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# The relationship between children's spontaneous utterances during joint bookreading and their retellings

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## Abstract

This study examined relationships between the spontaneous utterances of pre-kindergarteners (mean age = 5 years and 1 month) from low-income families during joint bookreading and their story retelling skills. Parent–child joint bookreading sessions ($N = 62$ dyads) and child story retelling sessions ($N = 46$) were videotaped. Results showed that children made more frequent spontaneous utterances related to interpretation of story than event-related and evaluative utterances. In addition, children who produced more frequent spontaneous utterances during joint bookreading tended to produce higher-quality story retelling. Children who produced more frequent spontaneous utterances about interpretation of the story and spontaneous repetition of maternal utterances tended to include more story events and to use more sophisticated language in their story retelling. These findings suggest that children's propensity for spontaneous verbal participation during joint bookreading may have a direct relationship with their retelling skills.

## Keywords

bookreading behaviors, low-income families, preschoolers, spontaneous utterances, story retelling

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## Introduction

Over the past two decades, the study of children's literacy development has expanded to examine antecedents in children's language and emergent literacy skills prior to formal schooling. This reflects an awareness that literacy acquisition does not begin with formal schooling, but with children's earlier experience with language and print through interactions with parents and other adults (Teale and Sulzby, 1986). One kind of mother–child interaction that has received much attention has been joint bookreading. Joint bookreading involves crucial components such as story structure, predictability, and parental scaffolding opportunities, all of which are potentially important for language and literacy development (Kirchner, 1988; Ninio and Bruner, 1978; Snow and Goldfield, 1983). Joint bookreading may also provide crucial opportunities for children to discuss what they read and summarize through retelling. (Re)telling requires the ability to talk about decontextualized topics and is associated with children's later literacy development (Paul and Smith, 1993; Wells, 1985).

The vast majority of research on joint bookreading has focussed on interactional patterns and strategies used by *mothers* during joint bookreading and how such interactions may relate to children's language and literacy development. Furthermore, although retelling skills have been shown to be related to later reading skills (Snow et al., 2001), few studies have examined young children's retelling skills in relation to joint bookreading at home. Finally, although there exists a large gap in access to print resources and literacy activities among families from different socioeconomic backgrounds (Neuman, 1996), most joint bookreading studies have focussed on middle-class mothers, and relatively less is known about variation in mother–child joint bookreading among low-income families and its relation to children's retelling skills (but see Arzubiaga et al., 2002; Gallimore and Goldberg, 1993 for reading engagement in low-income Latino families; Norman-Jackson, 1982 for reading engagement in low-income black families). The present study seeks to address this gap in the literature by examining *children's* spontaneous verbal contributions during joint bookreading in a sample of rural, white, low-income families, and how those verbal behaviors are related to children's story retelling.

## Background and context

Previous studies have shown that parents' interactional styles during joint bookreading vary. Some parents may read the text only, some may tell a

story without reading the text, some may talk about the illustrations, and others may have extensive verbal interactions involving the text. This variability in parental interactional styles has been shown to relate to children's language skills and literacy development (e.g. Davidson and Snow, 1995; De Temple, 2001). The facilitative role of parents' interactional patterns during joint bookreading is usually explained by a social constructivist account of learning. In particular, Vygotsky's (1978) Zone of Proximal Development (ZPD) states that adults' mediation enables young children to solve problems that they cannot solve independently. During joint bookreading, parents use various verbal scaffolding strategies in order to mediate the gap between the text and the child's cognition to enhance his/her understanding of the text (De Temple and Beals, 1991). Previous studies on the adult role in joint bookreading – how adults' various types of utterances are related to children's understanding of story – have revealed that both the frequency and quality of adult utterances (Peterson and McCabe, 1992) contribute to child language and narrative production. Furthermore, ethnographic studies have provided a detailed account of the complex process of emergent literacy acquisition of young children through interactions with parents (e.g. Baghban, 1984; Bissex, 1980) and older siblings (Lenhart and Roskos, 2003; Norman-Jackson, 1982).

While previous studies on joint bookreading have acknowledged and applied the constructive nature of meaning-making during joint bookreading, they primarily focussed on the facilitative role of adults or other experts (Fivush, 1991; Lenhart and Roskos, 2003; McCabe and Peterson, 1991; Snow and Dickinson, 1991) – adult scaffolding or support of the child in reading books and understanding stories during joint bookreading – or child attention to or interest in the bookreading interaction (e.g. Deckner et al., 2006; Scarborough and Dobrich, 1994). However, joint bookreading is a 'shared' experience, and thus, adult *and* child are both actively involved in the construction of meaning. Learning is an active process in which learners are involved in constructing their own understanding beyond simply mirroring and reflecting what they hear or read (von Glasersfeld, 1989). In addition, as learners become more practiced and competent, they take an increasingly larger role in their own learning process (Hart and Risley, 1999; von Glasersfeld, 1989). For example, Lass (1982, 1983), carefully observing her son's emergent literacy development from birth to age three, concluded that it may be beneficial to allow the child to lead interactions as he or she gets older. Thus, it is important to investigate how young children participate in meaning-making processes and how they make voluntary, spontaneous

contributions to verbal interactions during joint bookreading. We do not yet have a good understanding of how children's participation level during bookreading varies, and whether individual differences in the level of participation are related to language and literacy development (van Kleeck, 2003). Some children may be actively involved and make frequent unsolicited, spontaneous utterances, while other children may be more reluctant in engaging and producing spontaneous utterances. These individual differences may be related to their understanding of the story above and beyond the effects of maternal interactional styles. In other words, while it is true that children's interactional styles during joint bookreading are likely to be influenced by maternal solicitation and interactional styles, children also bring their own contributions to joint bookreading that may influence how well they follow the storyline and how well they remember and retell the story. It is this 'child effect' in interaction, the variation in *children's* contributions during joint bookreading, that we address here. In this study, we focus on how children's unsolicited, *spontaneous* utterances during joint bookreading, and quality of participation in particular, are related to their story retelling skills. We examine what kinds of spontaneous utterances children produce during mother–child joint bookreading, and how individual differences in various types of children's spontaneous utterances are related to their retelling skills. Spontaneous utterances are worth examining because they reveal what children are thinking, and provide an additional opportunity for adults and children to create meaning.

(Re)telling indexes multifaceted skills, such as a child's ability to use decontextualized language, narrative structural features, and linguistic devices. Although narrative skills (including retelling skills) are important oral language skills, they may be relatively distinct from other language skills (Snow and Dickinson, 1991). Difficulty with oral narrative skills is associated with language delay and learning disabilities (Evans, 1987). Furthermore, narrative skills in kindergarten by low-income children have been found to be positively associated with their reading comprehension in grades four and seven (Snow, 1983; Snow et al., 2001). One of the critical sources of developing narrative skills is language socialization in the home (Pritchard, 1990). Parental scaffolding and elicitation patterns vary significantly (Fivush, 1991; Peterson and McCabe, 1992; Pratt et al., 1988), and this variability is related to individual differences in narrative production (Fivush, 1991; Peterson and McCabe, 1992). Parent–child verbal interaction during joint bookreading provides opportunities for parental scaffolding and for child discourse production. Several previous studies have examined separately children's narrative

production and retelling skills (Geva and Olson, 1983) and mothers' interactive styles during joint bookreading (Reese, 1995), but only a few studies have examined the relationship between interactional patterns during joint bookreading and children's retelling skills. De Temple and Tabors (1996), for example, showed that the percentage of *mother* non-immediate utterances during joint bookreading when the child was three and half years old was positively related to their story retelling two years later. Likewise, Kang et al. (in press) provided evidence to show that the opportunity to practice language skills in the context of joint bookreading with a familiar adult may contribute to children's oral retelling. However, to our best knowledge there is no study that has investigated the relationship between *child* spontaneous interactional patterns during joint bookreading and child retelling skills. In the present study, we seek to fill this gap in the literature by investigating how children's spontaneous contributions to verbal interactions during joint bookreading are related to their story retelling.

In summary, the present study had two aims: (1) to describe the characteristics of preschoolers' spontaneous contributions during joint bookreading, and (2) to examine the nature of the relationship between children's spontaneous production during bookreading and their story retelling. In this article, spontaneous utterances are defined as unsolicited, 'spontaneous comments or questions made by the child or which followed a neutral utterance by an adult' (Kertoy, 1994). In contrast, solicited utterances are those that immediately follow adult questions or comments.

## Method

### *Participants*

Participants were 62 mothers of low socioeconomic status and their preschool-aged children (35 boys and 27 girls) being followed as part of a larger national longitudinal study on the effectiveness of Early Head Start (EHS; Administration for Children and Families, 2002; Love et al., 2005). At entry to the study, families were living in a rural New England community and qualified for public assistance. Families enrolled in the study during the mother's pregnancy or before the target child's first birthday and were randomly assigned to either the program or comparison group. The current study reports on data collected in the spring before children were eligible to enter kindergarten and includes all families who agreed to be videotaped engaging in mother–child activities, including joint bookreading and story retelling. EHS is a two-generation federally funded program that seeks to enhance

child development and family well-being. Importantly for this study, EHS, unlike other programs such as Even Start, does not promote bookreading specifically. Of the present sample, 44% were families originally assigned to receive EHS services. Although the families in this study were drawn from those who were assigned to the EHS program and comparison group, there were no mean differences between the two groups on any of the observed variables in this study (Table 1). Families were predominantly white (93%) and identified English as their home language (100%). Mothers' education ranged from 9 to 18 years with a mean of 12.68 (SD = 1.74). Children's ages ranged from 4 years 7 months to 5 years 8 months (M = 5 years 1 month).

**Table 1.** Means (standard deviations) during parent–child joint bookreading (N = 62 for child and mother utterances; N = 46 for story retelling and emergent literacy skills)

| | Overall sample | | Early Head Start family | Non-Early Head Start family | |
|---|---|---|---|---|---|
| | *M* (SD) | Range | *M* (SD) | *M* (SD) | *T* stats (p) |
| *Child utterances* | | | | | |
| Total response utterances to maternal request | 7.34 (9.87) | 0–39 | 8.62 (11.24) | 6.35 (8.71) | -0.89 (.37) |
| Total unsolicited utterances | 10.39 (10.33) | 0–43 | 9.85 (9.04) | 10.80 (11.34) | 0.34 (.72) |
| Unsolicited picture vocabulary | 1.98 (3.19) | 0–18 | 1.67 (2.73) | 2.23 (3.52) | 0.69 (.50) |
| Unsolicited event and description | 1.05 (2.29) | 0–12 | 1.07 (2.35) | 1.03 (2.28) | -0.08 (.94) |
| Unsolicited evaluation | 0.32 (0.70) | 0–3 | .30 (.72) | .34 (.68) | 0.26 (.80) |
| Unsolicited interpretative information | 4.45 (7.19) | 0–38 | 3.56 (4.04) | 5.14 (8.90) | 0.86 (.39) |
| Unsolicited repetition of mother's utterances | 2.15 (3.49) | 0–23 | 2.78 (4.56) | 1.66 (2.31) | -1.26 (.21) |
| *Mother utterances* | | | | | |
| Total number of utterances | 23.24 (16.52) | 0–83 | 21.30 (15.41) | 24.74 (17.40) | 0.81 (.42) |
| Total requests | 9.56 (8.59) | 0–36 | 8.70 (8.32) | 10.23 (8.86) | 0.69 (.49) |
| *Child story retelling* | | | | | |
| Total story retelling score | 12.07 (4.57) | 2–23 | 13.00 (4.91) | 12.48 (5.24) | -0.34 (.73) |
| Story structural features | 2.39 (1.87) | 0–7 | 2.48 (2.18) | 2.32 (1.60) | -0.28 (.78) |
| Recounting events | 2.87 (1.34) | 0–6 | 3.05 (1.36) | 2.72 (1.34) | -0.82 (.42) |
| Microlinguistic features | 6.80 (2.13) | 2–12 | 6.71 (1.95) | 6.88 (2.30) | 0.26 (.80) |
| *Child receptive vocabulary* | 103.17 (14.05) | 69–130 | 101.57 (14.82) | 104.52 (13.52) | 0.71 (.48) |

### *Procedure*

The EHS study included child assessments, parent interviews, home observations, and childcare observations. The present study used observational bookreading data at home in the spring before children were eligible to enter kindergarten. Mothers were videotaped as they and their child read *The Very Hungry Caterpillar* (Carle, 1983). The book was familiar to the mothers and children because the mothers had had the opportunity to read the same book when the child was 36 months old (for a description, see Pan et al., 2005). *The Very Hungry Caterpillar* was chosen because its predictive and repetitive nature lends itself to child participation. Recordings were done by research staff in the home, in the context of a longer protocol involving parent interview and parent–child play. For the joint bookreading task, mothers were told: 'You and your child may have read this book together on one of our earlier visits. We'd like you to take a few minutes now to read it together again. Let me know when you're done.' After the dyad had read the book, the child was asked to do two other activities: writing their own name and phonological awareness tasks. These generally took about 10 minutes. Then the child was told: 'The last thing I'd like you to do today is to tell me this story that you and your mom read earlier. If you want, you can look through the book as you're telling the story. Try to tell it so that another little boy or girl who hasn't read the book would understand the story.'

### *Transcription and coding of utterances*

The videotaped bookreading interactions and children's retelling were transcribed verbatim into the Child Language Data Exchange System (CHILDES; MacWhinney, 2000) following the Codes for the Human Analysis of Transcripts (CHAT) transcription guidelines. The transcripts were reviewed and verified by a person other than the transcriber. The unit of analysis was each utterance produced by mother or child during bookreading. Utterances that were simply verbatim reading of the text and those unrelated to the bookreading were excluded from analysis (e.g. maternal utterance such as 'Stop it please' to a target child's sibling who was pulling the mother's hair). Based on previous bookreading research (De Temple, 1994; Haden et al., 1996; Kato-Otani, 2004), transcripts were coded for a number of features of maternal and child talk. Of relevance for the current study are the number of maternal questions/requests for information posed to the child, child responses, and child spontaneous utterances. The child's story

retelling was coded for the number of main events recounted, narrative structural features included, and use of linguistic features.

*Child utterances during bookreading.* Child utterances were coded as being either in response to a mother utterance or as spontaneous, unsolicited utterances. A child's voluntary statement linked to the topic raised by the mother that was not in the request form was coded as a spontaneous utterance. For instance, a child's utterance 'a butterfly' to a mother's question, 'You see what he turned into?' (showing pictures to the child) was a response utterance. The same child, then, continued to state, 'First, he got big,' which was coded as a spontaneous utterance. Children's spontaneous utterances were further subcategorized as follows:

- *Vocabulary/labeling.* Utterances about name of objects, or definition of a word (e.g. 'What is a cocoon?', 'This is the big leaf.')
- *Event and description.* Utterances about description of the story, actions of the character, or events in the story (e.g. 'He popped out of the egg.', 'He was fat now.')
- *Evaluation.* Utterances that provide a perspective on actions and events in the story such as references to thoughts and feelings of characters about events (e.g. 'This is a sad story.', 'Oh my goodness. He is gonna be fat.').
- *Interpretive questions/information.* Utterances that interpret or paraphrase story lines (e.g. 'Why he got tummy ache?', 'That [butterfly] is what he wanted to turn into?','I don't like salami.')
- *Repetition of mother's utterances* (e.g. Mother: 'What did he eat?... one apple.' Child: 'One apple.')

*Maternal requests during bookreading.* Maternal requests were coded for type of information solicited (e.g. request for vocabulary, events). Because maternal interactional styles have been shown to influence children's interactions during joint bookreading, in this study we initially used number of maternal requests as a control variable in regression analyses examining the relationship between child spontaneous verbal contributions during joint bookreading and story retelling. However, as we explain in the Results section, we ultimately chose to use child-solicited utterances instead as the key control variable.

*Children's story retelling.* Each instance of the following produced by the child in story retelling was coded and tabulated:

- *Story structural features* (Peterson and McCabe, 1983):
  - Introduction (e.g. 'This story is called *The Very Hungry Caterpillar.*')
  - Orientation (i.e. utterances that described the setting of the story – place, time and character introduction/description)

  - Identification of the main character (e.g. 'little caterpillar')
  - Identification of problem (e.g. 'The caterpillar was so hungry.')
  - Identification of resolution (e.g. 'So he ate so many things.')
  - Closing (e.g. 'That's the end.', 'That's it.').
- *Recounting of mainline events* in the story retelling (e.g. caterpillar popping out of the egg, caterpillar having a stomachache, and caterpillar building a cocoon).
- *Microlinguistic features* serving cohesive or evaluative purposes. Cohesive devices included the following:
  - Appropriate use of reference for first mention of a new character. Each child's retelling was given a score ranging from 0 to 3 (0 for no mention of characters and 3 for the use of indefinite article + noun or number + noun; use of unspecified pronouns (e.g. he) and presupposed reference using definite article (e.g. the caterpillar) were given intermediate scores of 1 and 2, respectively).
  - Appropriate use of tense. A dichotomous score was assigned to the use of anchor tense use (i.e. 1 for consistent use of anchor tense and 0 for lack of anchor tense).
  - Use of connectives. Children who used sophisticated connectives (e.g. because, but, before) received a score of 2, while those who used more basic ones (e.g. and, and then) received a score of 1, and those who used no connectives a score of 0.

Evaluative devices included markers such as intensifiers, character delineation, adjectives, and emotion words (Peterson and McCabe, 1983). Each instance of evaluative devices included in the child's retelling was tallied.

A total of 62 joint bookreading transcripts and 46 story retelling transcripts were analyzed. Sixteen children's retelling sessions were unusable because the child in some way declined to or was unable to retell the story at all. Twenty percent (20%) of the transcripts of bookreadings and story tellings were randomly selected to assess reliability of the coding system. Cohen's $\kappa$ (Bakeman and Gottman, 1986), a measure of inter-coder agreement that corrects for chance, between the first two authors ranged from 0.81 to 0.94 for subcodes.

### *Child's receptive vocabulary*

In the present study, children's receptive vocabulary was included as a control variable in regression models in order to remove the potential confounding effect of children's general verbal skills in the examination of the relationship between their spontaneous remarks during joint bookreading and their story retelling. Receptive vocabulary was measured by the Peabody Picture Vocabulary Test-Third Edition (PPVT-III; Dunn et al., 1997), in which children

are shown four pictures and asked to point to the picture that best shows the meaning of the word said aloud by the examiner. The PPVT-III has been shown to have high internal consistency reliability when used with low-income, English-speaking children (Cronbach's $\alpha = 0.96–0.97$; Administration for Children and Families, 2003).

## Results

Our first question concerned the characteristics of preschool-aged children's spontaneous verbal production during joint bookreading. Table 1 presents descriptive statistics for various types of child utterances, overall maternal request utterances, and children's performance on story retelling. The children produced about 18 utterances, on average, during the joint bookreading, and approximately half of their utterances were spontaneous (i.e. unsolicited by the mother), with large variation around the mean ($M = 10.39$, $SD = 10.33$). The most frequent type of child spontaneous utterance related to interpretive aspects of the story ($M = 4.45$). On average, children also produced approximately two spontaneous utterances related to vocabulary/labeling (e.g. 'What is this?' pointing to a cocoon) and two that were spontaneous repetitions of the preceding maternal utterance. Spontaneous utterances about story events/description did not occur as frequently; spontaneous utterances related to evaluation occurred minimally. Large variation was observed in each type of spontaneous child utterance.

For their part, mothers produced 23 extratextual utterances, on average, during the joint bookreading, of which an average of 10 were request utterances (e.g. 'How many?' pointing to the picture of strawberries). However, there was large variation among mothers: one mother produced no requests (and, in fact, no extratextual talk at all), while another produced 36 requests. The amount of maternal and child extraextual talk was highly correlated ($r = 60$, $p < 0.001$). Not surprisingly, maternal request utterances were largely related to child responses to those utterances ($r = 75$, $p < 0.001$) (for a more detailed description on mother's interactional styles during joint bookreading, see Kang et al., in press). Preliminary analyses showed that maternal request utterances and child-solicited utterances were highly positively correlated and that the inclusion of either as a control variable yielded essentially similar results. Therefore, we report here the results with child-solicited utterances as a control variable.

In story retelling, children recounted an average of approximately three main story events and included two story structural features (e.g. identifying

the main character and a problem). Children tended to use anchor tense appropriately, adhering to a single past-tense time frame. However, their use of connectives was, on average, limited primarily to 'and', a relatively unsophisticated connective.

The second question of interest was whether various types of children's spontaneous utterances during joint bookreading were related to story retelling performance. We addressed this question using bivariate correlations and hierarchical regression analyses. In hierarchical regression models, the frequency of child-solicited utterances and child-receptive vocabulary were entered into the model in the first step as control variables. In the second step, different types of child spontaneous utterance (e.g. event description and interpretation) were individually entered as predictors of children's performances on the story retelling.

Results of both correlation and regression analyses showed that child spontaneous utterances, particularly interpretative utterances and repetition of maternal utterances, were related to children's performance on the retelling task. Table 2 shows bivariate correlations between child spontaneous utterance types during joint bookreading and story retelling. Children's spontaneous utterances about interpretation of the story, as well as spontaneous repetition of maternal utterances, were positively associated with overall story retelling performance (total score), as well as with all three dimensions of story retelling (albeit marginally so for interpretation and story structural features, $r = 28$, $p = 06$). Interestingly, the frequencies of different types of children's spontaneous utterances were not interrelated, with the exception of vocabulary/labeling and interpretative utterances ($r = 42$, $p = 004$), suggesting that children differ in the ways they contribute to joint bookreading talk.

Results from regression analyses revealed that children's spontaneous utterances about vocabulary/labeling ($p = 01$), story interpretation ($p = 002$), and their spontaneous repetitions of maternal utterances ($p = 007$) were all related to overall story retelling performance (total score), even after controlling for total number of child-solicited utterances and receptive vocabulary skills (Table 3). Furthermore, children who produced more frequent spontaneous utterances about vocabulary/labeling ($p = 003$) and more frequent spontaneous repetitions of maternal utterances ($p = 05$) tended to include more key story structural features (e.g. introduction, orientation, identification of main characters) in their retelling. When number of events recounted in story retelling was the outcome variable, children's utterances related to interpretation of the story ($p = 004$) and their repetition of maternal utterances ($p = 000$), respectively, made positive contributions. When the outcome

**Table 2.** Correlations between child's spontaneous utterances during joint bookreading and his/her story retelling and receptive vocabulary

| | Child's spontaneous utterance types | | | | |
|---|---|---|---|---|---|
| | Vocabulary/ labeling | Events/ description | Evaluation | Interpretation | Repetition |
| Child spontaneous utterances during joint bookreading | | | | | |
| Vocabulary/labeling | – | | | | |
| Events/description | -.08 | – | | | |
| Evaluation | .10 | -.10 | – | | |
| Interpretation | .42** | -.16 | -.02 | – | |
| Repetition | .20 | -.07 | .14 | .20 | – |
| Child story retelling | | | | | |
| Total score in retelling | .35* | .05 | -.04 | .48** | .40** |
| Story structural features | .43** | .18 | .02 | .28~ | .30* |
| Recounting events | .21 | .12 | .02 | .47** | .51*** |
| Microlinguistic features | .21 | -.10 | -.13 | .48** | .34* |
| Child receptive vocabulary | .00 | -.01 | -.26~ | .21 | .06 |

Key:
~$p < 10$,
*$p < 05$,
**$p < 01$,
***$p < 001$.

was microlinguistic features children used in story retelling, spontaneous utterances about story interpretation and spontaneous repetition of maternal utterances by the child were positively related ($p \leq 02$).

## Discussion

The first goal of this study was a descriptive one of documenting variation in the bookreading interactions of a sample of low-income mother–child dyads, with a focus on children's spontaneous contribution to the interaction. Previously, in the rather extensive literature on joint bookreading by parents and young children, adult behaviors have been examined in some detail, whereas children's behavior in this 'shared' experience has been largely confined to assessments of their attention to or interest in the bookreading interaction (e.g. Deckner et al., 2006; Scarborough and Dobrich, 1994). For young

**Table 3.** Results of hierarchical regression models predicting children's story retelling (i.e. total score, and three dimensions) by their types of spontaneous utterances during joint bookreading, controlling for frequency of child's responses to mother request utterances and child receptive vocabulary (N = 46)

| | | Outcome: story retelling | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total score | | | Story structural features | | | Recounting events | | | Microlinguistic features | | |
| Step | | *R* | $\Delta R^2$ | $\Delta F$ | *R* | $\Delta R^2$ | $\Delta F$ | *R* | $\Delta R^2$ | $\Delta F$ | *R* | $\Delta R^2$ | $\Delta F$ |
| 1 | Child-solicited utterances and vocabulary | .35 | .12 | 2.91~ | .20 | .04 | 0.94 | .41 | .17 | 4.35* | .30 | .09 | 2.12 |
| 2 | Vocabulary/labeling | .50 | .13 | 7.13* | .48 | .19 | 10.22** | .46 | .05 | 2.44 | .37 | .05 | 2.43 |
| 2 | Events/description | .35 | .003 | 0.13 | .27 | .03 | 1.52 | .43 | .02 | 0.80 | .32 | .009 | 0.43 |
| 2 | Evaluation | .35 | .004 | 0.20 | .22 | .007 | 0.30 | .43 | .02 | 0.91 | .30 | .002 | 0.07 |
| 2 | Interpretive information | .56 | .19 | 11.47** | .32 | .06 | 2.94~ | .57 | .15 | 9.56** | .54 | .20 | 11.90** |
| 2 | Repetition of mother's utterances | .51 | .14 | 8.00** | .35 | .08 | 5.96* | .63 | .23 | 16.30*** | .44 | .11 | 5.62* |

~$p \leq 10$,
*$p \leq 05$,
**$p \leq 01$,
***$p \leq 001$.

toddlers, holistic ratings of participation may suffice, but for preschoolers, a closer look at the texture and quality of participation seems sorely needed. Results of the current study suggest that children on the eve of kindergarten are focussed on meaning-making, on average devoting about twice as many spontaneous utterances to interpretation of story content than to either events themselves or vocabulary. Their spontaneous questions and statements frequently involved linking the content of the book to their own life (e.g. 'But he was still hungry. I'm not hungry.'), or clarifying (e.g. 'Why?', 'Why did he eat the leaf?') and confirming their interpretation (e.g. 'The caterpillar was finally feeling better.', 'That is what he wanted to turn into?'). The focus on interpretation is particularly interesting, given the prominent depiction of different types of foods in *The Very Hungry Caterpillar*, which might have been expected to elicit vocabulary talk, and given that approximately a third of mothers' requests/questions were concerning vocabulary and labeling (Kang et al., in press). Apparently, children themselves see books not so much as opportunities for learning and practicing vocabulary, but rather for positing, confirming, and co-constructing meaning. Such an orientation may serve children well in school, where they will be expected to digest and summarize information presented orally and, later, to comprehend text themselves. We do note, though, that the variation observed across children in these verbal behaviors was quite large, particularly given the linguistic, ethnic, and socioeconomic homogeneity of the sample. This suggests that not all children are yet disposed to participate actively in meaning-making conversation during bookreading. Further work along these lines is needed using books of different genres and of differing levels of familiarity.

The second goal of the study was to investigate the relationship between children's spontaneous utterances and their story retelling. Results of this study highlight the positive association between children's active engagement during joint bookreading and their story retelling skills. In particular, spontaneous talk about story interpretation during joint bookreading was related to recounting events and microlinguistic features used in retelling. Interpretive talk may help children focus their attention on understanding the sequence of events in the story so that they are able to recall and include more events in their retelling. For instance, a child who remarks that 'The caterpillar was finally feeling better' may be more likely to remember why the caterpillar had a stomachache (i.e. because he had gorged himself) and how he got better (by eating a green leaf). In contrast, vocabulary/labeling talk may do little to promote understanding and reproduction of the story's main events in retelling.

Somewhat surprisingly, children's spontaneous event-related utterances and evaluative utterances were minimal during joint bookreading and were not related to their story retelling performance. This lack of relationship may be due to floor effects, particularly for evaluative utterances. Evaluative utterances are usually considered a higher-order skill, and spontaneous evaluative utterances thus may not have frequently occurred in this sample of children from low socioeconomic families. Another explanation for the low frequency of evaluative utterances may be the characteristics of the book; *The Very Hungry Caterpillar* may not provide many opportunities for evaluative utterances. Future research should examine various types of books to capture sufficient variation in different types of spontaneous utterances, particularly evaluative utterances.

The findings of the present study suggest that the voluntary imitation of maternal speech during joint bookreading is not uncommon for pre-kindergarten-aged children, in this sample. For example, one child repeated most of his mother's utterances during the bookreading session. Interestingly, the results also suggest a potential contribution of such voluntary imitation of maternal speech during joint bookreading to children's retelling skills. Children's spontaneous repetition of maternal utterances in the bookreading session positively predicted the overall quality of their story retelling, as well as their recounting of events, story structural features, and microlinguistic features. These predictive relationships held when controlling for the frequency of child-solicited utterances and children's receptive vocabulary. Studies of young children have demonstrated that two year olds' verbal imitation predicts their vocabulary as well as their syntactic development (Masur, 1995; Masur and Eichorst, 2002; Snow, 1989). Although the role of verbal imitation in language development is less clear for preschoolers, the findings of the present study suggest that children's imitation of mothers' extratextual talk may help them process and encode important aspects of story (re)telling, such as understanding the series of events and inclusion of narrative structural features. Furthermore, children's imitation may help them internalize microlinguistic features of maternal speech, as suggested by the result that children who frequently repeated their mother's utterances tended to include more sophisticated language features in their retelling.

### *Limitations and implications*

Although the present study complements earlier research in a number of important ways, it also has several limitations. The familiarity of the book

being read influences how mothers and children interact during joint book-reading (Haden et al., 1996). In this study, all dyads had some familiarity with the book because it had been used in earlier rounds of data collection. However, it is likely that some dyads were more familiar with the book than others, either because they owned it or had borrowed it from the library. Having no information about extent of previous familiarity with the book, we were unable to assess the possible influence of this factor.

Furthermore, we examined mother–child interactions using only one book. It is possible that in reading a different book or a different genre, children in the sample might have shown more variability in the production of some of the types of utterances examined in this study (van Kleeck, 2003). However, while it is true that any given book likely promotes certain types of utterances more than others, the book used in this study is one that tends to encourage child participation, due to its predictive and repetitive nature. Further research is needed to examine how different types of books differentially influence participation. Furthermore, a future study should include a larger sample, particularly for children's retelling.

Finally, it should be noted that bookreading is largely a cultural practice that is embedded in sociocultural and sociohistorical contexts (e.g. Panofsky, 2000). Given this perspective, it may be argued that the child's spontaneous verbal contributions are a reflection of their learned (or internalized) behaviors that are rooted in the home culture (van Kleeck, 2003). In other words, children who were more likely to make certain spontaneous verbal remarks may have been socialized to a certain cultural practice (e.g. verbal display of knowledge), and the results of the present study may reflect cultural differences between homes that are seemingly homogeneous in socioeconomic status. Moreover, the present study is limited in providing the broader cultural context in which the mother–child interactions occurred. For example, although the videotaped bookreading occurred at home, how each parent–child dyad interpreted the recorded bookreading activity is unclear. Some parents may have taken it as a special occasion to demonstrate their 'teaching' role, showing more of certain types of activities. Thus, it is possible that the parent–child interactions observed in this study may be different from those occurring day to day. The present study did not purport to examine this larger aspect of bookreading as a social or cultural event. Further research is warranted to provide a fuller picture of the cultural context and variation in mother–child joint bookreading interactions in rural, white low-income families.

## Conclusion

Despite these limitations, the present study demonstrates how children's spontaneous contributions during joint bookreading relate to their story retelling skills. These findings suggest the importance of acknowledging, and encouraging and reinforcing children's active participation in book-reading interactions, beyond simply responding to adult questions. Such an approach is very much in keeping with the dialogic reading technique advocated by Whitehurst and Lonigan (1998), in which the child is encouraged, over repeated readings, to take more and more responsibility for the telling of the story. We note that from the child's perspective, such an activity is essentially a story *retelling* one. The predisposition of some preschoolers to focus on meaning-making may need to be cultivated in others. Children may benefit from attending to and discussing multiple aspects of story, including higher-order story interpretation. They may also benefit from positive reinforcement of spontaneous repetition of adult verbalization. Thus, it may be advisable for intervention programs for low-income mothers and their children to focus not just on maternal verbal behavior and on children's responses, but to include coaching in how to attend to, encourage and build on young children's spontaneous verbal contributions during joint bookreading.

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## References

Administration for Children and Families. (2002) *Making a Difference in the Lives of Infants and Toddlers and their Families: The Impacts of Early Head Start*. Washington, DC: Administration for Children and Families.

Administration for Children and Families. (2003) *Head Start FACES (2003): A Whole Child Perspective on Program Performance – Fourth Progress Report*. Washington, DC: Administration for Children and Families.

Andreson-Yockel J and Haynes WO (1994) 'Joint Book-Reading Strategies in Working-Class African American and White Mother–Toddler Dyads'. *Journal of Speech and Hearing Research* 37: 583–593.

Arzubiaga A, Rueda R and Monzó L (2002) *Family Matters Related to the Reading Engagement of Latina/o Children. CIERA Report* #1-015. Ann Arbor, MI: Center for the Improvement of Early Reading Achievement. http://www.ciera.org/library/reports/inquiry-1/index.html (consulted April 2011).

Baghban M (1984) *Our Daughter Learns to Read and Write: A Case Study from Birth to Three*. Newark, DE: International Reading Association.

Bakeman R and Gottman JM (1986) *Observing Interaction. An Introduction to Sequential Analysis*. Cambridge: Cambridge University Press.

Bissex GL (1980) *Gnys at Wrk: A Child Learns to Read and Write*. Cambridge, MA: Harvard University Press.

Carle E (1983) *The Very Hungry Caterpillar*. New York, NY: Putnam Publishing.

Davidson RG and Snow CE (1995) 'The Linguistic Environment of Early Readers'. *Journal of Research in Childhood Education* 10(1): 5–21.

De Temple JM (1994) *Bookreading Interaction among Low-Income Mothers with Preschoolers and Children's Later Literacy Skills*. Unpublished doctoral dissertation. Harvard Graduate School of Education, Cambridge, MA.

De Temple JM (2001) Parents and Children Reading Books Together. In: Dickinson DK and Tabors PO (eds) *Beginning Literacy with Language*. Baltimore, MD: Paul H. Brookes.

De Temple JM and Beals DE (1991) 'Family Talk: Sources of Support for the Development of Decontextualized Language Skills'. *Journal of Research in Childhood Education* 6(1): 11–20.

De Temple JM and Tabors PO (1996) *Children's Story Retelling as a Predictor of Early Reading Achievement*. Paper presented at the Biennial Meeting of the International Society for the Study of Behavioral Development, Quebec City, Canada, 12–16 August.

Deckner DF, Adamson LB and Bakeman R (2006) 'Child and Maternal Contributions to Shared Reading: Effects on Language and Literacy Development'. *Applied Developmental Psychology* 27(1): 31–41.

Dunn LM, Dunn LL and Dunn DM (1997) *Peabody Picture and Vocabulary Test, Third Edition. Examiner's Manual and Norms Booklet*. Circle Pines, MN: American Guidance Service.

Evans MA (1987) 'Discourse Characteristics of Reticent Children'. *Applied Psycholinguistics* 8(2): 171–184.

Fivush R (1991) 'The Social Construction of Personal Narratives'. *Merrill-Palmer Quarterly* 37(1): 59–81.

Gallimore R and Goldberg C (1993) Activity Settings of Early Literacy: Home and School Factors in Children's Emergent Literacy. In: Foorman E, Minick N and Stone CA (eds) *Contexts for Learning: Sociocultural Dynamics in Children's Development*. New York, NY: Oxford University Press.

Geva E and Olson D (1983) 'Children's Story-Retelling'. *First Language* 4(11): 85–110.

Haden CA, Reese E and Fivush R (1996) 'Mothers' Extratextual Comments during Storybookreading: Stylistic Differences over Time and across Texts'. *Discourse Processes* 21(2): 135–169.

Hart B and Risley TR (1999) *The Social World of Children Learning to Talk*. Baltimore, MD: Paul H. Brookes.

Kang JY, Kim Y-S and Pan BA (2009) 'Five-Year-Olds' Book Talk and Story Retelling: Contributions of Mother–Child Joint Bookreading'. *First Language* 29: 243–265.

Kato-Otani E (2004) *Story Time: Mothers' Reading Practices in Japan and the US*. Cambridge, MA: Harvard Family Research Project.

Kertoy MK (1994) 'Adult Interactive Strategies and the Spontaneous Comments of Preschoolers during Joint Storybook Readings'. *Journal of Research in Childhood Education* 9(1): 58–67.

Kirchner D (1988) 'Using Verbal Scaffolding to Facilitate Conversational Participation and Language Acquisition in Children with Pervasive Developmental Disorders'. *Communication Disorders Quarterly* 14(1): 81–98.

Lass B (1982) 'Portrait of my Son as an Early Reader'. *The Reading Teacher* 36(1): 20–28.

Lass B (1983) 'Portrait of my Son as an Early Reader II'. *The Reading Teacher* 36(6): 508–515.

Lenhart L and Roskos K (2003) What Hannah taught Emma and Why it Matters. In: Barone DM and Morrow LM (eds) *Literacy and Young Children*. New York, NY: The Guilford Press.

Love J, Kisker EE, Ross C, Raikes H, Constantine J, Boller K, et al. (2005) 'The Effectiveness of Early Head Start for 3-Year-Old Children and their Parents'. *Developmental Psychology* 41(6): 885–901.

McCabe A and Peterson C (1991) *Developing Narrative Structure*. Hillsdale, NJ: Lawrence Erlbaum.

MacWhinney B (2000) *The CHILDES Project: Tools for Analyzing Talk*. Mahwah, NJ: Lawrence Erlbaum Associates.

Masur EF (1995) 'Infants' Early Verbal Imitation and their Later Lexical Development'. *Merrill-Palmer Quarterly* 41(3): 286–306.

Masur EF and Eichorst DL (2002) 'Infants' Spontaneous Imitation of Novel versus Familiar Words: Relations to Observational and Maternal Report Measures of their Lexicons'. *Merrill-Palmer Quarterly* 48(4): 405–426.

Neuman SB (1996) 'Children Engaging in Storybookreading: The Influence of Access to Print Resources, Opportunity, and Parental Interaction'. *Early Childhood Research Quarterly* 11(4): 495–513.

Ninio A and Bruner J (1978) 'The Achievement and Antecedents of Labeling'. *Journal of Child Language* 5: 1–15.

Norman-Jackson J (1982) 'Family Interactions, Language Development, and Primary Reading Achievement of Black Children in Families of Low Income'. *Child Development* 53(2): 349–358.

Pan BA, Rowe ML, Singer JD and Snow CE (2005) 'Maternal Correlates of Growth in Toddler Vocabulary Production in Low-Income Families'. *Child Development* 76(4): 763–782.

Panofsky CP (2000) Examining the Research Narrative in Early Literacy: The Case of Parent–Child Book Reading Activity. In: Gallego MA and Hollingsworth S (eds) *What Counts as Literacy? Challenging the School Standard*. New York, NY: Teachers College Press.

Paul R and Smith RL (1993) 'Narrative Skills in 4-Year-Olds with Typical, Impaired, and Late-Developing Language'. *Journal of Speech and Hearing Research* 36: 592–598.

Peterson C and McCabe A (1983) *Developmental Psycholinguistics: Three Ways of Looking at a Child's Narrative*. New York, NY: Plenum.

Peterson C and McCabe A (1992) 'Parental Styles of Narrative Elicitation: Effect on Children's Narrative Structure and Content'. *First Language* 12(36): 299–321.

Pratt MW, Kerig P, Cowan PA and Cowan CP (1988) 'Mothers and Fathers Teaching 3-Year-Olds: Authoritative Parenting and Adult Scaffolding of Young Children's Learning'. *Developmental Psychology* 24(6): 832–839.

Pritchard R (1990) 'The Effects of Cultural Schemata on Reading Processing Strategies'. *Reading Research Quarterly* 25(4): 273–295.

Reese E (1995) 'Predicting Children's Literacy from Mother–Child Conversations'. *Cognitive Development* 10(3): 381–405.

Scarborough HS and Dobrich W (1994) 'On the Efficacy of Reading to Preschoolers'. *Developmental Review* 14(3): 245–302.

Snow CE (1983) 'Literacy and Language: Relationships during the Preschool Years'. *Harvard Educational Review* 53(2): 165–189.

Snow CE (1989) Imitativeness: A Trait or a Skill? In: Speidel GE and Nelson KE (eds) *The Many Faces of Imitation in Language Learning* New York, NY: Springer-Verlag.

Snow CE and Dickinson DK (1991) Skills that Aren't Basic in a New Conception of Literacy. In: Purves A and Jennings E (eds) *Literate Systems and Individual Lives: Perspectives on Literacy and Schooling*. Albany, NY: SUNY Press.

Snow CE and Goldfield B (1983) 'Turn the Page Please: Situation-Specific Language Learning'. *Journal of Child Language* 10(3): 551–570.

Snow CE, Tabors PO and Dickinson DK (2001) Language Development in the Preschool Years. In: Dickinson DK and Tabors PO (eds) *Beginning Literacy with Language: Young Children Learning at Home and School*. Baltimore, MD: Paul H. Brookes.

Teale WH and Sulzby E (1986) *Emergent Literacy: Writing and Reading*. Norwood, NJ: Ablex.

van Kleeck A (2003) Research on Book Sharing: Another Critical Look. In: Kleek A van, Stahl SA and Bauer EB (eds) *On Reading Books to Children: Parents and Teachers*. Mahwah, NJ: Lawrence Erlbaum Associates.

von Glasersfeld E (1989) Abstraction, Representation, and Reflection. In: Steffe LP (ed.) *Epistemological Foundations of Mathematical Experience*. New York, NY: Springer.

Vygotsky LV (1978) *Mind in Society*. Cambridge, MA: Harvard University Press.

Wells G (1985) Preschool Literacy-Related Activities and Success in School. In: Olson DR, Torrance N and Hildyard A (eds) *Literacy, Language, and Learning*. Cambridge: Cambridge University Press.

Whitehurst GJ and Lonigan C (1998) 'Child Development and Emergent Literacy'. *Child Development* 69(3): 848–872.