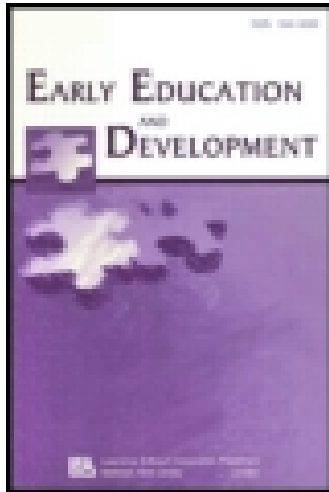


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Chilean Family Reminiscing About Emotions and Its Relation to Children's Self-Regulation Skills

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Research Findings: This study examined the relation between Chilean parents' narrative participatory styles (i.e., the way in which parents scaffold children's participation in conversations) and children's self-regulation skills. A total of 210 low-income Chilean parent-child dyads participated in the study. Dyads were videotaped talking about a past negative and a positive experience at the beginning of prekindergarten. Children's self-regulation skills (attention and impulse control) were assessed using teacher ratings at the beginning of prekindergarten and at the end of kindergarten. Several parents adopted an elicitor style (i.e., asked a significant number of questions) in conversations about past negative and positive experiences. Parents' elicitor style in conversations about negative but not positive experiences was predictive of gains in children's self-regulation skills (attention and impulse control) at the end of kindergarten. *Practice and Policy:* The findings from this study suggest that parent-child narratives about emotional experiences might be a privileged context to develop children's attention and impulse control—in particular conversations about past negative experiences. Intervention programs working with low-income Latin American parents may capitalize on these family practices to support children's self-regulation skills and, in doing so, might help children better prepare for school.

Children's ability to regulate their cognition, behavior, and emotion is a critical factor for school readiness and school success (Blair, 2002; Diamond, Barnett, Thomas, & Munro, 2007; McClelland, Acock, & Morrison, 2006). Being able to follow directions, control attention, and successfully communicate needs, wants, and thoughts verbally and being enthusiastic about learning and sensitive to other children's feelings are essential skills for positive adaptation and adjustment to school (Blair & Diamond, 2008; Coolahan, Fantuzzo, Mendez, & McDermott, 2000; Ladd, Birch, & Buhs, 1999). Children who cannot regulate their attention and behavior usually have problems complying with school demands such as completing assignments, paying attention in class, and inhibiting impulsive behaviors. These children become increasingly resistant to school and schoolwork and are more likely to drop out of school (Vitaro, Brendgen, Larose, & Tremblay, 2005). Thus, the promotion of self-regulation skills in young children is of substantial interest not only to parents and teachers but also to researchers and policymakers.

Self-regulation involves cognitive and behavioral processes central to the individual's adaptation (Blair, Granger, & Razza, 2005). One approach to studying self-regulation focuses on effortful control and relies on behavioral/temperament-based measures (Liew, 2012). Effortful control (Rothbart & Ahadi, 1994) is the ability to voluntarily control the activation or inhibition of behaviors via inhibitory control (e.g., impulse control) and attention (shifting and focusing) mechanisms (Eisenberg, Spinrad, & Eggum, 2010). Another approach to studying self-regulation focuses on executive function and relies on cognitive/neural-based measures. Executive function is the ability to engage in goal-directed action and thought via cognitive flexibility or attention shifting, working memory, and inhibitory control (Diamond et al., 2007). These two approaches to self-regulation overlap but are not the same (Liew, 2012). In both approaches, attention (shifting and focusing) and inhibitory control mechanisms are central self-regulatory processes. However, working memory is known to be a fundamental component of executive function but not of effortful control (Liew, 2012). In addition, temperamental effortful control develops early in life, whereas executive function develops later in life. Empirical evidence has supported the existence of these two related yet distinctive constructs, effortful control and executive function, which uniquely predict child outcomes (Blair & Razza, 2007).

Despite the growing amount of research on the development of self-regulation skills, the role of culture and family practices has been minimally explored (Raver, 2004; Trommsdorff, 2009; von Suchodoletz et al., 2013; Wanless et al., 2011). This is surprising given the strong associations between environmental influences (e.g., socioeconomic status, home environment, neighborhood characteristics) and children's cognitive ability and achievement (Noble, Norman, & Farrah, 2005). This study contributes to the literature by identifying an important cultural factor that may influence self-regulation skills in Latin American communities: the way in which parents involve preschool children in conversations. Most of the research on parent-child narratives and children's socioemotional and cognitive development has been conducted with English-speaking communities (Denham, Cook, & Zoller, 1992; Fivush & Sales, 2006; Laible, 2004; Laible & Panfile, 2009; Laible & Thompson, 2000; Sales & Fivush, 2005) and East Asian societies (Wang, 2001; Wang & Fivush, 2005; Wang, Leichtman, & Davies, 2000). In this study, we focused on low-income Chilean parent-child narratives and children's self-regulation skills. We were particularly interested in preschoolers from low-income households because they are less likely to have the self-regulation competencies to succeed in school (Bierman et al., 2008) and are at an increased risk for early school failure (Snyder & Dillow, 2013). Understanding the development of self-regulation skills in this population can help researchers and practitioners better foster school readiness and prevent early school failure (Hughes, 2011).

PARENTS' NARRATIVE PARTICIPATORY STYLES AND SELF-REGULATION SKILLS

Cultural beliefs and practices shape the way in which parents involve their children in conversations and the expectations they hold about children's contributions to these conversations (Fivush & Haden, 2003; Heath, 1982; McCabe, Bailey, & Melzi, 2008). In child-centered communities like the United States, adults modify their speech for children. Children hold an equal status to that of adults and are considered conversational partners (Schieffelin & Ochs, 1986). Hence, young children are expected and encouraged to participate in conversations with adults

from a very young age. In contrast, in situation-centered communities like those found in most Latin American countries, the roles of adults and children depend on the situation. Furthermore, adults and children have marked statuses such that adults rarely modify their speech for children (Melzi, Schick, & Kennedy, 2011; Schieffelin & Eisenberg, 1984; Zentella, 1997). In several situations, young children are expected to participate mostly through observation and careful listening (Rogoff, 2003). As they grow older, however, children begin to contribute to family conversations and are expected to gradually, with family support, take ownership of the narrative. The main goal of involving children in storytelling is to develop children's social and interpersonal abilities. Therefore, parents are typically more concerned about helping children connect with others through conversations than about the accuracy of the details of children's narratives (Melzi, 2000; Schieffelin & Eisenberg, 1984).

Numerous studies have revealed that parents who encourage children to participate in narratives have children with enhanced autobiographical memory, vocabulary, story comprehension, and narrative skills (Fivush, Reese, & Haden, 2006; Melzi et al., 2011). Participating in narratives also helps children develop an understanding of self, mind, and emotion (Leyva, Berrocal, & Nolivós, 2014; Doan & Wang, 2010; Dunn, Brown, & Beardsall, 1991; Laible, 2004). Can participating in narratives foster children's self-regulation skills?

According to Carlson (2003), two dimensions of adult-child interactions may influence children's self-regulation skills: scaffolding and mind-mindedness. Scaffolding involves parents' ability to provide children with successful experiences of problem-based learning by offering support and guidance in executing a task that is beyond the child's current level of ability. Mind-mindedness involves parents' ability to provide children with verbal tools to transition from external to internal forms of self-regulation. Parents' scaffolding and mind-mindedness in goal-directed activities (e.g., solving a puzzle) offer children opportunities to gradually master regulatory processes for themselves (Bernier, Carlson, & Whipple, 2010; Bibok, Carpendale, & Muller, 2009; Hughes & Ensor, 2009). Hence, it is possible that parents who scaffold their children's participation in narratives may be contributing to the development of their children's self-regulation skills.

Prior research has identified distinctive ways in which parents from Latin America (living in their home country or as immigrants in the United States) scaffold children's participation, depending on whether they reminisce together or share a book (Casper, 2009; Melzi, 2000; Melzi et al., 2011). In reminiscing contexts, parents are likely to adopt an *elicitor* style characterized by asking lots of questions and providing children with several opportunities to contribute to the story. The child assumes the role of the main narrator while the parent takes the role of the audience (Melzi et al., 2011). In contrast, in book-sharing contexts parents adopt a *storyteller* style. Parents who adopt this style function as the sole narrator, contributing most of the information primarily through statements and providing little opportunity for child input. Parents assume most of the responsibility in telling the story while children take the role of the audience (Melzi et al., 2011).

Only one study has examined the link between Latin American parents' scaffolding styles and children's self-regulation skills. In this study (Melzi, Schick, & Bostwick, 2012), children whose parents adopted a storyteller style in a book-sharing context tended to have better attention and impulse control. According to the authors, children who adopt an audience role (as a result of their parents' storyteller style) must resist distractions (i.e., focus on the task) and control their impulse to talk or to engage in another activity while listening to their parents'

narratives. Therefore, these children have more opportunities to practice their attention and impulse control (Melzi et al., 2012). Limitations of this study included the small sample size ($n = 40$) and the fact that associations with self-regulation only reached marginally significant levels ($p = .07$).

To date, no study has examined the relation between Latin American parents' scaffolding style in a reminiscing context (elicitor style) and children's self-regulation skills. Examining Latin American parents' scaffolding styles in reminiscing contexts is important for methodological and conceptual reasons. Methodologically speaking, reminiscing contexts are an ecologically valid and meaningful setting in which to investigate the links between culture and self-regulation because there is a strong oral tradition in these communities—telling stories about past personal experiences is part of the repertoire of family practices in Latin America (Schieffelin & Eisenberg, 1984). Several studies have shown that Latin American families from various socioeconomic statuses spontaneously and frequently engage in these kinds of conversations (for a review, see McCabe et al., 2008). Most of these conversations happen naturally while families participate in everyday activities, such as waiting at the doctor's office, cooking a meal, or walking to school with the child.

Conceptually speaking, there are reasons to believe that parents' elicitor style in reminiscing may be related to children's self-regulation skills. Following Carlson (2003), there are at least two ways in which parents' elicitor style may influence self-regulation. First, parents who adopt an elicitor style ask lots of questions and, in doing so, scaffold children's ability to assume the role of the main narrator, a task that is beyond preschoolers' current level of ability. These questions may help children control and direct their attention, thoughts, emotions and actions to the key goal: telling the story. Second, parents who adopt an elicitor style may also provide children with more opportunities to develop their mind-mindedness because children must identify, label, and explain their own and other people's mental states as they tell a story. Hence, parents who adopt an elicitor style when reminiscing may help children to gradually master regulatory processes for themselves.

THE CURRENT STUDY

This is the first study examining the links between Latin American parents' scaffolding styles in reminiscing and children's self-regulation skills. We focused on reminiscing about past negative (e.g., sadness, anger) and positive (e.g., happiness, joy) experiences because prior research shows that parents' scaffolding in conversations about past emotional experiences is particularly associated with children's socioemotional skills (Denham, Mitchell-Copeland, Strandberg, Auerbach, & Blair, 1997; Fivush & Nelson, 2006; Fivush & Wang, 2005; Laible, 2011; Laible & Panfile, 2009; Welsh-Ross, 1997). Because this is the first study investigating the relation between reminiscing and self-regulation in a low-income Chilean community, we first explored whether our sample adopted an elicitor style in reminiscing about emotionally negative and positive experiences with their children. It was possible that, like previous studies with other Latin American communities (Melzi et al., 2011), we would identify a narrative scaffolding style congruent with the elicitor style. However, it was also possible that other scaffolding styles unique to this sample would emerge.

If in fact this elicitor style was identified, we then examined whether it was predictive of gains in children's self-regulation, in particular attention and impulse control, from the beginning of prekindergarten to the end of kindergarten. We focused on attention and impulse control because these control mechanisms are central self-regulatory processes (Liew, 2012) and prior research has found links with these specific regulatory skills (Bibok et al., 2009; Melzi et al., 2012). It was possible that parents who adopted an elicitor style would scaffold children's problem solving and mind-mindedness, and, in doing so, they would promote the development of children's attention and impulse control. However, it was also possible that other scaffolding styles similar to that of the storyteller (parents assuming the role of the sole narrator rather than children) previously found in a book-sharing context (Melzi et al., 2012) would be associated with children's attention and impulse control.

Hence, in the current study we examined two research questions:

1. Do low-income Chilean parents adopt an elicitor style in conversations about past negative and positive experiences with their children?
2. Does parents' elicitor style at the beginning of prekindergarten predict gains in children's attention and impulse control at the end of kindergarten?

METHOD

Participants

Our study included 210 low-income parent-child dyads living in Santiago, Chile. Participants were recruited as part of a larger longitudinal study on the effects of a professional development program for teachers in Chile (Yoshikawa et al., 2015). Children were attending public prekindergarten at the time of the study. In Chile, prekindergarten and kindergarten classrooms are part of the primary school system. Children were recruited from 21 different public schools located throughout five municipalities in Santiago. On average, there were 18–20 children per classroom. Eleven schools had a single prekindergarten classroom, and the remaining had two or more prekindergarten classrooms. Ten children of the pool of participants from the larger longitudinal study on the effects of a teacher professional development program were randomly selected per school; our only criterion was that roughly half of them should be boys and half girls.

According to the Chilean Ministry of Education, most of the students of the participating schools came from low-income households. The Chilean Ministry of Education collects data on family income, parental education, and welfare benefits (when applicable) to assess the socioeconomic status of the households represented at each school (Ministerio de Educación, 2011). All of the adult participants, whether parents or grandparents, identified themselves as the primary caregiver. There were 201 mothers or grandmothers and nine fathers or grandfathers. Overall, 49.5% of the primary caregivers held a high school degree or higher. More specifically, the distribution of education among the caregivers was as follows: 10.5% did not complete middle school, 18% completed middle school, 22% did not complete high school, 35% completed high school, 12% had some college education or a general equivalency diploma, and 2.5% had a college degree. Note that in Chile, completing middle school affords

individuals the possibility of getting an entry-level or low-wage job. Children's mean age at the beginning of prekindergarten was 53.27 months ($SD = 3.66$; range = 46.82–62.62); there were 108 girls and 102 boys.

Measures and Procedure

Data were collected at the beginning of prekindergarten and at the end of kindergarten. In Chile, the school year starts in March and ends in December. Hence, beginning-of-prekindergarten assessments took place in March and involved two sessions. In the first session, children's self-regulation and language skills were assessed. In the second session, approximately 1 week later, parent-child narratives were videotaped and parents filled out a demographic questionnaire. End-of-kindergarten assessments took place in November/December and involved self-regulation skills. A team of trained Chilean research assistants administered all of the assessments at the child's school in a separate room to avoid disruption.

Parent-child narratives. Parents were videotaped while talking with their children about two past emotional experiences: a time when the child was happy (a positive experience) and a time when the child was unhappy (a negative experience). The prompts in Spanish were “*Hable sobre algo que pasó o que hicieron juntos y que su hijo/hija estuvo feliz*” and “*Hable sobre algo que pasó o que hicieron juntos y que su hijo/hija no estuvo feliz.*” In English, the translation would be: “Talk about a time when something happened or you did something with your child and your child was happy” and “Talk about a time when something happened or you did something with your child and your child was unhappy.” We phrased it as “unhappy” rather than “sad” or “angry” to allow parents the freedom to choose which negative emotion they wanted to discuss with their child. This was important because cultural norms and expectations most often dictate the topics selected (or avoided) for discussion with children (Miller, Fung, & Mintz, 1996). The order of valence of the experience discussed (negative vs. positive) was counterbalanced. Following Peterson and McCabe's (1983) procedure of eliciting personal narratives about emotional experiences, parents in our sample were instructed to encourage their children to draw a picture and use it as a conversation starter. Research assistants were not present during the conversation in order for the dyads to feel more comfortable while reminiscing. There was no time limit for their conversations. On average, dyads spent 3.83 min talking about a negative experience and 4.0 min talking about a positive experience. Examples of negative experiences included the death of a loved one or a disagreement with a friend. Examples of positive experiences included birthday parties or outings (Nolivos & Leyva, 2013). Most parents discussed recent (within the past 6 months) personal experiences. Conversations were transcribed verbatim using the Codes for the Analysis of Human Language rules and codes of the Child Language Data Exchange System (MacWhinney, 2000) by a team of trained Spanish-speaking research assistants.

Children's attention and impulse control. Teacher reports of children's attention and impulse control were collected at the beginning of prekindergarten and the end of kindergarten. Teachers completed a 25-item questionnaire using a 5-point scale developed for this particular Latin American population as part of a larger longitudinal study on the effects of a teacher

professional development program in Chile (Yoshikawa et al., 2015). The questionnaire was administered in Spanish. Three scales used in the United States guided the development of this new, linguistically and culturally adapted instrument: the Social Skills Rating System (Gresham & Elliott, 1990), the Early Development Instrument (Spanish version; Janus & Offord, 2007), and the Child Activity Scale (Bierman et al., 2008). We developed our own instrument rather than simply translating and administering scales developed and widely used in the United States for several reasons. First, after a thorough inspection and in consultation with experts in Chile we realized that a significant number of items in these scales were not meaningful in the Chilean context and did not align with the socialization practices and cultural values and beliefs of this particular community. Second, teachers were asked to fill out a questionnaire for every child in their class; the average class size in Chile is 20 in prekindergarten and 35 in kindergarten. To avoid making this a burdensome and unmanageable task for teachers, and to avoid compromising the validity of the data collected, we limited our questionnaire to 25 items to assess children's skills.

In addition to measuring children's attention and impulse control (seven items), the teacher questionnaire used in this study assessed children's emotional and behavior adjustment: externalizing behaviors (six items), internalizing behaviors (six items), and prosocial behaviors (six items). Although not the focus of this study, we briefly include information on these emotional and behavior adjustment measures as they were part of the psychometric analysis conducted to validate our instrument.

Four domains (attention and impulse control, externalizing, internalizing, and prosocial behaviors) were tested using confirmatory factor analysis of data from more than 1,600 Chilean children who participated in the larger longitudinal study. We conducted confirmatory factor analysis twice, first using data collected at the beginning of prekindergarten and then using data collected at the end of kindergarten. We found support for a four-factor model at both time points: beginning of prekindergarten, $\chi^2(269, n = 270) = 4,243.68, p < .001$, root mean square error of approximation (RMSEA) = .09, comparative fit index (CFI) = .82, Tucker–Lewis reliability index (TLI) = .81, standardized root-mean-square residual (SRMR) = .08; end of kindergarten, $\chi^2(269, n = 270) = 3,973.68, p < .001$, RMSEA = .09, CFI = .81, TLI = .80, SRMR = .08.

For the purposes of this study, we focused on the factor of attention and impulse control. This factor was internally consistent; Cronbach's alphas were .83 and .85 at the beginning of prekindergarten and the end of kindergarten, respectively. Appendix A contains a complete list of these attention and impulse control items. Scores used in this study were unit-weighted averages of children's attention and impulse control items. Teachers were given approximately 2 weeks to complete the ratings for each child participating in the study.

Covariates. Children's language was assessed at the beginning of prekindergarten using the Woodcock–Muñoz Picture Vocabulary subtest (Woodcock, Muñoz-Sandoval, Ruef, & Alvarado, 2005). This subtest showed high levels of internal reliability and validity (α in our sample = .76). Raw scores were used in analyses. Information on parent education was collected using a parent questionnaire administered at the beginning of prekindergarten. Preliminary analyses using dummy variables for each of the parent education levels (i.e., middle school incomplete, middle school complete, high school incomplete, high school complete, general equivalency diploma, and college degree) yielded similar results to those obtained using a

dichotomous variable (whether the parent had a high school diploma or not). For reasons of parsimony, parent education was entered as a dichotomous covariate in subsequent analyses.

Coding

Parents' narrative participatory style. Narratives were coded at the utterance level using Melzi et al.'s (2011) participation coding scheme. Parents' and children's utterances were coded as narrative elaboration request, narrative elaboration provision, narrative conversational, non-narrative related, and non-narrative unrelated. Narrative elaboration request included both open-ended ("How did she feel?") and closed-ended ("What color was your dress?") questions, yes/no questions ("Were you sad?"), fill-in-the-blank statements ("And mommy was not very_____"), and memory prompts ("Do you remember?") requesting a new piece of information. Narrative elaboration provision included statements and tag questions adding new pieces of information to the conversation. Narrative conversational were utterances that maintained the flow of the conversation but did not add new information, such as confirmations, clarifications, backchanneling (e.g., "aha," "uhm"), and full or partial repetition of the interlocutor's previous utterance. Utterances that were related tangentially to the story were coded as non-narrative related; these included inferences about the future ("Where would you like your next birthday party to be?"), fantasy talk ("I touched the sky"), and general knowledge ("Guacamole is made up of avocados"). Non-narrative unrelated utterances were considered off topic. Utterances that were unintelligible were uncodable.

Following Melzi et al. (2011), we further subcategorized children's narrative elaboration provisions as elicited provision (new pieces of information provided by the child as a response to the parent's questions or prompts) or unelicited provision (new piece of information spontaneously provided by the child without any prompting from the parent). To control for the length of the conversations, we used mean proportions (the frequency of each category as a proportion of the total number of coded utterances) for the final score in each category. Two raters independently coded 20% of the transcripts. Disagreements were resolved through discussion. Average interrater reliability was .87. The remaining transcripts (80%) were coded by one of the raters.

RESULTS

Preliminary Analyses

Missing data. Table 1 shows the descriptive statistics for our outcomes and covariates at the beginning of prekindergarten and the end of kindergarten. We had complete parent-child data on 206 dyads (98% completion rate) and complete child data on 198 children at the beginning of prekindergarten (96% completion rate) and 150 children at the end of kindergarten (72% completion rate). Preliminary analyses showed that there were no differences in demographic characteristics (including parent education) or child outcomes at the beginning of prekindergarten between those children who stayed in the study and those who dropped out before or at the end of kindergarten (analyses of variance and chi-square tests, all $ps > .10$). Multiple imputation

TABLE 1
Descriptive Statistics for Child Outcomes and Covariates at the Beginning of Pre-K
and the End of Kindergarten

<i>Variable</i>	<i>M</i>	<i>SD</i>	<i>Range</i>	<i>N</i>
Outcomes				
Child attention/impulse control at the end of kindergarten (teacher report)	3.98	0.83	1.63–4.83	150
Covariates				
Child attention/impulse control at the beginning of pre-K (teacher report)	3.71	0.97	1–5	198
Child language at the beginning of pre-K (W-M picture vocabulary)	17.65	4.09	8–30	204
Child age at the beginning of pre-K (in months)	53.49	3.66	46.82–62.62	210
Parent education (high school diploma)	0.49	0.50	0–1	210

Note. pre-K = prekindergarten; W-M = Woodcock–Muñoz Picture Vocabulary subtest.

techniques were used to account for missing data (Graham, 2009; Widaman, 2006) in multilevel modeling analyses to answer our second research question.

Teacher training effects. Half of the children attended schools where teachers received professional development training. Although the main focus of this training was on developing children's oral language and early literacy abilities, it was possible that the training also affected children's attention and impulse control. A series of multilevel modeling analyses were conducted to examine whether there were significant effects of teacher training on children's attention and impulse control. These analyses yielded no significant effects ($B = -.35$, $SE = .23$, $p > .10$). Thus, teacher training was not included in further analyses.

Identifying Parents' Narrative Participatory Styles

Our first research question was as follows: Do low-income Chilean parents adopt an elicitor style in conversations about past negative and positive experiences with their children? Table 2 shows the descriptive statistics for each of the categories of parents' and children's utterances. Following

TABLE 2
Descriptive Statistics for Parents' and Children's Narrative Participation Categories in Conversations About
Negative and Positive Experiences

<i>Participation Category</i>	<i>Parent</i>		<i>Child</i>	
	<i>Negative Experience</i>	<i>Positive Experience</i>	<i>Negative Experience</i>	<i>Positive Experience</i>
Narrative elaboration request	0.32 (0.16) 0–1	0.38 (0.15) 0–0.94	0.02 (0.04) 0–0.29	0.02 (0.05) 0–0.33
Narrative elaboration provision	0.10 (0.11) 0–0.67	0.10 (0.10) 0–0.72		
Elicited provision ^a			0.35 (0.22) 0–1	0.45 (0.22) 0–1
Unelicited provision ^a			0.08 (0.12) 0–1	0.10 (0.12) 0–1
Narrative conversational	0.41 (0.14) 0–0.77	0.40 (0.14) 0–1	0.38 (0.20) 0–1	0.31 (0.16) 0–0.78
Non-narrative related	0.17 (0.16) 0–0.59	0.12 (0.14) 0–0.68	0.17 (0.18) 0–1	0.12 (0.15) 0–0.71

Note. Data are *M* (*SD*) and range. $N = 208$ for negative experience and $N = 206$ for positive experience.

^aFollowing Melzi et al. (2011), narrative elaboration provision was subcategorized as elicited and unelicited only for children's utterances.

previous research (Caspé, 2009; Hammett, Van Kleeck, & Huberty, 2003; Phillips & Lonigan, 2009), we used a combination of clustering methods to identify parents' scaffolding styles. Four mutually exclusive categories were entered into the cluster analyses: parents' narrative elaboration requests and provisions, narrative conversational, and non-narrative related utterances.

First, we performed hierarchical clustering analyses (Ward's linkage method with squared Euclidean distances; see MacArthur, Konold, Glutting, & Alamprese, 2012) and identified the most valid, meaningful, and optimal number of clusters by visually inspecting the dendrograms and examining three fit statistics: the cubic clustering criterion, the pseudo- F (Calinski & Harabasz, 1974), and the pseudo- t^2 (Duda & Hart, 1973). Second, we used partitioning clustering analyses (K-means iterative) to improve the accuracy of the assignment of parents to clusters. The K-means algorithm was run 1,000 times for each cluster solution, and Calinski and Harabasz's (1974) stopping rules were used to compare cluster solutions. In addition, to check the stability, robustness, and validity of these cluster solutions, we used the Rand index (a measure of agreement between clustering results and the degree of overlap for multiple clustering) and predictive discriminant analysis (see Hammett et al., 2003, for a similar procedure). Detailed results of clustering analyses are available on request.

Taken together, this combination of cluster analysis methods suggested that the optimal solution was three clusters in the negative experience and two clusters in the positive experience. Thus, low-income Chilean parents in our sample displayed three different scaffolding styles in the negative experience and two different narrative scaffolding styles in the positive experience.

It is notable that an elicitor style was found in both negative and positive experiences. Parents who adopted this style were more likely to ask questions (53% narrative elaboration request for negative experience and 52% for positive experience) and follow the flow of the conversation (33% narrative conversational for negative experience and 35% for positive experience). These parents were less likely to provide information themselves (7% narrative elaboration provision for negative experience and 8% for positive experience); or to talk about the future, talk about general knowledge, or engage in fantasy talk related to past experience (7% non-narrative related for negative experience and 5% for positive experience).

A total of 56 parents (27%) adopted the elicitor style when discussing the negative experience and 91 (44%) did so when discussing the positive experience. Appendix B shows excerpts of sample conversations about negative and positive experiences illustrating this elicitor style. Parents who were elicitors in conversations about negative experiences were likely to be elicitors in conversations about positive experiences, Pearson's χ^2 ($n = 205$) = 22.26, $p < .001$ (odds ratio = 4.73, $p < .001$). Overall, 33 parents were elicitors in conversations about both negative and positive experiences. This means that almost 60% (33/56) of elicitor parents in the conversation about a negative experience were also elicitors in the conversation about a positive experience.

Children whose parents were elicitors participated more in conversations about past emotional experiences than children whose parents adopted other scaffolding styles. In particular, children whose parents were elicitors were significantly more likely to provide information that was requested by parents and focused more on the past emotional experience itself (displayed less future, fantasy, and/or general knowledge talk related to past experience). This was true for both the negative experience and the positive experience: negative experience, $F(2, 205) = 26.88$, $p < .001$, for elicited provision, and $F(2, 205) = 55.40$, $p < .001$, for non-narrative related; positive experience, $F(1, 204) = 84.82$, $p < .001$, for elicited provision, and $F(1, 204) = 66.33$, $p < .001$, for non-narrative related. No other significant difference in amount or type of child

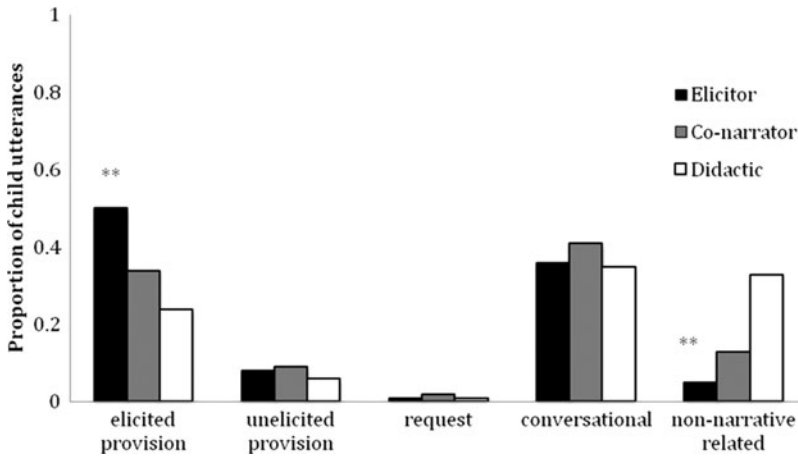


FIGURE 1 Difference in proportion of child utterances among children whose parents adopted an elicitor, co-narrator, or didactic style in conversations about past negative experiences. $**p < .001$.

participation was found between children whose parents were elicitors and those whose parents were non-elicitors (analyses of variance, all $ps > .10$). Figures 1 and 2 illustrate the differences in the amount and type of child participation in conversations about emotionally negative and positive experiences between children whose parents adopted an elicitor style and those whose parents adopted other scaffolding styles.

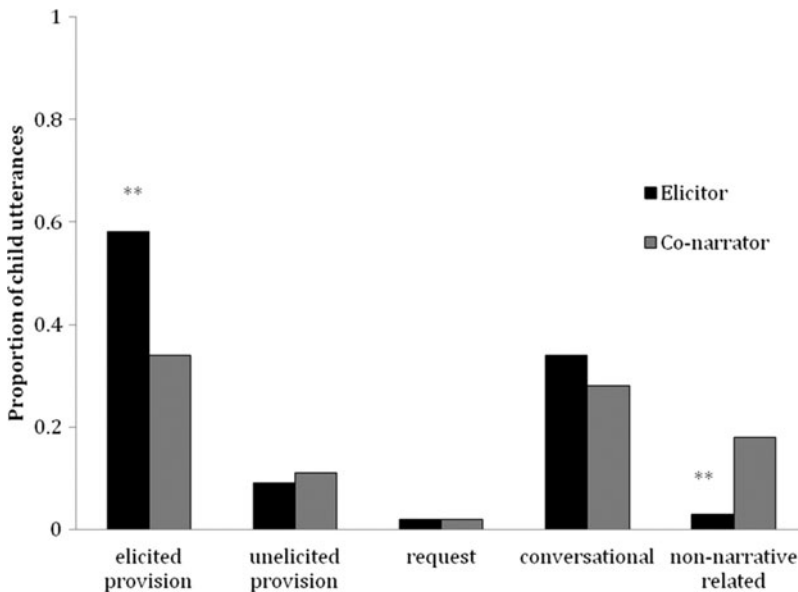


FIGURE 2 Difference in proportion of child utterances between children whose parents adopted an elicitor or co-narrator style in conversations about past positive experiences. $**p < .001$.

Parents who were non-elicitors in conversations about emotionally positive experiences adopted a *co-narrator* style (56% of parents), sharing the role of the narrator with their child (Melzi et al., 2011). They followed the flow of the conversation almost half of the time (44%), asked some questions (27%), talked about related events (18%), and provided some information (11%). In conversations about emotionally negative experiences, parents who were non-elicitors adopted either a co-narrator (44% of parents) or a *didactic* style (29% of parents) characterized by focusing on teaching a lesson or principle to their child. Co-narrators spent half of the time following the flow of the conversation (50%), asking some questions (30%), talking about related events (10%), and providing some information (10%). In contrast, didactic parents spent almost half of the time (40%) talking about related events (mostly future and general knowledge talk related to the negative experience) while following the flow of the conversation (32%), asking some questions (19%), and providing some information (9%). There were no significant differences in demographic variables as a function of narrative style (chi-square tests, all $ps > .10$).

Parents' Narrative Styles Predicting Gains in Children's Attention and Impulse Control

Our second research question was whether parents' elicitor style at the beginning of prekindergarten predicted gains in children's attention and impulse control at the end of kindergarten. To answer this question, we conducted a series of multilevel modeling analyses to account for the nesting of children in schools (there were 10 children per school) in calculating parameter estimates and standard errors (Murnane & Willett, 2010). The outcome was children's attention and impulse control at the end of kindergarten (intraclass correlation coefficient = 0.16). Our main predictor was whether the parent adopted an elicitor style or not during parent-child narratives at the beginning of prekindergarten (dummy variable). Covariates included child attention and impulse control and language skills at the beginning of prekindergarten, child age and gender (whether the child was male), and parent education (whether the parent held a high school degree or higher). We conducted separate multilevel modeling analyses for parents' elicitor style in negative and positive experiences.

Table 3 presents the results of our multilevel modeling analyses. Parents' elicitor style in negative experiences at the beginning of prekindergarten significantly predicted gains in children's attention and impulse control at the end of kindergarten. Specifically, parents who frequently requested information from children through the use of questions and by maintaining the flow of the conversation, providing little information themselves, and staying on topic when reminiscing about negative experiences had children who had better attention and impulse control in kindergarten. It is important to note that these associations were present even when we accounted for the effects of important covariates, including child language at the beginning of prekindergarten, child age and gender, and parent education. Parents' elicitor style in positive experiences at the beginning of prekindergarten was not significantly related to children's attention and impulse control at the end of kindergarten. Thus, the effects of parents' elicitor style on children's attention and impulse control were particular to conversations about negative experiences.

TABLE 3

Multilevel Modeling Analyses Describing the Relation Between Parents' Elicitor Style in Reminiscing About Negative and Positive Experiences and Gains in Children's Attention and Impulse Control at the End of Kindergarten ($N = 210$)

<i>Variable</i>	<i>Negative Experience</i>	<i>Positive Experience</i>
Fixed effects		
Predictor		
Parent elicitor style	0.20* (0.13)	0.12 (0.11)
Covariates		
Child attention/impulse control in pre-K	0.39*** (0.07)	0.40*** (0.07)
Child language in pre-K	0.03 [†] (0.02)	0.03 [†] (0.02)
Child age	-0.02 (0.02)	-0.01 (0.02)
Child male	-0.12 (0.11)	-0.12 (0.10)
Parent education	0.06 (0.11)	0.06 (0.11)
Random effects		
Intercept	0.41 (0.10)	0.43 (0.10)
Residual	0.61 (0.04)	0.61 (0.04)

Note. Standard errors are in parentheses. pre-K = prekindergarten.

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

DISCUSSION

The goal of this study was twofold: (a) to investigate whether low-income Chilean parents adopted an elicitor style in conversations about past emotional experiences, and (b) to determine whether this elicitor style was predictive of gains in children's attention and impulse control at the end of kindergarten.

Reminiscing practices are pervasive in many Latin American communities. A number of studies have shown that families in these communities naturally and frequently engage in conversations about personal past experiences (McCabe et al., 2008). Hence, examining parent-child interaction in reminiscing contexts is an ecologically valid and meaningful way to determine how cultural contexts influence self-regulation development. This is the first study to identify an elicitor style in conversations about past negative and positive experiences in a sample of low-income Latin American parent-child dyads, in particular Chilean families. In previous studies with families of Latin American origins, an elicitor style was identified in a reminiscing task, but the focus was not on discussing past emotional experiences (Melzi et al., 2011). Our finding validates previous studies examining variability in Latin American parents' utterances during reminiscing and suggests that this elicitor style is not specific to the topic of conversation. Rather, this style is a systematic pattern of parent-child interaction that permeates different Latin American communities and personal narrative content.

Prior research on narratives revealed a strong and consistent relation between parents' *elaborative* style and a variety of child outcomes in English-speaking communities (see Fivush et al., 2006) and non-English-speaking communities, including Latin American (Leyva, Reese, Grolnick, & Price, 2008; Leyva, Sparks, & Reese, 2012; Leyva et al., 2014) and Maori (Hayne & MacDonald, 2003) communities. An elicitor style differs from an elaborative style, though. A hallmark of an elicitor style is encouraging children to tell the story on their own, whereas a hallmark of an elaborative style is encouraging children to coconstruct the story (Fivush

et al., 2006). Both elicitor and elaborative styles use a high number of narrative elaboration requests. In fact, we found that elicitor parents in our sample spent about 50% of the time making these requests. However, elicitor parents use similar proportions of open- and closed-ended questions, yes/no questions, memory prompts, and fill-in-the-blank statements. In contrast, elaborative parents typically use a higher proportion of open-ended questions (e.g., “How did you feel?”) than any other type of requests because these questions are particularly central to helping children coconstruct the story (Fivush et al., 2006).

Another important difference is that elicitor parents, unlike elaborative parents, do not provide a great deal of rich information. They make elaborative statements less than 10% of the time. Unlike elaborative parents, elicitors maintain the flow of the conversation through utterances that do not add new pieces of information (e.g., confirmations, partial or full repetition of the interlocutor’s previous utterance, clarifications, backchanneling). Elicitor parents spend about 30% of the time maintaining the flow of the conversation. Hence, the elicitor style is distinctive from an elaborative style in that it taps into a different dimension of parental scaffolding style. Furthermore, the elicitor style reflects an important cultural value in Latin American communities: developing social and interpersonal skills through narratives (Schieffelin & Eisenberg, 1984; Schieffelin & Ochs, 1986; Zentella, 1997). Because the communicative goal is to further children’s social and interpersonal skills and to build harmonious relationships, parents adopt an elicitor style to foster children’s active verbal participation in narratives.

Another significant finding of this study was that parents’ elicitor style at the beginning of prekindergarten was predictive of gains in children’s attention and impulse control at the end of kindergarten. Specifically, parents’ elicitor style in conversations about a past negative but not positive experience was linked to gains in children’s attention and impulse control in kindergarten. This association was present even when we controlled for measures of child language skills at the beginning of prekindergarten, child age and gender, and parent education.

Why should an elicitor style in reminiscing about negative experiences matter for developing children’s attention and impulse control? Our findings suggest that when parents adopt an elicitor style their children are more likely to contribute new information to the conversation (i.e., they produce more elaborative elicited-provision utterances). Allowing children to contribute to conversations about negative experiences might influence their attention and impulse control because it provides an opportunity for children to (a) problem-solve difficult situations involving negative conflict (e.g., learning and practicing how to control negative behaviors and emotions in an appropriate way); and (b) identify, label, and explain their own and other people’s mental states. Prior literature (Fivush & Wang, 2005; Nelson, 2005) shows that conversations about negative experiences are particularly rich in mental state content and are more likely to involve conflicts in mental states. This focus on mind-mindedness that is unique to conversations about negative experiences might help children develop verbal tools to control their attention and impulse.

Our findings also suggest that when parents adopt an elicitor style their children are more likely to focus on the task (i.e., they produce less non-narrative related utterances). Rather than talking about other related events (engaging in fantasy, future, and/or general knowledge talk), these children focus on the past emotional experience itself. This might be particularly challenging for children when discussing negative experiences (e.g., a child’s misbehavior). Thus, it is possible that focusing children’s attention on a particular past event might be fostering their ability to resist distractions and to control their attention and impulse.

Another mechanism through which an elicitor style might be linked to children's self-regulation skills is autonomy support. It is possible that parents who adopt an elicitor style share a common set of beliefs and practices about the importance of developing children's autonomy. Because these parents are more likely to allow their children to take ownership of their own actions, thoughts, and emotions (including discussing and expressing negative past emotions), their children might be more likely to develop self-regulation. According to self-determination theory, support for an individual's autonomy facilitates internalization of autonomous self-regulation (Deci & Ryan, 2000; see also Liew, Kwok, Chang, Chang, & Yeh, 2014). Hence, parental autonomy support might be another way to explain the relation between an elicitor style and children's self-regulation skills. Note that when parents adopt the role of the eliciting audience and children assume the role of the narrators, children have some level of autonomy but within the freedom granted by their parents. Hence, the parent-child hierarchical relationship, common in Latin American communities, persists because the parents are still the ones asking the questions and confirming children's answers in the conversation.

Finally, it is possible that parents who adopted an elicitor style in our sample are those who place the strongest value on developing children's social and interpersonal skills. Given that these parents are focused on fostering these abilities, they use a narrative style (elicitor) that allows children to take the role of the narrator and practice their social and interpersonal skills. In future studies, it seems critical to collect data about parental goals and beliefs around narratives as a way to determine the interplay between narrative styles and parental goals and beliefs in the development of children's self-regulation skills in Latin American communities.

It is notable that our findings are in line with prior literature indicating that the quality of parent-child interactions in conversations about past negative experiences is associated with Latin American children's social skills, in particular social problem-solving abilities (Leyva et al., 2014). Our results also support research showing that positive parental responses to children's negative emotions improve children's effortful control, a key component of self-regulation (Valiente, Lemery-Chalfant, & Reiser, 2007). One of the basic premises in the literature on self-regulation development is that these abilities are linked to school achievement. In the future, we hope to study the relation between parents' scaffolding styles in narratives, self-regulation, and school achievement.

Previous research indicates that Latin American parents and children switch roles (narrator/audience) depending on whether they engage in reminiscing or book sharing (Casper, 2009; Melzi, 2000; Melzi et al., 2011). This role switching responds to the cultural values and beliefs of these communities and to the specific expectations and goals that parents hold when engaging children in these activities. When sharing books, Latin American parents typically assume the role of the sole narrator, and this storyteller style is related to children's attention and impulse control (Melzi et al., 2012). When reminiscing together, parents typically assume the role of the audience, and, as our study suggests, this elicitor style is related to children's attention and impulse control.

We do not interpret our findings as contradicting those obtained by Melzi et al. (2012) but rather as complementing them. Our results indicate that there is not a single or better scaffolding style that fits all contexts. Children can learn and practice how to direct and control their attention and impulses by adopting the role of the audience with the support of their parents in book-sharing contexts. Similarly, children can learn and practice how to focus their attention and control their impulses by assuming, with the support of their parents, the main role of the narrator

when reminiscing together. Certainly, the take-away message here is that there are different pathways through which Latin American parents may foster the development of children's self-regulation skills. These different pathways are contingent on the context and, in particular, the cultural goals, beliefs, and values of parents in interactions with their children.

Ideally, we would have compared parents' scaffolding styles in book-sharing and emotional reminiscing tasks. By using both contexts, we would have determined whether parents who adopted an elicitor style in an emotional reminiscing context were also adopting a storyteller style in a book-sharing context and whether the combined effect of these scaffolding styles was associated with children's attention and impulse control. However, a pilot study showed that a book-sharing context was not an ecologically valid setting in which to study family narrative practices in this particular low-income Chilean community. Parents seldom reported using print material to engage in conversations with their children. This is in line with research on the home literacy environment of this community (Rivadeneira, 2013). Thus, we refrained from imposing an activity that was clearly not meaningful for these families.

There are two important caveats to our findings. First, the nature of the association found between parents' elicitor style and gains in children's attention and impulse control is not causal or unidirectional. In this study, we have identified possible mechanisms through which parents' narrative scaffolding might influence the development of children's attention and impulse control. However, we acknowledge that children's attention and impulse control may also shape the way in which parents scaffold their children's narrative participation. Second, a significant percentage of parents in our study adopted a narrative style other than the elicitor style. We interpret this finding as indicating that individual differences and natural variability within the group are present. We caution readers about assuming that low-income Latin American parents are monolithic in their patterns of interaction with children. As others have argued, patterns of parent-child interactions are *influenced* by the culture rather than *determined* by the culture (Melzi et al., 2011; Rogoff, 2003; see also Caspe, 2009).

Limitations

There are some limitations to this study. First, we focused on a specific aspect of self-regulation: attention and impulse control (following Melzi et al., 2012, and Bibok et al., 2009). Other abilities, such as working memory, should be investigated in order to have a better understanding of how parental scaffolding styles influence the development of self-regulation abilities in Latin American communities. Second, we used teacher ratings, an indirect measure of children's attention and impulse control. An advantage of using teacher ratings is that teachers typically have extensive contact with children and hence may offer valuable insight into the ways in which children regulate their behavior, attention, and emotion in school. However, these reporters also differ in experience, expectations, and personality, which may influence the results of these assessments (Burchinal & Cryer, 2003). Teachers rated children's self-regulation using a 25-item questionnaire developed for this particular community. It would be important to validate this questionnaire in other Latin American communities. Future research should also use direct assessments of children's attention and impulse control or include parental reports as a way to triangulate the data

and to have a full picture of children's self-regulation competence. Third, we acknowledge that collecting more specific demographic data on Chilean families (e.g., income) above and beyond the criteria used by the Ministry of Education might have improved precision in controlling for covariates in our analysis.

Practice and Policy Implications

Focusing on the development of self-regulation in children who are at risk for school failure is a way to ensure equality of educational opportunity for all children (Blair & Diamond, 2008). Children who develop the capacity to persevere during a task by focusing and sustaining their attention and inhibiting improper behaviors are more likely to acquire academic content. Moreover, motivated children with positive self-efficacy beliefs are more likely to invest effort into acquiring academic content (Blair & Diamond, 2008). Hence, intervention programs targeting children who are at risk for school failure should focus not only on teaching early literacy and math skills but also on developing self-regulation. An exclusive focus on academic skills is likely to be ineffective in promoting children's school achievement.

In recent years, the government of Chile has made significant investments in early childhood education programs, particularly in terms of access. In 2012, 80.4% of 4-year-old children in Chile were enrolled in a preschool program (Ministerio de Educación, 2012). However, the quality of some of these early education programs has been characterized as inadequate (Strasser & Lissi, 2009). One way to improve the quality of these programs is through parental involvement. Latin American communities have a strong oral tradition. Family intervention programs in Chile and elsewhere in Latin America might capitalize on parents' abilities and motivation to scaffold children's participation in narratives (particularly reminiscing about emotional experiences) as a way to foster children's development, including self-regulation skills.

There are several innovative programs designed to improve both self-regulation and early academic skills in young children, such as Tools of the Mind (Bodrova & Leong, 2006; Diamond et al., 2007), the Promoting Alternative Thinking Strategies program (Domitrovich & Greenberg, 2000), and the Incredible Years (Webster-Stratton, 1998). However, to our knowledge there are very few efforts in the United States or Latin America encouraging meaningful and culturally appropriate family practices such as reminiscing to help develop children's self-regulation. Future research should examine the effects of such programs on enhancing self-regulation and academic skills in children.

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APPENDIX A

Attention and Impulse Control Items Included in Teacher Ratings

TABLE A-1
Attention and Impulse Control Items Included in Teacher Ratings

<i>Spanish Version</i>	<i>English Version</i>
<i>Sigue indicaciones</i>	Follows directions
<i>Se puede concentrar en una actividad</i>	Is able to focus on an activity
<i>Pasa de una actividad a otra sin haberla terminado</i>	Goes from one uncompleted activity to another (reverse coded)
<i>Espera su turno en los juegos o actividades</i>	Waits his or her turn in games or activities
<i>Piensa antes de actuar, no es impulsivo</i>	Thinks before he or she acts, is not impulsive
<i>Se mueve demasiado</i>	Fidgets or moves excessively (reverse coded)
<i>Interrumpe actividades en curso</i>	Disturbs ongoing activities (reverse coded)

Note. Three scales guided the development of this new, linguistically and culturally adapted instrument: the Social Skills Rating Scale (Gresham & Elliott, 1990), the Early Development Instrument (Spanish version; Janus & Offord, 2007), and the Child Activity Scale (Bierman et al., 2008). The questionnaire was administered in Spanish.

APPENDIX B

Sample Excerpts Illustrating Parents' Elicitor Style in Reminiscing

TABLE B-1
Sample Excerpts Illustrating Parents' Elicitor Style in Reminiscing

<i>Spanish (Original)</i>	<i>English (Translation)</i>
	Negative experience
*PAR: <i>¿Te acordai Esteban cuando se te perdió tu perrito?</i>	*PAR: <i>Do you remember, Esteban, when you lost your doggie?</i>
*CHI: Sí.	*CHI: Yes.
*PAR: <i>¿Cómo se llamaba?</i>	*PAR: <i>What was his name?</i>
*CHI: <i>¿Cuper?</i>	*CHI: Cuper.
*PAR: El Flaite.	*PAR: Flaite.
*CHI: Sí, Flaite.	*CHI: Yes, Flaite.
*PAR: <i>¿Te acordai que estabai triste?</i>	*PAR: <i>Do you remember you were sad?</i>
*CHI: Sí po, yo me estaba bañando y Flaite se fué.	*CHI: Yes, I was taking a shower and Flaite left.
*PAR: Se fué.	*PAR: He left.
*CHI: Yo estaba mirando al Flaite, el Flaite estaba tomando agua y se fué.	*CHI: I was looking at Flaite, Flaite was drinking water and he left.
*CHI: Ahora no lo tengo.	*CHI: Now I don't have him.
*PAR: No lo tenís, lo buscamos y no lo encontramos.	*PAR: You don't have him, we looked for him and didn't find him.
*CHI: <i>¿No lo encontramos?</i>	*CHI: We didn't find him?
*PAR: No po.	*PAR: No.
*PAR: <i>¿Cuando fuimos a buscar?</i>	*PAR: <i>When did we go and look for him?</i>
*PAR: <i>¿Te acordai?</i>	*PAR: <i>Do you remember?</i>
*CHI: Ayer.	*CHI: Yesterday.
	Positive experience
*PAR: <i>¿Te acordai Esteban cuando fuimos a Fantasilandia?</i>	*PAR: <i>Do you remember, Esteban, when we went to Fantasyland?</i>
*PAR: <i>¿Cuando fuimos a los juegos con el Matías?</i>	*PAR: <i>When we went to the rides with Matías?</i>
*CHI: Sí.	*CHI: Yes.
*PAR: <i>¿Cómo era el juego?</i>	*PAR: <i>How were the rides?</i>
*CHI: Así, rápido, rápido.	*CHI: Like this, fast, fast.
*PAR: <i>¿Rápido, bacán no?</i>	*PAR: <i>Fast, cool, right?</i>
*CHI: Sí.	*CHI: Yes.
*PAR: <i>¿Cuando fuimos al cumpleaños de...?</i>	*PAR: <i>When we went to the birthday party of...?</i>
*PAR: <i>¿De la Tía Lina?</i>	*PAR: <i>Aunt Lina's?</i>
*PAR: <i>¿Te acordai?</i>	*PAR: <i>Do you remember?</i>
*CHI: Sí.	*CHI: Yes.
*PAR: <i>¿A qué jugaste?</i>	*PAR: <i>What did you play?</i>
*CHI: A eso.	*CHI: That.
*PAR: <i>¿A qué?</i>	*PAR: <i>What?</i>
*CHI: A eso, que tenía eso.	*CHI: That, that which had that.
*PAR: <i>¿Y estaba divertido o no?</i>	*PAR: <i>And was it fun or not?</i>
*CHI: Sí.	*CHI: Yes.

Note. Narrative requests are in italics. Children's and adults' names are pseudonyms. PAR = parent; CHI = child.