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Becoming a teller of tales: Associations between children's fictional narratives and parent-child reminiscence narratives

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Abstract

Previous research has revealed a connection between the contributions parents make while reminiscing and their children's narratives for personally experienced events. The present research expands the literature by focusing on the connection between parental reminiscing and children's production of fictional narratives. Four- to 9-year-olds and their parents reminisced about past shared events and then, with an experimenter, the children produced narratives based on wordless picture books. The results revealed that the overall quality of the fictional narratives was correlated with parents' provision statements that emphasized orientation and evaluation in the reminiscence narrative. For younger children, correlations held for reminiscence narratives about recent events. For older children, correlations held for reminiscence narratives about events from the distant past. The results are consistent with the suggestion that children learn general storytelling skills from adult models.

In forms ranging from myths to memoirs, all cultures that have been studied value storytelling in some form. However, rather than there being "born storytellers," storytellers appear to be made within a social and cultural context (Peterson & McCabe, 2004). One influential place children learn about storytelling is in conversation with adults, particularly conversations with parents about past events. Within these conversations, children learn to structure stories about their own lives (Fivush, Haden, & Reese, 2006; Peterson & McCabe, 2004). Indeed, a growing literature shows that the conversational style parents adopt during reminiscence is related to what and how much children remember about past events (see Fivush et al., 2006 for a review). Moreover, aspects of parents' conversations about past events are related to children's memory for fictional narratives (e.g., Lange & Carroll, 2003). This indicates that reminiscing with parents provides a training ground for children to learn general narrative skills, not just those specific to autobiographical narratives. If this is the case, parents' contributions in conversations about past events should be associated with children's ability to produce fictional

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stories in addition to their ability to remember these stories. In the present research we examined what types of information parents include in their narratives about past personally-experienced events and whether these provisions are related to their children's storytelling abilities. We also consider other factors that may modify this relation, namely the child's age and the time-frame of the past event.

The stories children tell are predictable from their parents' personal narratives, both in terms of the parents' overall story-telling style and the specific content they include in their stories. Researchers consistently have found that the overall style of parents' personal narratives can be characterized with respect to two general patterns (Fivush et al., 2006). In the first, termed "high-elaborative," the parent follows topics that the child introduces, provides embellishment on points raised, asks open-ended and *Wh-* questions, and encourages the child's continued conversation. In contrast, the parent using a "low-elaborative" style provides fewer embellishments, asks yes-no and repetitive questions, and tends to switch topics frequently. McCabe and Peterson (1991) describe two styles similar to high elaborative and low elaborative that they term "topic-extending" and "topic-switching," respectively. It should be noted that elaborativeness exists on a continuum: all parents are elaborative to some degree and on some occasions, but some are consistently more highly elaborative and some are less so. These conversational styles have been linked to children's memory in consistent ways. Children of mothers with a high-elaborative style recall more about personal life events than children of mothers with a low-elaborative style (Reese, Haden, & Fivush, 1993), both at the concurrent time point and also in future conversations. Parents who use a topic-extending approach when reminiscing with their children at approximately age 2.5 years have children who tell more sophisticated stories to an experimenter one year later (Peterson & McCabe, 2004) and are more expansive story tellers (McCabe & Peterson, 1991).

The literature also shows evidence of bidirectionality between parents' and children's narrative contributions. Farrant and Reese (2000) found that the attentiveness and interest that an 18-month-old shows in the reminiscence task predicts her or his mother's memory question elaborations, which in turn predicts the child's memory elaborations at age 2.5 years. McCabe and Peterson (1991) argued, however, that the direction of effect is stronger from parent to child than child to parent. Experimental work furthers the argument that the types of contributions parents make during reminiscence directly influence their children's narrative performance. For example, studies in which mothers were instructed in use of components of an elaborative style (e.g., open-ended questions, associations, positive evaluations) yielded higher rates of recall from the children (Boland, Haden, & Ornstein, 2003) and longer personal narratives that were richer in temporal and spatial context-setting (Peterson, Jesso, & McCabe, 1999) compared to children of uninstructed mothers.

In general, parents using an elaborative style encourage their children to expand upon the topic at hand. However, two parents can be similarly elaborative and yet emphasize very different types of information (Peterson & McCabe, 2004) or differ in their support of the children's autonomy (Cleveland & Reese, 2005). What children hear in these conversations influences what they include in their own narratives. Indeed, Peterson (1990) says, "This scaffolding provides a teaching format that shows the child what should be included in a narrative" (p. 453). For example, if a parent typically emphasizes contextual orientation information (the who, where, and when of the story), the child's personal narratives are likely to show the same. In contrast, if the parent typically emphasizes what happened in an event, the child is likely to do so as well (Fivush, 1991; Peterson & McCabe, 2004). Given that orientations and evaluations (the why and how of the story) are the "crux of personal narratives" (Haden, Haine, & Fivush, 1997, p. 303), children who regularly hear these narrative elements would be expected to be better story-tellers themselves.

The research on the production of narratives based on personally-experienced events strongly suggests that children learn from parents' modeling how to share stories with others. There is some evidence that this narrative apprenticeship is general to storytelling, extending beyond reminiscence to recall and production of fictional stories. Reese (1995) found that mothers' increasing provision of associated information in parent-child conversations across a 40- to 58-month age span predicted children's 70-month story production performance, and mothers' increasing associated information and elaborations predicted the children's story comprehension. In keeping with the argument proposed by Snow (1983, 1991), Reese concluded that exposure to decontextualized language about the there-and-then scaffolds children's ability to tell and understand narratives.

Further studies show evidence that discussions about fictional stories impact children's memory for those narratives. In studies by both Clarke-Stewart and Beck (1999) and Low and Durkin (2001), 5-year-old and 6-year-old children, respectively, and their mothers watched clips of televised stories together and then the children recalled the story. In Clarke-Stewart and Beck's experiment, half of the dyads discussed the clip after viewing. Compared to a control group who did not discuss, children who had discussed the clip later gave more complete retellings to an experimenter. Examining the individual differences within the discussion group, the completeness of the children's recall was related to the extent that their mothers' directed attention to the task, corrected mistakes, and encouraged extended exchanges on one topic. Low and Durkin also found parental conversations about fictional stories to be associated with recall of the story. Mothers and their 6-year-old children watched a televised story, discussing it while watching, and then the mothers elicited recall of the story at three time points, each separated by four months. As reflected in concurrent and cross-lag correlations, mothers' degree of elaborativeness was positively correlated with the children's recall of the story in both the current session and future sessions. These studies indicate that in children at least as old as 6 years, memory for fictional stories is related to the kinds of narrative conversations they hear from their mothers.

Lange and Carroll (2003) argue that children "carry" their mothers' style of telling stories about past events to other story and memory tasks. Specifically, mothers' use of "narrative" rather than "paradigmatic" utterances in conversations with their preschoolers about picture books was correlated with the extent to which preschoolers included narrative contributions (that is, interpretive and evaluative comments, in contrast to paradigmatic comments that were primarily descriptive) in the conversation. In turn, 3- and 4-year-olds' who had higher levels of narrative talk recalled more of a fictional story, but performed more poorly in a memory task for object locations. Children with higher levels of paradigmatic talk showed the reverse pattern (that is, they remembered less of the story, but more object locations). Overall the patterns were the same but weaker in 5- and 6-year-olds.

In summary, both theory and data suggest that narrative skills are learned in a community of storytellers. As Lange and Carroll (2003) comment, the style parents adopt in conversation with their children provide them "with conceptual frames that affect understanding and memory for new objects and events experienced independently" (p. 452), providing support for an internalization hypothesis. As children share narratives with more proficient story tellers (mostly mothers have been studied in this literature so far) they get a model for how to structure and what to include in stories. They "internalize and use as their own" (p. 452) the narrative model, using it to recall personal past experiences as well as independent fictional narratives. It follows from this hypothesis that the narrative devices parents use in conversation about past events should predict children's narratives skills not only in the context of these same conversations (as has been shown in past studies), but also to their ability to tell stories more generally.

In this study we addressed four questions. First, as the internalization hypothesis would suggest, do the contributions parents make while sharing stories with their children about past events relate to the children's ability to tell fictional stories independently? To determine whether the children's own language proficiency moderates any association found between parent and child narrative tasks, we obtained productive language scores from the children. Second, what kind of parent contributions are related to children's story telling? Describing *what* happened in an event is a necessary foundation for story telling, but good stories go beyond *what* happened to provide for the listener orientation information (*who*, *where*, and *when*) and evaluation (*how* and *why*) (Haden, et al., 1997; Peterson, 1990; Stein & Albro, 1997). The provision of these types of information in personal narratives by both the child and parent changes with the child's age: Children's use of orientations increases steadily from age 3 to age 7 years (Peterson, 1990). At age 3 *what* happened predominates children's narratives, *who* and *where* become more visible later in the preschool years, and *when* and *why* are more commonly included in the narratives of children in the early school-age years (Menig-Peterson & McCabe, 1978; Peterson & McCabe, 1983). Parents' use of causal language (*why*) gradually increases as well, being quite rare when their children are 3 years old and more common when they are 5 years, often appearing several months before the children's first use of causal language (Peterson & McCabe, 2004). Mothers' use of orientations and causal language when their children are approximately 3 years old has been found to be correlated with the children's use of the same up to 2.5 years later (Fivush, 1991; Haden et al., 1997). In light of these patterns of language use, we examined whether parents' use of *who*, *what*, *when*, *where*, *why*, and *how* in a reminiscence task was associated with the overall quality of their children's fictional stories.

Third, are the patterns of correlations the same for older and younger children? Much of the prior research focused on preschoolers, with some studies including children up to age 6 years. In the present study the youngest participants were preschoolers and we extended the investigation upwards in age to 9 years. The ability to tell fictional stories is limited in 4-year-olds and improves steadily for the next several years, with 9-year-olds demonstrating many of the narrative devices used by adults (Trabasso et al., 1992; van den Broek, 1989). On the one hand, if the parent-child conversation is indeed a training ground to learn how to tell stories, then we would expect to continue to see correlations between the parent contributions and the children's narrative skills beyond the preschool and into the school-age years. Conversely, as children enter formal schooling they experience many more influences on their narrative skills and it is possible we may see stronger parent-child correlations in the younger than the older children. There is evidence supporting both hypotheses: Lange and Carroll (2003) found that correlations between parent narrative contributions and child memory for fictional narratives weakened with age, but in investigating personal narratives, Reese et al. (1993) found that they strengthened with age. With respect to fictional stories the matter clearly is not settled, and a sample of children spanning this important age range is a major contribution to the literature.

Fourth, the reminiscence literature has demonstrated that the recency of the event being discussed changes the contributions of both parents and children, but has yet to examine whether patterns of associations between parental support and children's independent narrative skill are impacted by how long ago the discussed event occurred. Although there tends to be consistency in what the partners provide when conversing about distant relative to recent events, both parents and children tend to provide more details when discussing events from the recent past (because they remember them better), and parents ask more questions when discussing events from the distant past (because the children remember these events less well) (Fivush, Haden, & Adam, 1995; Van Abbema & Bauer, 2005). In the present study, therefore, we examined how the patterns of correlations between reminiscence narratives and fictional narratives would differ for distant versus recent events.

Method

Participants

Eighty-three children (38 girls) ages 4 years, 8 months to 9 years, 2 months participated in the study with a parent (two children were accompanied by their fathers, the rest by their mothers). The families were predominantly Caucasian and of middle socioeconomic status. The data of focus in the present study were collected during the last session of a larger longitudinal study of memory development. All activities took place in a university laboratory. The children were originally enrolled in the study at approximately 1 year of age and were seen in the laboratory four times between 13 and 32 months of age. During these four sessions the children's memories for multi-step prop-supported event sequences were assessed in an elicited imitation task (Bauer, Wenner, Dropik & Wewerka, 2000). The fifth session took place when the children were approximately 36 months old and involved elicited imitation tasks (e.g., Bauer, Wenner, & Kroupina, 2002) as well as a parent-child conversation about six shared events that had occurred one to six months prior to the fifth testing session (Bauer & Burch, 2004). The sixth and last testing session took place when the children were between the ages of 4 years, 8 months and 9 years, 2 months and is the subject of the present report. All children were tested individually in sessions lasting approximately one hour. The children were given small gifts and parents received pairs of movie tickets for their participation.

Preparation for the Parent-Child Conversations

Children discussed a total of seven events, some of which had occurred prior to their fifth visit to the laboratory (when they were 36 months of age) and some of which had occurred in the more recent past. Prior to the family's arrival at the laboratory, brief synopses of the events discussed during the 3-year-old visit were recorded on notecards to cue the parents about the events from the distant past. For example, one dyad discussed an event in which firefighters came to the child's preschool class; the relevant synopsis stated, "They came in a fire engine and put on their big yellow jackets. Your friend was scared of their masks." The synopses were relatively parallel across children and events and whenever possible general descriptions rather than specific details were included. The dyads discussed as many as four of these distant events with the constraint that they discuss only those events the parents could remember. Recent events were taken from those that parents were asked to record briefly on notecards upon their arrival at the laboratory. They were relatively unique events they had shared with their children in the prior one to six months.

Procedure and Materials

During the sixth session children were seen in the laboratory by one of four female graduate students. To ensure standardization across the experimenters, the four experimenters were instructed in a detailed protocol and regularly viewed one another's testing sessions. The sessions were videotaped in their entirety for future transcription. The session began with a brief warm-up period during which the experimenter chatted with the child and the parent completed the informed consent form. Explicit assent was obtained from the children who were 8 years old or older.

The first two tasks in the session are not described in detail because they are not considered further in the present study. The first was an elicited imitation task designed for preschool and school-age children and the second was a story recall task in which the children heard a story based on a wordless picturebook and then provided free recall of the story. Details of these tasks can be obtained from the first author upon request.

Story production task—Following the elicited imitation and story recall tasks, the children engaged in a story production task. They were shown one of two wordless picturebooks and

asked to look through the pictures, “thinking of a story in your head.” Whether the child engaged in the story production task or the story recall task first was counterbalanced. The picturebooks were based on those used by Wenner (2004). Based on previous research (van den Broek, 1988), the pictures in each book supported the telling of a coherent story with an initiating event, character goal, attempts towards that goal and an outcome. One book was about a boy whose pet frog runs away and the other about a girl whose magic ball goes missing. The books contained ten simple colored line drawings collated into a 3-ring binder. Which book the child saw in the story production and story recall tasks was counterbalanced. After looking through the pictures once, the children turned the pages again, telling their stories as they went. During the task the experimenters provided supportive statements and general prompts such as “OK,” and “Anything else?”, respectively.

Parent-child conversation—After the story production task the experimenter excused herself from the room for the parent-child conversation and observed from a darkened room behind a one-way mirror. There were no time constraints on the parent-child conversation part of the session, and parents were told to discuss the events “naturally, as they might at the breakfast table or in the car.” All of the children and their parents first discussed one shared event from the recent past, drawn from those the parent had nominated at the beginning of the testing session. After this conversation 44 of the children discussed the remaining two recent events and all four of the events from the distant past with the experimenter while the parent waited in an adjoining room. The data from the experimenter-child conversations are not considered in the present study. The other 39 children continued the conversation with their parent, discussing the remaining recent events and all of the events from the distant past. Thus, 44 dyads discussed recent events only and 39 dyads discussed both recent and distant events. Assignment to the additional parent-as-partner or experimenter-as-partner conversations was random. The experimenter returned to the room when the parent-child conversation was complete.

Woodcock-Johnson Language Inventory—At the end of the session the children’s language was assessed using the Picture Vocabulary subtest of the Woodcock-Johnson Language Inventory (Woodcock, 1991).

Coding

The content of the parents’ utterances in the parent-child conversation was coded using a scheme adapted from the existing literature (Fivush, et al., 1995; Haden, et al., 1997; Kleinknecht, 2000) that has been used with a subset of the present sample (Van Abbema & Bauer, 2005). Using this scheme, utterances were assigned one or more of the codes described in Table 1. Note that the category labeled *why* refers to a focus on causal connections in the event and therefore could be applied to either statements (“You cried *because* you skinned your knee”) or questions (“*Why* did we have to leave the party early?”)

Coders were trained against an existing corpus of transcripts until they achieved 85% reliability on three consecutive transcripts. Then the parents’ utterances in the parent-child conversation were coded by one member of this team of trained coders. Twenty-five percent of the transcripts (equally distributed across child gender and age) were re-coded for reliability purposes. Overall coding agreement was 86.7% with a range of 73.5–98.6%. All discrepancies between the two coders were resolved through discussions between the coders and a third experienced coder (the first author). The interrater reliabilities found are fairly typical for this type of coding scheme (e.g., Boland, Haden, & Ornstein, 2003; Lange & Carroll, 2003).

The children’s story productions were judged for their overall quality on a 5-point ranking scale reflecting use of increasingly sophisticated narrative devices (Table 2). The coding

scheme was based on that developed by Stein and Albro (1997). The least sophisticated stories were descriptions of the pictures. Increasingly sophisticated stories contained temporal connections, causal language, references to character goals, and goal-motivated actions and resolutions. Two independent coders coded the children's narratives, overlapping on 27% of the sample for reliability purposes (approximately evenly distributed across age and gender). The coders assigned the same quality score on 91% of the reliability narratives. For the two narratives on which they disagreed they came to agreement through discussion. These reliability levels are in line with what has been reported by other authors (e.g., Allen, Kertoy, Sherblom, & Pettit, 1994; Ilgaz & Aksu-Koç, 2005).

Results

Preliminary Analyses

Our overall goal in this study was to determine what relations exist between parents' contributions in a reminiscence task and the quality of the fictional stories their children produce independently. Before proceeding to the main analyses, steps were taken to understand how any such relations might be affected by the age, gender, and linguistic skill of the children. We looked for evidence that child variables moderated the patterns of parent-child associations found.

We expected that the patterns of associations between the parent and child variables would differ for older and younger children. Dividing the sample into those younger than 7 years and those 7 years and older seemed the best course of action for both pragmatic and conceptual reasons. Pragmatically, dividing the sample at age 7 resulted in a median split with the age spread in the two groups being approximately 2 ¼ years. Conceptually, the stories told by a child approximately 6 years old are quite a bit less sophisticated than those of a child approximately 8 years old (Trabasso et al., 1992). Also, formal schooling brings many new influences to bear on children's narrative skills (Paris & Paris, 2003). With one exception, the children in the younger group had not yet entered the first grade, and with two exceptions those in the older group had. In addition to the analyses conducted separately for younger and older children, all analyses reported in the following sections were repeated, partialing out child age. The pattern of results in this second set of analyses were identical to those using the simple correlations and so just the simple correlations are reported.¹

To judge whether gender of the child played a moderating role in any of the analyses of the parent and child variables, two steps were taken. First, we conducted independent samples *t*-tests on the children's performance in the story production task and the parents' contributions in the parent-child conversation. The only comparison that approached significance was the parents' use of causal terms, used marginally more often with girls ($M = .57$) than with boys ($M = .29$) ($t(81) = -1.73, p = .09$). Second, the patterns of correlations between the parent and child variables were the same for girls and boys. For these reasons, the analyses are reported collapsed over child gender.

Finally, to assess whether the children's linguistic proficiency played a role in the parent or child narrative behavior, correlational analyses were conducted on the children's scores on the Woodcock-Johnson picture vocabulary task, the overall quality of the fictional stories they produced, and the parents' use of *who*, *what*, *when*, *where*, *why*, and *how* in the parent-child conversation (both for the whole sample in the first new event and in the distant events for those dyads who discussed distant events). For the younger children, parents' use of *what* in

¹To further ensure that the span of ages within each age group was not too extreme, all analyses were repeated while eliminating the youngest and oldest 10% on either end of the sample. The pattern of correlations found for these analyses are the same as for the sample as a whole.

recent events was marginally positively correlated with the children's vocabulary scores ($r = .35, p < .06$). For the older children the opposite was true: parents' use of *what* in recent events was significantly negatively correlated with the children's vocabulary scores ($r = -.41, p < .01$). No other significant correlations with child language were found. For the data to be reported in the next sections, all analyses were repeated partialing child language scores out of the correlation. No differences in the main analyses were found and so the correlations are reported without regard to child language.

Associations between Parent Contributions in the First Recent Event Discussed and Child Independent Story Production

Because all dyads in the sample discussed at least one event from the recent past, the analyses reported in this section focus on just the first recent event discussed.² Separately for the younger and older age groups, Spearman rank-order correlations were used to assess any association between the parent variables, separately for their statements and their questions, and the overall quality of the children's independent story production. Pearson correlation coefficients were calculated to reveal the degree of intercorrelations within the parent variables. The results of these analyses for parents' statements are shown in Table 3. For the story quality variable in the younger age group, significant correlations emerged with parents' use of the *what*, *when*, *where*, and *how* categories. No significant correlations were evident between the parent statements and the older children's story quality scores. The parent statements were highly intercorrelated, particularly for the younger age group. Only one significant correlation emerged between the parent questions and child story performance: Parent questions about *what* happened were correlated with child story quality ($r = .31, p < .04$) in the younger age group.

To determine which if any of the parent variables explained unique variance in the younger children's narrative performance, regression analyses were conducted in which the children's performance in the story production task was the dependent variable and parent variables from the parent-child conversation were the predictor variables. Only parent variables that had emerged as significant in the Spearman rank-order correlations (i.e., statements about *what*, *when*, *where* and *how* and questions about *what*) were used in the regression equations. As shown in Table 4, the overall quality of the children's story productions was uniquely predicted by their parents' emphasis on *how* the event discussed in the parent-child conversation was perceived.

Because of the degree of intercorrelation between the parent variables, it is possible that having a parent who merely talks a lot is associated with higher quality story performance and the specific kinds of contributions the parent makes is less important. To test for this possibility, a "talkativeness" composite variable was created, summing all of the parent contributions except those that comprise *how* (in order to have a talkativeness composite independent of the *how* variable). Regression analyses were again conducted on child story quality, entering the talkativeness variable into the equation first and then the *how* category. The results reveal that parents' emphasis on *how* an event unfolded still was of importance ($\beta = .79, p < .003$) and not simply how much the parent talks ($\beta = -.22, ns$).

²The children from dyads who discussed several recent and distant events did not differ from one another in terms of their language scores or performance in the independent story production task. In the parent-child conversation the parents who discussed only one past event provided more *what*, *when*, and *how* information ($M_s = 17.79, 4.11$, and 11.70 , respectively) than those who discussed several past events ($M_s = 10.44, 1.92$, and 6.21 , respectively) (all $t_s(81) > 2.61, p_s < .01$). This is perhaps not surprising: Those dyads who knew they would discuss only one event tended to linger, saying more about it.

Associations between Parent Contributions in Discussions of Recent and Distant Events and Child Independent Story Production

We first examined differences in parents' statements and questions in recent and distant events in the parent-child conversation in the older and younger age groups (analyses based on $N = 39$). To do so we performed separate 2 (age group: younger, older) $\times$ 2 (event type: recent, distant) mixed-factor analyses of variance on the parents' total numbers of statements and on their statements in each of the categories *who*, *what*, *when*, *where*, *why*, and *how*. Age group was the between-subjects factor and event type was the within-subject factor. The data are displayed in Panel A of Figure 1. For the total numbers of statements parents provided an Age group $\times$ Event type interaction was obtained, $F(1, 37) = 6.92, p < .01, \eta^2 = .16$. Paired samples *t*-tests comparing recent to distant events separately for the older and younger ages revealed that parents of the older children made more total statements in distant events ($M = 23.94, SD = 8.85$) than the recent events ($M = 17.65, SD = 7.54$), $t(16) = 3.04, p < .01, d = .77$. For the younger children, the difference between total statements in distant and recent events was not significant, but if anything the effect was in the opposite direction. An Age group $\times$ Event type interaction was also obtained for the category *what*, $F(1, 37) = 16.20, p < .001, \eta^2 = .30$. Follow-up analyses revealed that parents of the older children made more *what* statements in distant events ($M = 10.56, SD = 4.38$) relative to recent events ($M = 3.87, SD = 2.05$), $t(16) = 6.50, p < .001, d = 1.96$. Finally, there was a main effect of event type for the category *when* such that parents made more comments about the timing and sequence of activities when discussing recent events ($M = 1.89, SD = 1.48$) relative to distant events ($M = 1.32, SD = 0.73$), $F(1, 37) = 4.55, p < .04, \eta^2 = .11$.

To examine parent questions we conducted separate 2 (age group: younger, older) $\times$ 2 (event type: recent, distant) mixed-factor analyses of variance on the parents' total numbers of questions and on their questions in each of the categories *who*, *what*, *when*, *where*, *why*, and *how*. Age group was the between-subjects factor and event type was the within-subject factor. The data are displayed in Panel B of Figure 1. Overall, for both age groups, parents asked more questions when discussing recent than distant events. There were main effects of event type for total number of questions asked (recent: $M = 6.42, SD = 4.89$; distant: $M = 2.52, SD = 1.89$), $F(1, 37) = 22.54, p < .001, \eta^2 = .38$; questions about *what* (recent: $M = 3.30, SD = 3.20$; distant: $M = 1.09, SD = 1.09$), $F(1, 37) = 16.13, p < .001, \eta^2 = .30$; questions about *where* (recent: $M = 0.76, SD = 0.67$; distant: $M = 0.27, SD = 0.34$), $F(1, 37) = 10.05, p < .003, \eta^2 = .21$; questions about *why* (recent: $M = 0.16, SD = 0.28$; distant: $M = 0.04, SD = 0.11$), $F(1, 37) = 5.80, p < .02, \eta^2 = .14$; and questions about *how* (recent: $M = 1.26, SD = 1.31$; distant: $M = 0.49, SD = 0.66$), $F(1, 37) = 14.38, p < .001, \eta^2 = .28$. Parents of younger children asked more questions about *how* ($M = 1.11, SD = 1.27$) than did parents of older children ($M = 0.58, SD = 0.75$), $F(1, 37) = 4.15, p < .05, \eta^2 = .10$.

We next wished to evaluate whether the patterns of correlations between parent contributions and the children's story production quality varied for reminiscence conversations about recent relative to distant events. These analyses were conducted on the parents' average contributions in the recent and the distant events for those 39 dyads who discussed several recent and distant events. Spearman rank-order correlations were performed on the children's story quality data and the parent variables, separately by age group, for statements and questions, and for the recent and distant events. Results of these analyses for statements are found in Table 5 for the younger age group and Table 6 for the older age group. For the younger children, parents' use of *how* and *when* statements in recent events correlated with overall fictional story quality. No significant correlations were found between the child performance and parent distant event narratives. For the older children, the opposite pattern was found: No significant correlations were found with the recent event narratives, but in the distant event narratives parents' statements about *when*, *where* and *why* was associated with higher quality child stories.

Because of the smaller sample sizes it was not advisable to subject the data to regression analyses in addition to the correlational analyses. It is important to note that in the younger child dyads parents' use of *when* and *how* were highly correlated ($r = .84, p < .001$) and so at present it is not possible to determine whether these two variables represent separate or entirely overlapping constructs. For the older children, *when* and *where* were correlated ($r = .57, p < .01$) but *why* was not correlated with either of the other two categories. Therefore it is not clear the degree to which *when* and *where* explain unique variance in the quality of the children's stories, but one can be reasonably confident that parents' use of *why* information while reminiscing about events from the distant past uniquely contributes to the variability in children's fictional stories.

In the younger age group, three types of parent questions were associated with child story quality. Questions about *what* happened and *when* in the recent events were positively correlated with child story quality ($r = .66, p < .001$ for *what* and $r = .49, p < .02$ for *when*). In the distant events parents' use of *why* questions was negatively correlated with child story quality ($r = -.46, p < .03$). It should be noted, however, that the frequency of *why* questions in the distant events for this age group was extremely low (out of 22 parents, three asked one *why* question and one parent asked two).

Discussion

In the current research we examined whether the quality of children's independent production of fictional narratives is related to the content of their parents' reminiscences about events from the recent past (available on the full sample) and distant past (available on a subset of the sample). Previous research established links between parent reminiscence and two types of child narrative: production of personally-experienced narratives and recall of fictional narratives (e.g., Fivush, Haden, & Reese, 2006; Lange & Carroll, 2003). The current research adds to that literature with evidence of links to children's production of fictional narratives. The patterns of parent-child associations differed by age of the child and whether the dyad discussed a recent or distant event. For children younger than 7 years, parents' emphasis on *how* a recent event unfolded was positively correlated with the quality of a fictional story the children told to an experimenter. For children 7 years old and older, parents who included more temporal and causal connections in their reminiscences about events from the distant past had children who told higher quality fictional narratives.

Under our coding rubric, a higher quality fictional story was one that went beyond basic descriptions to include temporal and causal connections, information about character goals, and one that connected ongoing actions of the story to those goals. Parents' reminiscence narratives showed a correspondence with the fictional narratives of their children. Of the parent content coded in this research, *what* provides descriptive information about the event, *who* and *where* provide orientation information, and *why* and *how* are explanations of (or questions about) causal links within the event and evaluations. As we defined it, *when* could capture either orientation information (e.g., the time of day) or sequencing information (e.g., a particular activity occurred before another activity), but in this study parents predominantly used *when* for sequencing. In general, parents who provided more evaluation, causality, and sequencing had children who told higher quality stories. In the older age group, parents who emphasized temporal and causal connections had children who also made causal connections between story actions and connected those actions to overall goals. For the younger children, parents' use of *how* and perhaps also *when* were associated with fictional story quality. There is little doubt that the younger children (who were 4–6 years old) were capable of comprehending narrative causality and temporality, although these capabilities are still developing (see van den Broek, 1997 for a discussion of comprehension of causality in narrative by preschool and school-age children). On balance, however, parents of the younger children

who emphasized the subjective experience of events (*how*) had children who told higher quality fictional stories.

It is noteworthy that many of the associations observed between parent and child variables were for parent statements rather than their questions. This pattern of results suggests that as children internalize an approach to storytelling, the information that they hear their parents provide in narratives serves as an important source of modeling. In other investigations mothers' elaborative questions have been the key predictor of children's level of recall for personal experiences (Cleveland & Reese, 2005; Farrant & Reese, 2000; Haden, 1998). There are at least three possible explanations for this difference found between our findings and others' finding regarding parent questions. First, it may be that parents' use of questions to elicit information has bearing on their children's autobiographical memory, but the information they provide is a more important correlate for their children's storytelling skills. Questions may serve as a cue for memory, cues that the children eventually internalize and apply to their independent memory reports. The few studies on parent reminiscence and child narrative skill (e.g., Low & Durkin, 2001; Reese, 1995) have credited both questions and statements as "elaborations" but have not separated out the two. The current data suggest that as they become storytellers themselves, children use as a model the information their parents include in their stories. Second, "questions" as they are used in the present research, and "elaborative questions" as they have been used by other researchers, are not necessarily interchangeable. For example, in Cleveland and Reese (2005) "elaborative questions" were "usually *wh*-questions containing at least one new piece of information about the event" (p. 381). In their example "What animals did we see at the zoo?" was coded as an elaborative question. Using the present coding scheme the same utterance would also be a question (a *question about what* for "What animals") and in addition would receive credit for the statements about "see [ing]" and "at the zoo." Seen in this light, the different patterns of correlations for statements in the present research and elaborative questions in other research are not incompatible. Third, it is possible that the lack of association between parent questions and child story performance found in the present study is due to a restriction of range in the parent questions. Parents asked on average a total of approximately five questions per event and therefore there simply may not have been enough variability in this sample for any correlation between questions and child story production quality to emerge.

From this correlational research of concurrent relations between parent and child, it is not possible to pull apart whether the children were influenced by their parents, the parents were responsive to their children's abilities, or some of both. It is highly likely that the influences are bidirectional, but experimental and longitudinal work by other researchers indicates the connection from parents to children is stronger than that from children to parents (Clarke-Stewart & Beck, 1999; Farrant & Reese, 2000; Lange & Carroll, 2003; Low & Durkin, 2001; Peterson & McCabe, 2004; Reese, et al., 1993). The implication is that children are apprenticed into the art of storytelling. While reminiscing with their parents, children experience a model of what story telling is about, they internalize that model, and they apply it to other types of stories they tell in other settings (see Lange & Carroll, 2003, and Nelson & Fivush, 2004, for similar arguments). When parents regularly include more sophisticated narrative elements in conversation with their children, the children get exposure to and practice with these important narrative devices. It becomes more likely, therefore, that they will bring similar complexity to what they provide in other narrative tasks. To determine the extent to which the parent-child correlations observed in the present research are parent-driven relative to child-driven, research is needed similar to that used in the parent-child reminiscence literature. Specifically, longitudinal studies would permit examination of the development of storytelling ability and the ways in which parent and child adjust their storytelling in response to one another. Experimental studies would reveal whether manipulations of the parent's

approach to reminiscing activities results in predictable changes in the child's storytelling abilities, as has been found for children's memory for personal and fictional narratives.

To ascertain whether the parent reminiscence-child narrative links found in the present work generalize to other types of parent narrative tasks, future research needs to examine parent contributions in book reading or other fictional narrative tasks. It is possible that adults possess a general style of story-telling, regardless of whether the story is fictional or based on personal experiences. If this is the case, then patterns of associations found in the present work should also be found between parent fictional stories and child story quality. As yet there is not extensive data to bear on this question, but some data (e.g., Reese, 1995) suggest that parent reminiscence narratives may predict child story performance better than parent book reading.³

The patterns of associations between parent and child were dependent not only upon the age of the child but also upon whether they discussed a distant or a recent event. Past research on parent-child conversations have tended to focus either on relatively recent events (e.g., within the previous several months) or on events from the distant past, but systematic comparisons of the two event types are rare. Therefore, finding differential associations for distant and recent events represent an important contribution to the literature. Recalling distant events provides a more challenging task for both the parent and the child, thus the examination of distant events may reveal different developmental trends than the examination of more recent events. For the older age group, child story performance was correlated with parent narrative contributions in distant but not recent event narratives. Examination of the transcripts reveals that it was not uncommon for the child to be "in the driver's seat" during the recent narratives. A parent might introduce a topic by saying, "*Remember last summer when you hit a home run in your last baseball game? Tell me about that.*" And then the child would take over. The give-and-take in these conversations was typically rich and lively, but the burden of sustaining the conversation did not fall to the parent or at least not to the parent alone. In contrast, the distant events were likely more difficult to retrieve for both parent and child, and so the parent had to take a much more active role in framing the conversation in order to elicit a narrative report from the child. Indeed, parents of the older children said more overall about distant events than recent events. For this particular age group, discussions of distant events may be especially revealing regarding parents' capacity to support their children's memory for and production of narratives. As a consequence, correlations with the children's fictional stories were obtained. It is compelling to find relations between the parents' and children's story performances at this age, given the many other influences on narrative ability, such as the formal instruction they receive in school. The study of narrative skill in school-aged children may be of particular importance given the link between these skills and academic achievement. For instance, there is emerging evidence that narrative skills predict reading comprehension (Paris & Paris, 2003; van den Broek et al., 2005), an essential skill for success during the school years and beyond.

For the children in the younger age group, recall of the distant events was understandably a quite challenging memory task. Again, examination of the transcripts showed that their parents made concerted efforts to shape the narrative and aid the children's retrieval. Nonetheless, these parents' contributions in the distant events were not correlated with the children's fictional stories. In contrast, as a platform for conversation, the recent events for the younger children may present a level of challenge analogous to the distant events for the older children. As a consequence, correlations with child narrative performance were obtained for the younger group's recent events and the older group's distant events.

³We thank an anonymous reviewer for raising this possibility.

In conclusion, we have provided evidence that children's performance in independent, fictional narrative tasks are reflective of the narrative performance of one of the most prominent adult models in their lives, a parent. We have extended past research on the apprenticeship of narrative abilities in three ways: First, we have shown that parents' participation in shared reminiscence narratives is correlated not only with children's memory for past events and previously heard stories but also with the quality of their children's independent fictional narratives. Second, the pattern of associations between parent and child are dependent upon the type of the reminiscence event discussed. Third, we have shown that associations between parent reminiscence contributions and child narrative performance can be found in school-age samples, as has been found in preschoolers. In doing so, we see across the preschool and well into the school-age years the partnership within which children become storytellers.

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Figure 1. Average numbers of parent statements (Panel A) and questions (Panel B) in distant and recent events.

Table 1

Content Codes Applied to Parent Utterances in the Parent-Child Conversation

Code	Description and example
Who	The first mention of an individual: " <i>Aunt Sara</i> met us at the zoo."
What	Objective descriptions and activities: "She <i>swam</i> at the water park" or " <i>There were twelve clowns</i> at the circus."
When	References to time or placing events in temporal order: "We went camping <i>last summer</i> " or " <i>First</i> we had lunch and <i>then</i> we went to the movie"
Where	Details about where an event occurred: "He climbed <i>into a tree</i> ."
Why	Causal information: "You cried <i>because</i> you skinned your knee."
How	Subjective details and internal states that convey how the event was perceived: "The roller coaster was <i>really scary</i> !" or "I was <i>happy</i> to get a present in the mail."

Table 2

Quality Codes Applied to the Children's Narratives Produced in the Story Production Task

Code	Description
Descriptive Sequence	Describes actions, scenes, and characters
Action Sequence	Indicates temporal sequence of events through terms such as "first," "then," and "next"
Reactive Sequence	Indicates causality between events through terms such as "because"
Incomplete Episode	Refers to a goal of the main character
Complete Episode	Refers to an initiating event, a goal, attempts to achieve the goal, and how the goal was/was not achieved

Note. Categories are listed from the least sophisticated (descriptive sequence) to the most sophisticated (complete episode).

Table 3
Spearman Correlations among Child Story Quality and Parent Statements in the First Recent Parent-Child Conversation for the Younger and Older Age Groups

Narrative Measures	Child Story	P-Who	P-What	P-When	P-Where	P-Why
Younger Age Group (N = 42)						
Child Story Quality	-.10					
Parent Who	.48***	-.51***	-.71***			
Parent What	.47**	.35***	.80***			
Parent When	.50***	.52***	.65***			
Parent Where	.24	.12	.41**		-.41**	
Parent Why	.53***	.47**	.84***	.68	.84***	-.47**
Older Age Group (N = 41)						
Child Story Quality	-.07					
Parent Who	-.08	-.21	-.65***			
Parent What	.06	.36*	.54***			
Parent When	-.19	.29	.38*			
Parent Where	-.13	.08	.24		-.06	
Parent Why	-.08	.24	.57***	.36*	.32*	-.42**

*
p < .05
**
p < .01

p < .001

Table 4

Hierarchical Regression Analyses for Variables Predicting Child Story Quality (Younger Age Group)

	B	SE B	Beta
<i>What</i>	-.015	.028	-.163
<i>When</i>	.002	.084	-.005
<i>Where</i>	-.028	.067	-.125
<i>How</i>	.126	.038	.837**
<i>What-questions</i>	.006	.055	.021

**
 $p < .002$

Table 5
Spearman Correlations among Child Story Quality and Parent Statements in the Recent and Distant Events Parent-Child Conversation for the Younger Age Group

Narrative Measures	Child Story	P-Who	P-What	P-When	P-Where	P-Why
Recent Events (N = 22)						
Child Story Quality	–					
Parent Who	.26					
Parent What	.31	.60**				
Parent When	.56**	.54**	.82***			
Parent Where	.41	.74***	.78***	–		
Parent Why	.29	.39**	.53**	.81***	–	
Parent How	.47*	.54**	.75***	.44*	.52**	–
Distant Events (N = 22)						
Child Story Quality	–					
Parent Who	.05					
Parent What	–.03	.69***	–			
Parent When	–.27	.20	.40	–		
Parent Where	.10	.52**	.76***	.42*		
Parent Why	–.14	.27*	.28	–.19	.04	–
Parent How	–.06	.42*	.64***	.28	.51***	.24

*
p < .05
**
p < .01

p < .001

Table 6
Spearman Correlations among Child Story Quality and Parent Statements in the Recent and Distant Events Parent-Child Conversation for the Older Age Group

Narrative Measures	Child Story	P-Who	P-What	P-When	P-Where	P-Why
Recent Events (N = 17)						
Child Story Quality	–					
Parent Who	.17	–				
Parent What	.004	–.06				
Parent When	.23	–.21	.51*	–		
Parent Where	.20	.09	.42	.35		
Parent Why	.15	–.34	.43	.38	–.11	
Parent How	.27	–.02	.76***	.76***	.47*	–.38
Distant Events (N = 17)						
Child Story Quality	–					
Parent Who	–.13	–				
Parent What	.43	.09*	.40			
Parent When	.57**	–.47*	.56**	–.57**		
Parent Where	.51*	–.02	.24	.46	–.23	
Parent Why	.63**	–.13	.58**	.46	.80***	–
Parent How	.36	.21				.09

*
p < .05
**
p < .01

p < .001