




Mother–child Narrative Interaction in Adoptive Families: Differences Across Narrative Contexts

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Abstract

The majority of the existing research dedicated to the mother–child narrative interaction has focused on biological families during the co-construction of autobiographical narratives and has consistently shown that the mothers’ narrative support has an important influence on children’s narrative participation and overall development. The current study aimed to compare adoptive mothers’ narrative support and children’s narrative participation in different types of narrative tasks. Specifically, we analyzed the narrative interaction between 30 preschool-aged children and their adoptive mothers during the co-construction of two autobiographical narratives and one fictional narrative. We also explored the influence of the mothers’ use of elaborative and repetitive narrative dimensions, as well as the children’s sex, early adversity, and language development in children’s narrative participation. The results revealed that the adoptive mothers tended to use the elaborative dimension more in the fictional narrative than in the autobiographical ones. For the adoptive mothers’ use of the repetitive dimension and the children’s narrative participation, no significant differences were found between the three narrative tasks. Additionally, the results showed that the adoptive mothers’ use of the elaborative dimension significantly predicted children’s participation in the autobiographical narratives, while their use of the repetitive dimension significantly predicted children’s participation in the fictional narrative. The results of this study highlighted the relevance of the adoptive mothers’ ability to adapt their narrative support to the specific type of narrative task, as well as how such support may enhance or hinder children’s narrative participation during the co-construction of both autobiographical and fictional narratives.

Keywords Mother–child narrative interaction · Mothers’ narrative support · Autobiographical narratives · Fictional narratives · Adoptive families

Introduction

Narratives can be viewed as accounts of events (Hudson and Shapiro 1991) through which individuals organize and interpret their experiences (Bruner 1990) and co-author their selves (McLean 2016). Moreover, they play a central role in the process of socialization, because they foster the communication and the transmission of cultural and social

values and norms (Ely and Gleason 1996). According to Hudson and Shapiro, the ability to create and produce narratives is a cognitive and linguistic task that entails elaborate knowledge of different domains—events and episodes, narrative genres, linguistic norms, narrator-listener dynamics, and social interactions. The acquisition of narrative skills is therefore an important and challenging developmental task for children (Hudson and Shapiro 1991). As Vygotsky’s (1978) socio-cultural paradigm emphasized, children develop such skills through social interactions with more proficient partners. In these interactive experiences, they take part of demanding activities with the support of adults, who assist and direct their learning more effectively. As a result, they have the opportunity to learn and internalize the necessary skills to perform such tasks in a progressively autonomous way.

Along these lines, recent research has centered on understanding the influence of parent-child conversations on the children’s cognitive and socio-emotional skills

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(Fivush et al. 2006). During the preschool years, parents and children engage in significant verbal interactions, which not only serve specific functions in children's development, but wherein parent-child discourse assumes distinct characteristics according to the contexts (Crain-Thoreson et al. 2001). A substantial body of research in this area has therefore focused on the two conversational contexts addressed in this study, namely autobiographical and fictional contexts, in order to understand such characteristics and their influence in the children's development (e.g., Fivush et al. 2006; Fletcher and Reese 2005). In addition to these conversational contexts, the parent-child narrative interaction is also related to other factors, such as socioeconomic factors (e.g., gender, age, and culture), linguistic competency, temperament, self-awareness, and attachment patterns (Fivush et al. 2006).

Through parent-guided conversations about past autobiographical events, children learn about, and become more competent at recalling and describing their personal past experiences through coherent, appealing, and informative narratives (Fivush et al. 2006; Haden et al. 1997; Reese and Fivush 1993). This ability to create organized narratives about personal past experiences occurs early in children's development (e.g., Fivush et al. 1995; Hudson and Shapiro 1991), and fosters an array of domains, such as understanding of mind (e.g., Fivush et al. 2006), language development, literary competence (e.g., Fivush et al. 2006), construction of the self (e.g., McLean 2016; Fivush and Nelson 2006), autobiographical memory (e.g., Bird and Reese 2006; Farrant and Reese 2000; Fivush et al. 2006), and the sense of belonging to a culture (Ely and Gleason 1996).

Parents initially support their children's construction of narratives about past events by providing structure and information through the use of questions and responses (Farrant and Reese 2000). Over time, these aptitudes are gradually integrated into the children's repertoire of skills, fostering not only their growing contribution and independence in producing narratives but also the quality of their formed narratives about the events (Fivush et al. 1995; Hudson and Shapiro 1991).

Empirical findings suggest that mothers' style of talking with their children about past events predicts children's narrative performance (McCabe et al. 2006). Studies pointed to the importance of the elaborative narrative style, which is characterized by rich and encouraging interventions by the mothers in order to add and solicit new information about the events, for the children's development (e.g., Fivush and Fromhoff 1988; Peterson and McCabe 1994; Reese and Fivush 1993). According to some of these studies, this maternal narrative style positively influences the children's language and narrative skills, and other cognitive and socio-emotional competencies, such as

memory, performance at school, theory of mind, and understanding of the self and emotions (Fivush et al. 2006). More specifically, several authors stated that elaborative questions (especially open-ended ones) and statements, as well as positive evaluation and feedback, promote children's narrative development, because these narrative elements add and provide new information about the events, and stimulate and validate the contribution and participation of children in their recalling (Farrant and Reese 2000; Haden et al. 1997; Fivush et al. 2006).

The elaborative style is not the only way for mothers to support their children's narrative production. According to Wenner et al. (2008), all mothers are elaborative in style to some degree and upon certain circumstances, but some mothers are consistently less elaborative or more repetitive than others, by consistently providing brief conversations, as well as redundant and repetitive interventions (e.g., Fivush and Fromhoff 1988; Peterson and McCabe 1994; Reese and Fivush 1993). The influence of the mothers' narrative support on their children's developmental domains has therefore been studied both during childhood and adolescence (e.g., Habermas et al. 2010; McLean and Mansfield 2012).

Another important and widely studied conversational context is that of fictional narratives. Similar to what happens during autobiographical conversations, in fictional narrative interactions, parents provide an important interpersonal context in which children have the opportunity to learn and practice how to tell stories (Tompkins and Farrar 2010). Children are also exposed to a greater complexity of language, feelings, thoughts, and concepts that are elicited by predetermined narrative plots, arguments, and images (Fletcher and Reese 2005; Hoff-Ginsberg 1991). This context therefore exerts an important influence on children's development of reading, literacy, and language competencies (Bus et al. 1995).

Despite the greater structure of the fictional narratives when compared to the autobiographical ones, mothers also differ in their conversational styles when talking about fictional events with their children (Melzi et al. 2011). This appears related to factors such as children's competencies, the reading context, knowledge of books, and the gender of the participants (Crain-Thoreson et al. 2001). For instance, Haden et al. (1996) distinguished three scaffolding styles: describers (mothers who describe and elaborate the story but do not involve their children in the narrative), collaborators (mothers who stimulate children's contributions by providing positive and encouraging comments and feedback), and comprehenders (mothers who promote children's participation and comprehension by fostering their predictions and inferences about the story). The same researchers analyzed the impact of these different interactive styles on the language and literacy development of children and

concluded that comprehenders stimulated story comprehension competencies in children, whereas collaborators promoted their decoding skills. Comprehenders and collaborators therefore had, in the context of this study, a greater beneficial influence on children's development than the describers, because the children of those mothers exhibited superior performance in several literacy measures.

Another study by Reese and Cox (1999) also focused on narrating fictional events. It compared the describer and comprehender styles with performance-oriented mothers. These performance-oriented mothers introduced the book without interruptions, only discussing the story's meaning before and after reading the book. These researchers found that the describer style, when compared with the other two styles, was most beneficial for developing children's vocabulary and writing abilities when they presented a better initial competency for story comprehension. In contrast, however, the performance-oriented style was found to be most favorable for children with a better initial vocabulary competency.

Other studies have sought to examine mothers' elaborations during the fictional setting. Melzi et al. (2011), for example, studied Spanish-speaking and English-speaking mothers and found that mothers could be classified into two distinct groups according to their narrative features in the fictional conversational context. First, the mothers labeled as storytellers assumed the role of principal narrator, thus using more affirmations than questions in order to supply the necessary information to the children, who in turn assumed the role of the audience. Second, mothers labeled as story builders encouraged children's participation as co-narrators in the story by combining the use of affirmations and questions, thus allowing and stimulating discussion of the different topics within the story.

Comparative studies between different narrative contexts (e.g., play, mealtime, autobiographical, and fictional) showed significant differences regarding the characteristics of the parent-child discourse, specifically in terms of the syntactical and lexical complexity, utterance length, participation, elaborative elements, and emotional aspects (Crain-Thoreson et al. 2001; Laible 2004; Melzi et al. 2011; Tompkins and Farrar 2010). Some of these investigations (Crain-Thoreson et al. 2001; Melzi et al. 2011; Tompkins and Farrar 2010) highlighted a greater discursive complexity and elaboration for mothers in the fictional context when compared to the autobiographical context. Melzi et al. (2011) concretely discovered that mothers used questions as their primary form of elaboration during autobiographical narratives and statements during fictional narratives.

Tompkins and Farrar (2010) found a similar result in their study of the mothers of children with specific language impairments. These results suggest that mothers tend to adapt their scaffolding style to the narrative task (Fivush

et al. 2006). Thus, according to various researchers (e.g., Haden et al. 2009; Melzi et al. 2011), the use of questions helps children to become partners in the conversation, while the use of statements reflects mothers' tendency to control the narrative interaction. In this sense, some research has explored not only the influence of the elaborative vs. the repetitive style but also the impact of the specific elaborative elements (e.g., elaborative questions and elaborative statements) on children's narrative participation and memory skills. Some of these studies concluded that the inclusion of questions, especially open-ended ones, was predictive of children's outcomes, because elaborative questions promote their engagement and their authorship in the narrative production (Boland et al. 2003; Cleveland and Reese 2005; Farrar and Reese 2000; Fivush et al. 2006; Haden et al. 2009; McLean and Mansfield 2012).

Despite numerous investigations carried out within the field of the mother-child narrative interaction, most to date have been essentially conducted with middle-class European/American dyads (Melzi et al. 2011), where the children often present normative language skills (Tompkins and Farrar 2010). Consequently, little is known about the conversational dynamics of other dyads, as well as how their specific characteristics influence children's development.

In the case of adoptive families, mothers and children do not share biological ties, and the children already come with a past where they may have been exposed to adverse emotional and physical experiences (van IJzendoorn and Juffer 2006). In fact, even children adopted at an early age are often confronted with significant risks during the pre-, peri- and post-natal periods (van IJzendoorn et al. 2005). For instance, genetic problems in the biological family, risk behaviors by the biological mothers during pregnancy, birth problems, abandonment, neglect, maltreatment in the biological family, or low quality of care in an institutional context are common factors in these children's early lives (Goldman and Ryan 2011; Johnson 2002; Stams et al. 2000). More specifically, it has been widely documented in the literature how the lack of a consistent, nurturing, and responsive caregiver during the first years of the children's development has a negative effect (MacLean 2003).

In his pioneering work, Bowlby (1969) demonstrated how disruptive care and the lack of an attachment relationship with a maternal figure during infancy can have severe consequences for a person's development across life. During recent decades, several other studies have corroborated the pernicious impact of this early adversity on children's subsequent development in physical, cognitive, behavioral, emotional, and social domains (e.g., Johnson 2002; MacLean 2003). Longer periods of living in institutional contexts and late adoptions, especially after 12 months of age, were found to be particularly associated with negative developmental outcomes, even after the

integration of children into adoptive families (van IJzendoorn and Juffer 2006). Some of these difficulties, especially those observed in the socio-emotional domain, remain common during adolescence and adulthood (Juffer and van IJzendoorn 2005). Despite this, it is important to note that empirical studies and meta-analyses have demonstrated that most adopted children are well developed and adjusted (van IJzendoorn et al. 2005; van IJzendoorn and Juffer 2006). van IJzendoorn and Juffer (2006) therefore conceive adoption as a natural intervention that fosters children's resilience and enhances their development and psychosocial adjustment.

Within the framework of narrative development, the exploratory study of Saraiva (2010) examined Portuguese children living in institutional contexts and demonstrated the pernicious impact of institutionalization on children's autobiographical narratives. More precisely, this study revealed how these children, who were aged 7–12, presented more difficulties in recalling emotions, body sensations, cognitions, and metaphors in their autobiographical narratives when compared to their peers in the community. This suggests that the elaboration of autobiographical knowledge may have been less rich for these children than for their peers in the control sample.

Another investigation looked at Portuguese adoptive families (Baptista 2011) and revealed that when compared with Portuguese biological mothers (Sousa 2008), adoptive mothers produced fewer body sensations, emotions, cognitions, and metaphors during the construction of fictional narratives with their children (Baptista 2011). Despite these preliminary findings, further investigation is needed to fully understand the influence of early adverse experiences on the mother–child narrative interaction and the children's narrative abilities.

Considering these theoretical issues and empirical findings, the present study was assigned two main objectives. The primary objective was to analyze the influence of the nature of the narrative task on maternal narrative support and children's narrative participation, using three distinct conversational contexts: (a) past autobiographical events experienced simultaneously by both mother and child; (b) past autobiographical events experienced only by the child; (c) and fictional events. We hypothesized that the narrative support of adoptive mothers would differ according to the task. More specifically, we predicted that the mothers would use the elaborative dimension more in the fictional task, followed by the shared events task, and lastly by the unshared child's events task. Likewise, due to their mothers' narrative support, we predicted that the children would participate more in the fictional task, followed by the shared events task, and finally by the unshared child's events task. The second objective was to analyze the influence of maternal narrative support, together with

children's characteristics and adverse experiences, on the children's own participation in each narrative task. More specifically, the objective here was to establish if children's narrative participation was influenced more by their own characteristics and competencies or by the narrative support of their mothers. We hypothesized that adoptive mothers' use of the elaborative dimension in the narrative co-construction, as well as the time spent by the children in the institutional context would predict children's participation in the three narrative tasks.

Method

Participants

In total 30 preschool-aged children (16 male, 14 female) and their adoptive mothers participated in this study. All the mothers and children spoke Portuguese as their native language, and all the adoptions had been domestic (i.e., all the children had lived in Portuguese institutional contexts and been adopted by Portuguese families). The dyads were identified by the Portuguese adoption services according to our exclusion criteria: any children who were older than 32 months at the time of adoption, as well as any children who had lived with their adoptive families for <2 years or >3 years were excluded from the study. Once families agreed to be contacted by the research team for participation in the study, written informed consents were obtained regarding the participation of the children and the mothers.

All the children had lived in institutional contexts before their adoptions. At the time of the assessment, the children had been living with their adoptive families for around 2 years ($M = 2.05$ years, $SD = 0.01$) and ranged in age from 31 to 58 months ($M = 45.17$ months, $SD = 8.75$). They were, on average, adopted at 15.67 months of age ($SD = 9.01$; range = 3–32 months of age) and had lived an average of 13.73 months in an institutional context ($SD = 8.41$; range = 25 days–30 months). Approximately 40% ($n = 12$) of the children had been abandoned, while 60% ($n = 18$) had been removed from their biological families. Approximately 44.4% ($n = 8$) of those removed from their biological families had experienced neglect. For their language development, the children were on average in the 30.23 percentile ($SD = 27.81$; range = 1 percentile–97 percentile).

In total 28 adoptive mothers participated in this study, ranging in age from 34 to 47 years ($M = 38.70$ years, $SD = 3.41$) at the time of the assessment. Two mothers participated with two different children at different times in this study. Almost all (96%; $n = 27$) of the adoptive mothers were married, while just 4% ($n = 1$) were single. For 64% ($n = 18$) of the adoptive families, the target child was their only child, while 36% ($n = 10$) also had a biological or

another adopted child in addition to the target child. Sixty-four percent ($n = 18$) of the adoptive mothers had a higher education, while 21% ($n = 6$) had completed secondary school, and 14% ($n = 4$) had finished middle school. Considering the education level and professional occupations of the adoptive parents, the majority of the children were adopted by families in the middle to upper-middle socioeconomic classes.

Procedure

Data Collection

Data were collected as part of a longitudinal research project focused on the development and adjustment of adopted children, as well as the mother–child relationship construction in adoptive families (for further information see Sousa et al. 2018). However, only the tasks used in this study are described here.

Two assessment sessions were performed, usually 2 weeks apart ($M = 12.52$ days, $SD = 6.16$) in order to equally distribute the different tasks and prevent assessment sessions from being too long and overly tiring for the children. To this end, the assessment of the children's mental development—using the Griffiths Mental Development Scales—Extended Revised: 2 to 8 years (Ferreira et al. 2008; Luiz et al. 2006)—was divided and conducted over these two sessions. The locomotor subscale was specifically selected to be implemented in a clinical setting in order to guarantee the same application conditions for all children (e.g., the use of the same stairs to assess some items of this subscale).

Two female PhD students administered the same tasks during data collection. Session 1 was conducted at the families' homes. During this session, the children's mental development was assessed, and a questionnaire focused on socio-demographic information about the adoptive families and the children's pre-placement experiences was completed. Session 2 was performed in a clinical setting to evaluate the mother–child narrative co-construction through the three narrative tasks (two autobiographical and one fictional) and complete the children's mental development assessment. These two sessions were carried out at times that were most convenient for the families.

Narratives Transcription and Coding

Following the procedure described by several authors in the narrative co-construction field (e.g., Farrant and Reese 2000; Reese and Fivush 1993), the three narrative tasks (two autobiographical and one fictional) were firstly transcribed verbatim from video recordings by previously trained transcribers who also noted nonverbal

communicative behaviors (e.g., when a child shook his or her head to indicate “yes” or “no”). After the transcription of the narratives, one researcher specifically examined the autobiographical narratives to determine the beginning and end of conversations about each event.

Following the previous procedures, the content of the mother–child narratives during the autobiographical and fictional tasks was analyzed through the Maternal Reminiscing Coding Manual (Fivush and Fromhoff 1988; Reese et al. 1993), a widely used coding system in mother–child narrative co-construction studies (e.g., Bost et al. 2006; Melzi et al. 2011; Wenner et al. 2008) that has eleven categories for the mothers' discourse and ten categories for the children's discourse. Considering that this coding system was originally developed to examine mother–child narratives about past events, we made some slight modifications to it in order to render it suitable for fictional narratives. According to this system, the mothers' and children's categories are mutually exclusive and exhaustive and must be coded at the utterance level. For this study, the raters additionally coded the emotion words and emotional behaviors (e.g., laughing, yelling, crying, hugging, kissing) presented in the narrative, regarding their valence (positive or negative) and the protagonist (the mother or the child) (Bird and Reese 2006; Bost et al. 2006).

A team of coders performed the training for this coding system using an existing set of transcripts ($n = 140$) until they accomplished an agreement reliability of 85%. After training, 35% of the transcripts for each narrative task were randomly selected and coded independently by each pair of raters for reliability evaluation. Interrater reliability was calculated separately for the mothers' and children's categories. Cohen's Kappa values ranged from .77 to .86 for the mothers' categories ($M = .83$) and .85 to .90 for the children's categories ($M = .87$). All discrepancies between the coders were resolved through consensus.

Different categorizations have been used in the literature to aggregate mothers' categories (e.g., Farrant and Reese 2000; Haden 1998; Reese and Fivush 1993; Haden et al. 1996). Following the work of several researchers (e.g., Bost et al. 2006; Côte-Real 2013; Maia 2011; Rebelo et al. 2016), we selected some of the mothers' categories and aggregated them into two broader dimensions: the *elaborative dimension* and the *repetitive dimension* (Table 1).

The elaborative dimension consists of the sum of the frequencies of the mothers' categories that provided new information (elaborative open-ended questions, elaborative close-ended yes/no questions, and elaborative contextual statements) and confirmed the children's comments (evaluations—confirmations) during the discussion of the event. In this elaborative dimension, we also considered the mothers' emotions and emotional behaviors evoked during the discussion of the event.

The repetitive dimension refers to the sum of the frequencies of the mothers' categories that repeated the exact same content from a previous comment without providing any new information (repetitive open-ended questions, repetitive close-ended yes/no questions, and repetitive contextual statements) and mothers' comments that denied the children's responses (evaluations—negations).

The other categories were not considered in these two dimensions, because some presented a low frequency and others were not related to the event (Haden et al. 2009). We display an example of the mothers' categories coding in Table 1.

Given that the children's participation in the different narratives was less than that of their mothers, and that the frequencies of their categories were generally very low, we chose to integrate the categories that were indicative of the children's narrative production (elaborative statements, repetitive statements, elaborative questions, confirmations, negations, and emotions/emotional behaviors) into one global category—a procedure that has been frequently used in previous research (e.g., Larkina and Bauer 2010). This global category is frequently designated as participation in the literature (e.g., Bost et al. 2006; Maia 2011; Melzi et al. 2011) (Table 1). Similar to the procedure that was adopted for the mothers, the remaining categories of the coding system were not considered in the analyses, because some were unrelated to the event or were considered non-productive (e.g., placeholder). We present an example of the children's categories coding in Table 1.

Measures

Socio-demographic Information and Child History

A questionnaire was developed to identify socio-demographic information related to the adoptive families (e.g., the age of the children and their adoptive parents, education levels and professional occupations of the adoptive parents) and the children's preadoption experiences (e.g., pre- and perinatal health, age when admitted to an institutional context, the duration of the institutionalization, the age when adopted, and other information related to their biological family). This information was obtained through the children's medical records and interviews with the adoptive parents.

Mental Development

The children's mental development was measured using the Griffiths Mental Development Scales—Extended Revised: 2–8 years (Ferreira et al. 2008; Luiz et al. 2006). This instrument comprises six subscales that are individually administered to assess different areas of the children's

development, namely locomotor, personal-social, language, eye-hand co-ordination, performance, and practical reasoning. Raw scores can be calculated for each subscale and the general scale (general quotient). Through these scores, we can derive percentiles values, z-scores, and mental age. In this study, only the language percentile was used.

Autobiographical Narrative Tasks

Following the procedure described by Bird and Reese (2006), the dyads were instructed to engage in conversations about shared and unshared events. More specifically, mothers were asked to: (1) select three significant past events that they experienced with their children (shared events task) and (2) select one significant past event experienced only by the children (unshared child's events task). The mothers were instructed to talk about one specific event at a time with their children. After receiving the instructions, they could talk about these events with their children without time restrictions.

Fictional Narrative Task

The mothers and children were asked to construct together, without time restrictions and in their usual manner, a story based on a wordless book called *Frog, where are you?* (Mayer 1969). This book consists exclusively of pictures, and it illustrates the story of a boy and his dog searching for their frog, which had run away. The pictures in the book allow the creation of a coherent and structured story, as well as descriptions of the actions, feelings, and dialogues between the characters (Reilly et al. 2004; Wenner et al. 2008).

Data Analyses

To examine the first and second hypotheses of the study, namely the differences between the three types of narratives concerning the mothers' use of elaborative and repetitive narrative dimensions and the children's participation, Paired-Samples *t* tests and Repeated-Measures ANOVAs were performed. For these analyses, we used the proportions (the sum of the mean frequencies of categories [of elaborative dimension or repetitive dimension or participation]/total of words [produced by mother or child] x 100) rather than frequencies, because the different types of narratives may introduce specific demands and influence the narrative production of the dyads (Tompkins et al. 2010).

Moreover, in the autobiographical narrative tasks, despite instructions to the contrary, a different number of events was evoked by the dyads. Hence, following the examples of previous studies (e.g., Farrant and Reese 2000; Haden et al. 2009; Reese et al. 1993), mean proportions

Table 1 Description of mothers' elaborative and repetitive narrative dimensions, and children's participation, and a coding example of an excerpt of a fictional narrative

Dimension	Categories	Description
Mothers' elaborative dimension	Elaborative open-ended questions; Elaborative close-ended yes/no questions; Elaborative contextual statements; Evaluations—confirmations; Emotions and emotional behaviors	All questions and statements that request from, or provide to, the child new information about the event or story, confirmations of child's contributions (directly or through the repetition of their responses) and emotions or emotional behaviors evoked during the narratives
	Repetitive open-ended questions; Repetitive close-ended yes/no questions; Repetitive contextual statements; Evaluations—negations	All questions and statements that request from, or provide to, the child the same exact information provided in mothers' previous utterances about the event or story and negations of the child's contributions about the event or story
Children's participation	Elaborative statements; Repetitive statements; Elaborative questions; Evaluations; Emotions and emotional behaviors	All questions and statements that request or provide new information or repeat the exact content of their own or mothers' previous utterances about the event or story, confirmations or negations of the mothers' previous utterances (affirmative or negative head shakes were also coded) and emotions or emotional behaviors evoked during the narratives
	Mother: <i>Look, what is this?</i> [elaborative open-ended question]	
Excerpt of a fictional narrative and its coding	Child: <i>A boy.</i> [elaborative statement]	
	Mother: <i>And what he is doing?</i> [elaborative open-ended question] <i>What he is doing?</i> [repetitive open-ended question]	
	Child: <i>He is looking.</i> [elaborative statement]	
	Mother: <i>What is he seeing?</i> [elaborative open-ended question] <i>And what is this in here?</i> [elaborative open-ended question]	
	Child: <i>I don't know.</i> [placeholder—not considered in the coding]	
	Mother: <i>It's a frog.</i> [elaborative contextual statement]	
	Child: <i>No, it's not.</i> [evaluation—negation]	
	Mother: <i>Yes, it is.</i> [evaluation—negation] <i>The frog is upset.</i> [elaborative contextual statement]	
	Mother: <i>The boy is watching the dog</i> [elaborative contextual statement] <i>and smelling the frog.</i> [elaborative contextual statement] <i>And in here, what is the boy doing?</i> [elaborative open-ended question]	
	Child: <i>It is a girl,</i> [elaborative statement] <i>not a boy.</i> [evaluation—negation]	
	Mother: <i>Is it a girl?</i> [repetitive close-ended yes/no question]	
	Child: <i>Yes.</i> [repetitive statement]	
	Mother: <i>Ok.</i> [evaluation—confirmation] <i>And what is the girl doing?</i> [elaborative open-ended question]	
	Child: <i>I don't know.</i> [placeholder—not considered in the coding]	
	Mother: <i>Oh! And what is the frog doing?</i> [elaborative open-ended question]	
Child: <i>This.</i> [elaborative statement]		
Mother: <i>He's leaving...</i> [elaborative contextual statement] <i>He's running away.</i> [elaborative contextual statement] <i>Look! While the girl sleeps,</i> [elaborative contextual statement] <i>the frog ran away</i> [repetitive contextual statement]. <i>Does he run away?</i> [repetitive close-ended yes/no question]		
Child: <i>Yes.</i> [evaluation—confirmation]		

Categories' description based on Maternal Reminiscing Coding Manual (Fivush and Fromhoff 1988; Reese et al. 1993)

were calculated and used in the statistical analyses. Finally, using the frequency values, bivariate correlations were carried out to analyze the relationships between the mothers' elaborative and repetitive dimensions in each narrative task.

Concerning the third hypothesis, bivariate correlations and hierarchical multiple regression analyses were executed to explore the relationships between the frequency of mothers' elaborative and repetitive narrative dimensions, children's sex, early adverse experiences, language development, and the frequency of children's participation. All these statistical tests were two-tailed and the alpha level was defined using Bonferroni Correction for multiple comparisons in order to control the Type I error level (Larzelere and Mulaik 1977). All statistics were computed using IBM SPSS Statistics 21.

Results

The first set of analyses using the Phi Correlation Coefficient, Pearson Correlation Coefficient, and Spearman Correlation Coefficient was conducted to determine if there were any significant relationships between the mothers' elaborative and repetitive narrative dimensions in each narrative task and the socio-demographic (the children's sex and age and the mothers' age and educational level) and mental development (language percentile) variables. No significant associations were found between these variables.

Characterization of the Autobiographical and Fictional Narratives

Concerning the shared events task, a total of 83 events were discussed by the dyads. The average number of words used by the mothers was 200.29 ($SD = 99.77$), compared with 36.26 ($SD = 32.04$) for the children. This corresponds to percentages of 84.67% and 15.33% for the mothers and children, respectively. The most frequent themes for these events were areas such as amusement parks, beaches, farms, birthday parties, and family vacations. Two raters coded these past events for whether they presented a positive, negative, neutral (i.e., an event's emotional tone was not noticeable), or ambivalent (i.e., there was a positive and negative tone within the same event) emotional valence. The average agreement reliability was 89.2%. Just as with previous research (e.g., Farrant and Reese 2000), in this study, the majority of the *shared events* had a positive emotional valence (68.7%; $n = 57$), while 16.9% ($n = 14$) were negative, 8.4% ($n = 7$) were ambivalent, and 6% ($n = 5$) were neutral in tone.

In the unshared child's events task, 36 events were discussed by the dyads. The average number of words

used by the mothers was 296.22 ($SD = 187.61$), compared with 59.35 ($SD = 48.87$) for the children. This corresponds to percentages of 83.31% and 16.69% for the mothers and children, respectively. The most frequent themes concerned specific situations at kindergarten (e.g., situations in which the child misbehaved, the first day at kindergarten, parties), friends' birthday parties, and visits to the homes of grandparents and friends. The coders' agreement was 88.6%. In this task, 52.8% ($n = 19$) of the events were positive, while 25% ($n = 9$) were ambivalent, 13.9% ($n = 5$) were negative, and 8.3% ($n = 3$) were neutral in tone.

In the fictional narratives, the average number of words used by the mothers was 912.30 ($SD = 326.26$), compared with 99.57 ($SD = 99.74$) for the children. This corresponds to percentages of 90.16 and 9.84% for the mothers and children, respectively.

Mothers' Narrative Support Across Narrative Tasks

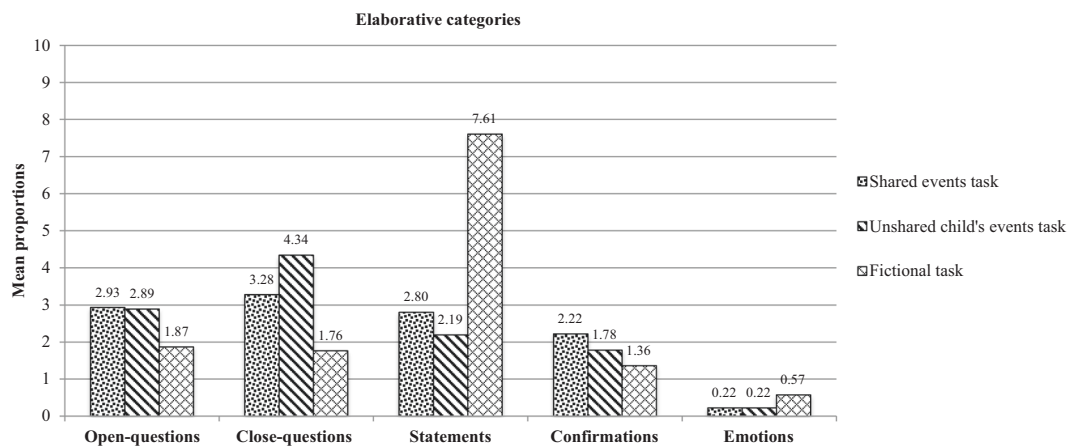
The descriptive data for the mothers' elaborative and repetitive dimensions in terms of frequencies and proportions, as well as the Pearson Correlation Coefficients between these two dimensions in each narrative task (autobiographical and fictional tasks), are presented in Table 2.

This study's first hypothesis proposed that the adoptive mothers would use the elaborative dimension more in the fictional task, followed by the shared events task, and lastly by the unshared child's events task. According to this, paired-samples t tests were carried out using the proportion values of the mothers' elaborative and repetitive dimensions. The results indicated (at a significance level with Bonferroni Correction of $p \leq .017$) that the mothers used the elaborative dimension significantly more than the repetitive one, and this held true for both the autobiographical (shared events task, $t(29) = 13.00$, $p < .001$; unshared child's events task, $t(27) = 10.14$, $p < .001$) and the fictional ($t(29) = 25.14$, $p < .001$) narratives. Interestingly, we found significant correlations between the frequency values of the elaborative and repetitive dimensions in each narrative task: the shared events task ($r = .47$, $p = .009$), the unshared child's event task ($r = .66$, $p < .001$), and the fictional task ($r = .59$, $p = .001$).

Regarding the mothers' use of the elaborative and repetitive dimensions, in order to compare the three narrative tasks, Repeated-Measures ANOVAs were performed based on proportion values. The results revealed that there were significant differences only for the elaborative dimension, $F(2, 54) = 5.13$, $p = .009$, $\eta_p^2 = .16$. Bonferroni Pairwise Comparisons then indicated that the mothers used the elaborative dimension significantly more in the fictional task than in the shared events task, and they used the

Table 2 Descriptive data and correlations for mothers' elaborative and repetitive dimensions and children's participation in autobiographical and fictional narrative tasks

Variable/narrative task	<i>N</i>	Frequency				<i>r</i> ^a	Proportion		
		<i>M</i>	SD	Range	<i>M</i>		SD	Range	
Shared events task									
Mothers' elaborative dimension	30	23.19	13.31	1.33–56.00	.47**	11.46	3.24	3.83–21.17	
Mother's repetitive dimension	30	5.40	4.14	0–20.50		2.52	1.39	0.00–5.98	
Children's participation	30	14.45	9.82	1–42.50	—	44.83	19.64	18.03–100	
Unshared child's events task									
Mothers' elaborative dimension	28	32.43	22.39	4–97	.66***	11.43	3.91	3.37–19.58	
Mother's repetitive dimension	28	8.70	8.40	0–31		2.51	1.82	0.00–7.99	
Children's participation	28	22.99	17.83	1–66	—	41.52	19.75	5.00–80.00	
Fictional task									
Mothers' elaborative dimension	30	117.40	37.36	50–205	.59**	13.17	2.14	9.95–19.63	
Mother's repetitive dimension	30	17.87	11.37	3–46		1.92	1.00	0.51–4.35	
Children's participation	30	37.47	29.34	1–102	—	43.44	16.15	13.04–80.00	

^aPearson correlation coefficient** $p < .01$, *** $p < .001$ **Fig. 1** Mean proportions of elaborative categories used in autobiographical (shared and unshared child's events) and fictional narrative tasks

elaborative dimension marginally more in that task when compared to the unshared child's events task. No significant differences were found between the mothers' use of the elaborative dimension in the shared events task and the unshared child's event task. In terms of the mothers' use of the repetitive dimension, only marginal differences were found between the three tasks, $F(2, 54) = 2.52$, $p = .090$, $\eta_p^2 = .09$.

Given the differences found across the three narrative contexts in terms of the mothers' use of the elaborative dimension, we became interested in understanding whether the mothers used the same elaborative categories that make up the elaborative dimension across the different narrative tasks. Figure 1 shows the mean proportion of each elaborative category that was used in the autobiographical (shared events and unshared child's events) and fictional narrative tasks.

Different Repeated-Measures ANOVAs were conducted and showed that there were significant differences between narrative contexts when considering all categories of the elaborative dimension. Regarding elaborative open-ended questions, we found that the mothers used this type of questioning significantly more in the autobiographical tasks than they did in the fictional one, $F(2, 54) = 7.74$, $p = .001$, $\eta_p^2 = .22$. In terms of elaborative close-ended yes/no questions, the mothers applied this type of questioning significantly more in the unshared child's events task than in the shared events task and least in the fictional task, $F(1.22, 33.04) = 23.21$, $p < .001$, $\eta_p^2 = .50$. With respect to elaborative statements, mothers used such statements more in the fictional task than in the remaining autobiographical ones, $F(1.56, 42.12) = 80.54$, $p < .001$, $\eta_p^2 = .75$. The mothers used confirmations more in the shared events task than in the fictional task, $F(2, 54) = 4.56$, $p = .015$, $\eta_p^2 = .15$.

Table 3 Correlations between predictors in hierarchical multiple regressions and children's participation in autobiographical and fictional narrative tasks

Predictor	<i>N</i>	Shared events task	Unshared events task	Fictional task
Sex ^a	30	-.12	.06	-.16
Language development (percentile) ^b	30	.34 ⁺	.21	.26
Neglect ^a	30	.02	.00	.04
Abandonment at birth ^a	30	-.15	-.19	-.16
Time in institutional context ^b	30	.36 ⁺	.00	.41*
Elaborative dimension in shared events task ^b	30	.86***	—	—
Repetitive dimension in shared events task ^b	30	.24	—	—
Elaborative dimension in unshared child's events task ^b	28	—	.89***	—
Repetitive dimension in unshared child's events task ^b	28	—	.63***	—
Elaborative dimension in fictional task ^b	30	—	—	.61***
Repetitive dimension in fictional task ^b	30	—	—	.51**

^aPoint-biserial Correlation^bPearson Correlation Coefficient⁺ $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$

= .14. Finally, mothers evoked more emotions/emotional behaviors in the fictional task than in the autobiographical tasks, $F(2, 54) = 8.33$, $p = .001$, $\eta_p^2 = .24$.

Children's Participation Across Narrative Tasks

The second hypothesis proposed that the children would participate more in the fictional task, followed by the shared events task, and lastly by the unshared child's events task. The descriptive data regarding the children's participation both in terms of frequencies and proportions are presented in Table 2. Repeated-Measures ANOVAs were executed, but no differences were found concerning their mean participation in the three narrative tasks, $F(2, 54) = 0.42$, $p = .657$, $\eta_p^2 = .02$.

Predicting Children's Participation Across Narrative Tasks

The third hypothesis of this study proposed that the adoptive mothers' use of the elaborative dimension and the children's time spent in the institutional context would predict children's participation in the three narrative tasks. We therefore sought to determine the predictors of the children's narrative participation. Accordingly, a set of hierarchical multiple regression analyses was performed for each narrative task with the following predictors: socio-demographic and developmental variables (children's sex and language development), preadoption risk variables (neglect, abandonment at birth, and time spent in an institutional context), and the mothers' use of the elaborative and repetitive narrative dimensions. Table 3 presents the correlations between the predictors and the outcome

variables. The predictors were entered in three hierarchical steps: sex and language development (Step 1); neglect, abandonment at birth, and time spent in the institutional context (Step 2); and the mothers' elaborative and repetitive narrative dimensions (Step 3).

Table 4 displays the results of the hierarchical multiple regressions. We chose to report the adjusted R^2 (ΔR^2) in order to consider the number of predictors in the models (Cohen et al. 2003). We found significant regression models for children's participation across the three types of narratives: the shared events task ($F(7, 21) = 13.26$, $p < .001$), the unshared child's events task ($F(7, 19) = 15.08$, $p < .001$), and the fictional task ($F(7, 21) = 4.56$, $p = .003$). The total amount of variance accounted for by the children's participation in the shared events task was 75% (adjusted R^2). The only significant predictor was the mothers' elaborative dimension ($\beta = .89$; $t(21) = 7.13$, $p < .001$). The total amount of variance accounted for by the children's participation in the unshared child's events task was 79% (adjusted R^2). Similar to the previous findings, the only significant predictor was the mothers' elaborative dimension ($\beta = .80$; $t(19) = 6.32$, $p < .001$). However, it is important to note that the children's sex also emerged as a marginal predictor ($\beta = .19$; $t(19) = 1.78$, $p = .091$). Finally, the total amount of variance accounted for by the children's participation in the fictional task was 47% (adjusted R^2). In contrast to the findings for the autobiographical tasks, the significant predictor of children's participation in the fictional task was the mothers' repetitive dimension ($\beta = .44$; $t(21) = 2.19$, $p = .040$). In this task, children's language development also emerged as a marginal predictor ($\beta = .28$; $t(21) = 1.86$, $p = .077$).

Table 4 Hierarchical multiple regression analyses on children's participation in autobiographical and fictional narrative tasks

Predictor	Shared events task			Unshared child's events task			Fictional task		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Step 1									
Sex	−2.63	3.60	−.13	1.23	7.08	.04	−5.81	9.92	−.11
Language development	.12	.07	.33 ⁺	.12	.13	.19	.36	.18	.36*
<i>R</i> ² (ΔR^2)	.13	(.06)		.04	(−.04)		.14	(.07)	
Step 2									
Sex	−.48	3.68	−.03	2.11	7.61	.06	.69	9.97	.01
Language development	.14	.07	.38 ⁺	.14	.14	.22	.37	.19	.37 ⁺
Neglect	4.63	5.14	.20	−2.10	11.50	−.05	5.40	13.93	.09
Abandonment at birth	1.38	4.81	.07	−11.86	10.09	−.33	5.20	13.02	.09
Time in institutional context	.45	.26	.38 ⁺	−.32	.59	−.14	1.50	.70	.45*
<i>R</i> ² (ΔR^2)	.26	(.10)		.11	(−.10)		.30	(.15)	
Step 3									
Sex	.96	2.04	.05	6.65	3.73	.19 ⁺	1.64	8.13	.03
Language development	.05	.04	.15	.07	.06	.11	.28	.15	.28 ⁺
Neglect	−.92	2.93	−.04	3.50	5.14	.08	5.78	11.83	.09
Abandonment at birth	−.85	2.53	−.04	3.65	4.71	.10	−4.09	10.66	−.07
Time in institutional context	.11	.15	.09	.48	.29	.21	1.02	.68	.31
Elaborative dimension	.67	.09	.89***	.64	.10	.80***	.15	.16	.21
Repetitive dimension	−.36	.30	−.15	.43	.31	.20	1.05	.48	.44*
<i>R</i> ² (ΔR^2)	.82	(.75)***		.85	(.79)***		.60	(.47)**	

⁺*p* < .10, **p* < .05, ***p* < .01, ****p* < .001

Discussion

The current study was developed to assess narrative interaction in adoptive mother–child dyads during two autobiographical (about shared and unshared events) and one fictional narrative tasks. Of particular interest in this research was to establish whether the adoptive mothers' narrative support and the children's participation would differ among these three narrative tasks since they presented distinct challenges and demands for both the mothers and children. For this objective, we first hypothesized that the mothers' narrative support would differ according to the narrative task, with them using the elaborative dimension more in the fictional task than in the shared events task and least in the unshared child's events task. The overall results tended to confirm this hypothesis and concurred with some of the prior research (e.g., Crain-Thoreson et al. 2001; Haden et al. 1996; Laible 2004), suggesting that mothers tended to adapt their interactive behavior to the particular demands of the conversational context (Fivush et al. 2006). In this regard, Melzi et al. (2011), for example, argued that mothers adopt different conversational roles when interacting with their children in different contexts, which may reveal distinctive levels of expertise. Indeed, these authors advocated that during the construction of fictional narratives, mothers tend to control the interaction by assuming

the role of the main narrator, while children adopt the posture of the audience. Conversely, during the construction of autobiographical narratives, given that these conversations are centered on their personal experiences, mothers tend to promote children's participation and their role as a primary author (Melzi et al. 2011).

In our study, the differences in the mothers' narrative support across the narrative tasks are particularly evident if we consider the individual categories of the elaborative dimension. We found that mothers used elaborative statements more in the fictional context, while in the autobiographical contexts, they mainly employed elaborative questions (namely open-ended and close-ended questions). As Haden et al. (2009) suggested in their work, these differences in the narrative support may reflect, on the one hand, the adoptive mothers' tendency to tell the story to their children when they are both involved in the co-construction of a fictional narrative. On the other hand, it may reflect the adoptive mothers' tendency to engage their children in the co-construction of an autobiographical narrative. Interestingly, in our study, the mothers stimulated their children's participation differently even in the two autobiographical narratives. More specifically, mothers used more close-ended questions in the unshared child's events task, and more open-ended questions in the shared events task. It seems that, in the unshared child's events

task, mothers frequently asked “yes/no” questions in order to elicit more information and help structure the narrative, thus aiding their children in recalling the event.

Besides these differences in the adoptive mothers’ narrative support across the three narrative tasks, we found that they consistently used the elaborative dimension more than the repetitive dimension during the construction of both autobiographical and fictional narratives. This finding is consistent with what was found by some other researchers, such as Crain-Thoreson et al. (2001), Reese and Fivush (1993), and Tompkins and Farrar (2010). These empirical findings suggest that their narrative support in the co-construction of the different narrative types was mainly elaborative, although there was also some repetitive exchange. In this regard, according to Wenner et al. (2008), the elaborative dimension exists in a continuum, and our results suggest that mothers can be both elaborative and repetitive to some degree throughout the construction of a narrative. This indicates that these dimensions of the maternal narrative support are not antagonistic, but rather complementary. In fact, when we analyzed the relationship between these two dimensions, we discovered that they were strongly and positively associated with each other in each narrative task. These results suggest that these dimensions are two interrelated components of the mothers’ narrative support and assume different functions in the mother–child co-construction of narratives.

It is therefore plausible that the narrative support of the adoptive mothers was composed of two complementary movements: expansion and focus. More specifically, the elaborative dimension seems to correspond to an expansion movement, i.e., through this dimension, mothers add new aspects about the topic. The repetitive dimension, meanwhile, seems to correspond to a focus movement, i.e., through this dimension, mothers delve deeper into some aspects of the topic. This pattern of narrative support may reflect the mothers’ narrative sensitivity to their children’s needs, because through these two movements, they can both structure and elaborate on an ongoing narrative. This not only fosters their children’s knowledge about the event but also encourages their engagement and contributions during the co-creation of a narrative around that event (Fivush et al. 2006; Haden et al. 2009; Melzi et al. 2011).

Our second hypothesis regarding children’s narrative participation (i.e., that they would participate more in the fictional task than the shared events task and least in the unshared child’s events task) was not confirmed. We instead found that children participated in the same proportion across the various contexts. This result may also be a reflection, as we stated earlier, of the efficacy of the mothers’ narrative support. This may be because through the complementary expansion and focus movements, they induced a similar level of narrative participation from the

children regardless of the nature of the task. It therefore seems that the mothers adjusted their support to their children’s zone of proximal development, also having into consideration the demands of the task (Reese and Cox 1999).

The second important issue analyzed in this study was whether children’s narrative participation could be predicted by their mothers’ narrative support, as well as by any adverse preadoption experiences and their language development. We specifically hypothesized that the mothers’ use of the elaborative dimension and the children’s time living in an institutional context would predict children’s participation in the three narrative tasks. First, analyzing the associations between the children’s related variables (i.e., early adverse experiences and language development) and their narrative participation, we found that children’s time living in an institutional context was significantly associated with their narrative participation in the fictional task. Second, regarding the linkages between the mothers’ narrative support (i.e., elaborative and repetitive dimensions) and the children’s narrative participation, concurrent associations were found in all the narrative tasks. More specifically, the mothers’ elaborative dimension proved to be positively correlated with the children’s narrative participation in the three narrative tasks. Moreover, the mothers’ repetitive dimension was also positively correlated to the children’s narrative participation during the unshared child’s events task and the fictional task.

The results of the hierarchical regression model helped to clarify these findings. In the final step of the model, the mothers’ use of the elaborative dimension emerged, as we expected, as a significant predictor of children’s narrative participation during the autobiographical tasks (i.e., shared events task and unshared child’s events task), indicating that children tended to participate more in the construction of these narratives when their mothers used the elaborative dimension more. In the unshared child’s events task, in addition to the mothers’ use of the elaborative dimension, children’s sex emerged as a marginal predictor, with girls tending to participate more than boys in narratives that focused on their own past experiences. In the fictional narrative task, surprisingly, the variable that significantly predicted children’s narrative participation was the mothers’ use of the repetitive dimension, with language development also emerging as a marginal predictor. In this task, therefore, children tended to participate more in the co-construction of the story when their mothers used the repetitive dimension more and when they were more developed in terms of language.

As stated earlier, these results illustrate the importance of the complementarity movements in the maternal narrative support for the children’s participation. On the one hand, the mothers’ elaborative dimension as a predictor of

children's participation in the autobiographical tasks emphasizes how the expansion movement can foster children to participate in the construction of their past events. On the other hand, the mothers' repetitive dimension as a predictor of children's participation in the fictional task highlights how the focus movement during a complex narrative activity can help children to participate, even when they present less competence in doing it. More specifically, as we stated previously, the repetitive dimension in the fictional task can be a tool for mothers to help their children to engage their attention on the narrative. Assuming the repetitive dimension as a focus movement, it is possible therefore that this dimension of the mothers' narrative support played an important role in enhancing children's attention and participation, especially during the construction of a very challenging narrative task, like this study's fictional task (possibly due to the length of the book and complexity of its images). So, it seems that the mothers assumed the authorship role in this task because they knew their children would have difficulty in participating in the co-construction of this task, indicating once again their sensitivity to their children's needs. Specifically, in the fictional task, language development emerged as a marginal predictor. This result may also be due to the challenging nature of this task for the children, suggesting that ones with weaker language competencies had more difficulty in participating in its construction. By using the repetitive dimension, the mothers sought therefore to help their children, even those with greater language difficulties, to participate more throughout the narrative construction (Tompkins and Farrar 2010).

In addition, the results of the hierarchical regression model showed that the influence of the characteristics of maternal narrative support may actually overlap with the influence of early aspects of children's lives, namely the time spent in an institutional context, in explaining their performance in the narrative co-construction. This empirical finding, if consistently supported in future studies, is highly promising because it supports the benefits of an intentional narrative interaction, one that can mitigate individual difficulties and promote children's narrative expertise. In fact, this positive effect of mothers' narrative support has been documented in previous intervention studies that have highlighted the benefits of mothers' use of elaborative dimension for the narrative skills of children, both with and without language impairments (e.g., Boland et al. 2003; Crowe et al. 2003; Dale et al. 1996).

It is important to note, however, that the absence of any significant impact of the children's preadoption experiences on their own participation should be examined further in future studies, since the pernicious impact of these experiences may emerge during other developmental phases. Although our results are consistent with other investigations

in the field of adoption research (e.g., van den Dries et al. 2009), which indicate that children catch-up in different developmental domains (physical, mental and socio-emotional) after severe adversity in early life, a more detailed analysis of preadoption risk factors, especially the time living in an institutional context, would provide a better understanding of this matter. The overall results of this study, however, support the importance of the mothers' capacity to adjust their interactions to their children's narrative participation needs and also to the particular characteristics of the narrative context.

Limitations

This study has some methodological limitations that should be acknowledged. First, the small and homogeneous sample, with respect to the children's age and the adoptive families' socioeconomic levels may have had an important influence on the mothers' narrative support and their children's narrative participation.

Second, the narrative variables of the mothers and children were assessed concurrently, making it difficult to establish the influence of each variable independently and thereby limiting the interpretation of these results. Future research may therefore benefit from experimental and longitudinal designs in order to thoroughly understand the dynamics and influences that occur between mother and child throughout a child's development. Such studies are especially important in the case of adoptive mother–child dyads, because the role of the mothers' narrative support (an aspect strongly associated with the children's positive development and psychological well-being) as a protective factor and its influence on the children's narrative skills can be examined throughout the lifespan. Conducting longitudinal studies could therefore shed light on these issues and move the mother–child narrative interaction field forward.

Third, the difficulty level of the different narrative tasks (autobiographical vs. fictional) was not controlled, which may have influenced the narrative production of the dyads. Indeed, the book selected for the fictional task, due to its length and complexity, may have acted as a scaffolding for the mothers' role and consequently influenced their narrative support for the children.

Fourth, the absence of a control group prevented a direct comparison of the data with that for biologically related dyads. Future studies should therefore include a control group, which will then hopefully allow more sustained conclusions about the similarities and differences between adoptive dyads and biological dyads.

Finally, considering the scarcity of empirical research about adoptive families in the narrative co-construction field, it would be interesting to include other children's

variables (e.g., temperament, attachment patterns, etc.) and parents' variables (e.g., fathers' narrative scaffolding role, maternal sensitivity, parenting styles, etc.) in order to obtain a thorough picture of the narrative interaction not only in these dyads, but also in these families.

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Author Contributions MS designed and executed the study, assisted with the data coding and analyses, and wrote the paper. MH collaborated with the design, data analyses and writing of the paper. MG collaborated in the writing of the paper and editing of its final version.

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Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. The ethical approval was provided by the Faculty of Psychology and Sciences of Education of University of Porto.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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