะ หนูจำอะไรได้อีกไหม จำอะไรได้อีกไหม ว่ามา

Really? Can you remember anything else? Can you remember anything else? Tell me.

Child: ตอนหนูไปเที่ยวกับแม่ หนูไปเจอผึ้งที่ตัวใหญ่

When I traveled with **mommy**, I saw a big bee.

American mother-child dyads

Example of maternal and child use of personal pronouns

Mother: What about party?
Child: **I** know our party.
Mother: No, what party did you just have?
Child: **My** party.
Mother: Your birthday party?
Child: Mhmm.
Mother: Tell **me** about your birthday party.
Child: **I** want it in Disneyworld.
Mother: No, your birthday party.
Child: Oh, you mean **my** three birthday parties?
Mother: No, your swimsuit party.
Child: Oh, **my** swimsuit party?

Example of maternal discussion of child attributes

Mother: What else do you remember about it, the gigantic spider web and the spider?
Child: Camera.
Mother: There was no camera there!
Mother: What else, what else do you remember about it?
Child: *laughs*
Mother: **You're silly.**
Child: *laughs*
Mother: **You're silly.**

Example of maternal discussion of mothers' thoughts and feelings

Mother: We were going to have a meal at our house but instead I think we went to grandma and
      grandpa's house.
Child: Hmm.
Mother: Right? **So that was a really nice holiday, right?**
Mother: Oh, and did the easter bunny leave anything in our backyard?
Child: Yes.
Mother: What did the easter bunny leave? The books?
Child: Gummies!
Mother: Oh yeah! Where were the gummies?
Child: They were in the easter eggs.
Mother: Yeah, there were a lot of them. **Yeah, that was really fun.**