Developing the representational functions of language: The role of parent–child book-reading activity

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It is a commonplace of our educational wisdom that young children should be read to. Not only is this belief widely held in popular thought but within the professional educational community as well (Teale, 1984). Yet it is not sufficient to say that reading to children is a key to literacy. As research (e.g., Heath, 1982, 1983; Wells, 1982, 1985) has shown, not all children who are “read to” at home do well in early literacy instruction.

Critical to the experience of adult–child book reading is the nature of that activity. In her ethnographic study of children from three communities, Heath (1982) found, for example, that when adults looked at books with very young children, all engaged in the kind of pointing-and-naming games, which Ninio and Bruner (1978) referred to as “ritual naming.” However, once children’s vocabulary needs diminished, some parents demanded an end to verbal interaction during book reading – children were expected to “be quiet and listen” – while other parents allowed the verbal interaction to remain a part of the activity. In a similar kind of contrastive finding in his longitudinal study, Wells (1985) found no correlation between looking at picture books with later literacy development but did find a significant correlation with the reading of stories and later success. Wells proposes that both the rich language of stories and the sort of talk that arises from stories “prepares the child to cope with the style of teaching and assessing that is so frequently observed in schools”:

As a result of the stories that are read to him, [the child’s] world stretches beyond the present actuality into the world of imaginary characters whose actions and feelings he is invited to try to understand in terms of his own experience. Equally importantly, stories read are drawn upon as a means of making sense of the objects, people, and events in his day-to-day environment. (1985, p. 245)

The comparative research by both Heath and Wells suggests that the quality of the language used by parents and children during book read-
ing is important in the child’s development: certain kinds of verbal interactions are correlated with success in literacy in the context of schooling. Not surprisingly, parent–child book reading has been the focus of much research activity in the past decade and several comprehensive reviews explore the breadth of this work (Teale 1984, 1986).

The present study seeks to extend our understanding of parent–child book reading by focusing on the language of parent–child book reading activity, to describe the uses of language that the child develops. These uses of language comprise an accumulated knowledge, built up over several years of joint book-reading experiences, which the young learner brings to her or his school reading instruction. In order to address the issue of knowledge accumulated over the preschool period, the research examined the activity of a small number of children of several ages over a relatively long period of time1 and observed their activity in its “naturally occurring context” of homes.

THEORETICAL FRAMEWORK

Notions of context specificity inform contemporary views of human action. Where once researchers held notions about generalized competencies and cognitive skills, newer conceptions refer to specific contexts of activity based on research findings that have displaced the notion of generalized cognitive competencies (e.g., Newman, Griffin, & Cole, 1989; Scribner & Cole, 1981). In investigations across a varied range of disciplines – cognitive and developmental psychology and psycholinguistics to ethnography of communication, linguistics and sociolinguistics – there is an emerging consensus about the centrality of context in the processes of human action. For example, Rogoff and her colleagues have argued that from the perspective of functional theories, “ways of thinking and behaving are not characteristics of the person separate from the context in which the person functions” (Rogoff, Gauvain, & Ellis, 1984, p. 556). No longer can cognition and context be considered separately but instead they must be studied as an integrated system, “to consider the systemic relation between all aspects of context and the action of the person in the integrated cognitive event” (Rogoff, 1982, p. 126).

An important task, then, for understanding human action and human development is the description of significant contexts in which development takes place. Following the work of L. S. Vygotsky (1978, 1987) theorists (e.g., Laboratory of Comparative Human Cognition [LCHC], 1983; Rogoff, 1982; Rogoff, et al. 1984; Wertsch, 1985) have argued that context – conceived in the comprehensive sense as both the immediate
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context of social interaction and the larger sociohistorical context in which that interaction is generated – is the significant unit in the analysis of mind (LCHC, 1983; Wertsch, 1985). Rogoff et al. (1984, p. 557) have summarized the approach this way:

Rather than focusing on individual responses to environmental stimuli as the unit of analysis, the Vygotskian approach focuses on the concept of activity. . . . The cultural practice theory of the [Laboratory of Comparative Human Cognition] . . . focuses on activity by identifying "socially assembled situations" as the unit of analysis rather than working from characteristics of individual persons or cultures. "Socially assembled situations" are cultural contexts for action and problem solving that are constructed by people as they interact with one another. Cultural practices employed in socially assembled situations are learned systems of activity in which knowledge consists of standing rules for thought and action appropriate to a particular situation, embodied in the cooperation of individual members of a culture.

Such a theory emphasizes "the practice of socially constructed modes of thinking, where cognition involves doing goal-directed action" (Rogoff et al., 1984). In related work, Scribner and Cole (1981) defined "practice" as "a recurrent, goal-directed sequence of activities using a particular technology and particular systems of knowledge" (p. 236).

As contexts in which children learn, a "socially assembled situation" at home is likely to differ significantly from the socially assembled situations typical in other settings such as schools. The purposes and goals of apparently similar activities – such as reading – may differ and the relationships and roles of participants will differ as well. At home, the purposes and goals of an activity are usually continuous with the child's ongoing experiences and valued by others in her intimate social network. The child's active participation will be a pivotal factor in the home situation, where the choice to withhold participation or to participate on one's own terms or in one's own way exerts a definitive role. By contrast, at school the purposes and goals of an activity may be difficult for a child to understand and a child's lack of participation can go unnoticed and unnoted. At home, the child's participation is the sine qua non: if the parent, for example, wants book reading with the child to occur, a way must be found to engage the child's active involvement. "Apprenticeship" has recently been used to refer to such teaching/learning relationships in which teacher and learner collaborate on the activity and where the learner's participation is under his or her control (John-Steiner, 1985; Rogoff, 1990). Unlike activity in formal and group learning environments, the one-to-one relationship of apprenticeship cannot proceed in a one-sided manner. As Rogoff (1986) explains,
adults do not work alone. If children give no feedback or guidance as to their needs or understanding, adults can do little. .. . Children play an active role in their own learning. Not only do they assist the adult in setting the level of the lesson; through their motivation and self-directed attempts to learn, they require the adult to provide information or help. .. . together the adult and child manage teaching and learning in a process of *guided participation.* (emphasis in original)

The adult’s guidance consists of the way he or she structures the situation on several levels, such as the assignment of roles in the activity as well as the verbal guidance along the way. In studying parent–child book reading, I found parents’ structuring to be of central importance (Panofsky, 1987). In all of the families, children were given the role of selecting which books to read and in every case this was a role assignment which carried more than a negligible amount of power: parents sometimes expressed a dislike for one of the choices or a preference for a book to which the child objected, and occasionally went to great lengths to try to coax or cajole a change, but it was always the parent who gave in. It is interesting that even when parents claimed to “hate” a particular book, they would not overrule the child’s choice. Yet these were not notably “permissive” parents, nor were such incidents limited to the observation periods. The explanation is that overruling the child’s authority in this way would threaten to undermine the child’s desire to participate; the boundaries of the activity were under the child’s control. Indeed, there were many ways in which book reading seemed to be a kind of privileged and protected activity. Not only were children given the role of choosing books, but also they tended to control both the initiation and conclusion of book-reading activity. Parents almost never refused a child’s request to read and they routinely gave in to requests to “read one more,” even when they wanted the session to end. Parents also structured the interaction during book reading in a reciprocal way: if children pointed to a picture or asked a question when the adult was reading, these actions were never treated as interruptions as they would have been during other activities but were welcomed as opportunities for dialogue. Indeed, these multiple levels of structuring could not have been better designed to provide for lengthy sessions of talking about books.

For the participants in this study, the socially assembled situation of book-reading activity was structured to maximize the active participation of the children and to support their progressive “appropriation” of various parts of the activity. “ Appropriation” refers to the developmental process in which as novices children first learn to *respond* to a given action or use of language by another and, with time and experience, begin to “take over” in Bruner’s words (1983) the function as shown by
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their ability to now initiate an action or use of language that earlier they could, at most, respond to. This shift, revealing the takeover of strategies and processes of the expert by the novice, has been documented in many studies of book-reading activity by Snow and her colleagues (e.g., Snow & Goldfield, 1982; Snow, Nathan, & Perlmann, 1986). What has been examined in much less detail has been the varied functions of language during book-reading activity.

THE STUDY OF LANGUAGE FUNCTIONS

In several approaches to the study of language, a concern with the functions of language in social context has occupied a central place. In both the functional-systemic tradition identified with Halliday (1978, 1985) and the ethnography of speaking approach articulated by Hymes (1972, 1974), prominence is given to the “context of situation” in the examination of language. In both perspectives, language is seen as variable depending on a set of social factors, including domain, activity, participants, and community. Hymes argues that

since every community has a variety of linguistic means, speaking always entails a choice (deliberate, spontaneous, automatic) among them. From the standpoint of communication in general, this extends to the choice of speech itself, as opposed to other means (vocal, gestural – a whistle, a scream, a note, a turning away), and as opposed to silence. . . . Whether one speaks, and, if one speaks, the way in which one speaks, are elements of choice and hence of the meaningfulness of language.

To deal with language from this standpoint, we may make use of a concept that has come to prominence . . . the concept of verbal repertoire. . . . The term properly implies that people have available a variety of ways of speaking. We may understand verbal repertoire more precisely in terms of two interrelated aspects of speech. There are the means of speech that people have available, including the meanings associated with the use of one or another of these; and there are the contexts of situation in which speech is used, including meanings associated with these. . . . The set of patterns relating means of speech and contexts of situation may be said to constitute the ways of speaking of a person, a group, or a community. (1972, pp. xxiii–xxiv, emphasis in original)

Halliday has commented extensively on the patterning of speech in various contexts, elaborating on the constraining dimension of context (1973, 1978, 1985). In an early proposal for a contextual view of language use, Halliday argued that much of our speech in daily life takes place in
fairly restricted contexts where the options are limited and the meaning potential is, in fact, rather closely specifiable. Buying and selling in a shop, going to the doctor, and many of the routines of the working day all represent situation types in which language is by no means restricted as a whole, the transactional meanings are not closed, but nevertheless there are certain definable patterns, certain options which typically come into play. . . . When we talk of “social functions of language,” we mean those contexts which are significant in that we are able to specify some of the meaning potential that is characteristically, and explainably, associated with them. (1973, p. 347)

This notion of the contextual constraints on language brings us full circle to our original notion of situated activity. Context refers both to the immediate and ongoing social interaction of the assembled participants, as well as the sociohistorical dimension of the socially assembled situation and the cultural practices of those participants. The sociohistorical context both constructs or provides for the socially assembled situations in which participants operate and constrains the interaction of which their practical activities are comprised. To understand what is going on during any specific book-reading event, one must know the recurrent properties of the activity (which can be taken as indicating, if not fully revealing, its sociohistorical embodiment). Such an investigation is a hermeneutical process, rather than a linear one, with recursive steps back and forth between the two levels of analysis. Understanding the patterns of decision making and reciprocal interaction discussed earlier were central in conducting the analysis of language functions.

In order to analyze the functions, then, it is necessary to incorporate the sociohistorical elements of parent–child book-reading activity in the families who were studied. From Heath’s (1983) study in three communities, one would not necessarily expect to find the same set of elements, the same “context” of activity, in all families. However, because the families participating in my study shared a common set of beliefs and practices regarding literacy (while differing in economic status and ethnicity), it was not surprising that they “organized” the activity in the same way as well. The most important aspect of this organization was the child-centered focus of the pattern, as manifested in the two elements referred to earlier: (1) the adult’s authority as decision maker was subordinated to the child in that the child had a significant or controlling role in all decisions that were related to his or her interests (e.g., which books to read, the sequence of choices, the repetition of choices, the concluding of the activity); (2) the speaking roles were “egalitarian” in that any interruptions by the children were accepted. These elements are deeply consistent with what LeVine (1980) calls “the egalitarian ideology of middle-class America as applied to the relations between
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generations” (where “middle class” is taken as designating a cultural orientation rather than simply economic status). Cross-cultural studies of child rearing and child development have helped to illuminate this ideology, which LeVine (1980, p. 78) captures in a useful way:

Middle-class Americans place a great deal of emphasis on self-confidence and self-reliance in individual development. They see their young children as needing a great deal of enthusiastic encouragement to acquire the confidence in themselves that will enable them to become self-reliant, equipped to meet the challenges of life without undue dependence on others. Hence the interest in and emphasis on talking to babies, responding to their slightest attainments with applause, and continuing to use praise as a reinforcer as the child gets older. The model implicit here is one of pumping encouragement in during the early years to obtain the child’s autonomy later on. At first you try to make a child feel good about any initiative he or she takes, and later you selectively but enthusiastically give verbal approval to displays of self-reliant behavior. (emphasis added)

Such displays of behavior to the parent, which rely on reciprocal roles in dialogue, are central to what the child is learning. Given the value placed on those displays, it is not surprising, then, that parents expend considerable creativity in promoting the child’s active participation through language – generating in language the varied possibilities for display. In this way, parents “managed” the cognitive and affective quality of the activity, providing ways “to relate” to the text both with thoughts and feelings, and serving the dual purpose of engendering enthusiasm for reading and skills for school success. After four years of this nightly apprenticeship, children can easily reverse roles to play the teacherly questioner with younger siblings or provide elaborate explanations of character and plot.

In the study of language functions, there has been a long-standing distinction between two major functions or uses of language (Brown & Yule, 1983). One function “serves in the expression of content . . . and [the other is] involved in expressing social relations and personal attitudes” (Brown & Yule, 1983, p. 1). The expression of content can be called a representational or ideational function, while the expression and regulation of social relations can be called an interactional or relational function. Not surprisingly, this same global distinction was found in the discourse of book-reading activity. However, what may seem surprising given other research is that the representational function predominated. I refer to this as potentially surprising because although there has been extensive research on children’s use of interactional language functions (e.g., Ervin-Tripp & Mitchell-Kernan, 1977), comparatively little work has addressed the use of language for the ideational or
representational "axis" of language function. Such language, however, is likely to be needed for successful participation in classrooms. An important point is that bedtime storybook reading comprises an intensely focused activity in which the representational functions of language are given primary attention.

In fact, for much-read-to children, book reading interactions may be seen as a "leading activity" (Meacham, 1977, p. 227) in the development of language for representation:

At each stage in development, a particular activity can be characterized as a "leading" activity, not because it is most frequent, but rather because it is within the context of this activity that mental processes are reorganized and new activities are differentiated. The sequence of leading activities depends on the specific social and historical conditions of the developing child.

The use of representational language certainly occurs in domains other than book-reading activity. Yet the intensity, focus, and recurrence of these dyadic sessions lasting at least a half hour and occurring every night seem to set this activity apart from other speech situations.

**THE TAXONOMY OF LANGUAGE FUNCTIONS**

With this fuller understanding of the context of book reading, we turn to the detailed discussion of the functions of language during the activity. As mentioned earlier, there were the two global functions, interactional and representational. The interactional functions related to the activity itself - talk that negotiated what would be read and when; the interactional functions initiated and ended the activity and the sequence of different books which were read during the activity. Thus, the actual reading was bounded by the interactional language function. Even the youngest participants in the study seemed fully able to control the interactional functions of language: from the beginning of the study even the 2-year-olds were able to initiate, as well as respond to, all of the subfunctions of interaction. These included regulating self, other, and objects to accomplish control at the activity level:

"Read this now." (Child directs sequence of stories)
"You sit there." (Child directs seating arrangement)
"Me hold it." (Child physically controls the book)
"I turn." (Child controls page turning)
"Not yet." (Parent controls appropriate time for page turning)

Between beginning to read and ending each text, the use of interactionals occurred very rarely, only to signal who or when to turn pages or
to “repair” the text-based conversation when one participant didn’t understand the other (typically when the parent wasn’t sure what the child had said). Most interactionals occurred during negotiation of activity beginnings and endings and for book choice, much like negotiating the agenda and the adjournment of a meeting. Overall, the interactional function accounted for 5 to 15 percent of the utterances during any 30- to 50-minute session. Since “off-task” talk rarely accounted for even 1 percent of the utterances during any total book-reading session, the amount of representational talk was 85 to 95 percent of all the talk that occurred during book reading activity. Where interactional talk was activity-related, representational talk was text-related. Interactional language was used to negotiate the activity, while representational talk was used to negotiate the meanings of text. In this talk, as we will see, children were developing a variety of ways for representing text and self in relation to text – an early and important subset of representational functions of language that are valued in school activities.

THE REPRESENTATIONAL FUNCTIONS

This text-related or representational discourse comprised a seemingly large and varied set divisible into seven subfunctions. Despite this variety, however, the discourse should be seen as constrained – the set of “allowable options” that bounded the discourse. The seven functions were identified as follows: attentionals, pictorials, connectives, inferentials, emotives, imaginatives, and recitations.\(^2\)

Pictorials, connectives, and inferentials were the most frequently used, but all participants utilized all of these functions, and the use of the functions varied developmentally both for individuals and across ages.

The discussion that follows gives a definition and several examples of each function, followed by a discussion of several passages from the transcripts.

Attentionals are utterances in which one of the participants seeks to orient the attention of the other participant through verbal and nonverbal means such as “Look” accompanied by pointing. Attentionals were typically followed by a pictorial or a connective.

Pictorials are utterances in which joint attention of parent and child was focused on a picture and verbal information was added to make sense of the picture. This verbal information was of two kinds: informational or indicative utterances such as labeling (“That’s a butterfly”) or specifying of attributes (“It’s upside down!”); and interpretive or inferential utterances (in the sense of interpreting or inferring conventions) about pictures. The following set of utterances illustrates these possibili-
ties: “See the tear? He’s crying.” Here the first utterance is indicative and the second is interpretive.

Connectives are utterances in which a connection was made as a kind of strategy for making sense of text. Connections were made within and between text (intra- and inter-textual), and between text and self or text and world (extra-textual). Connectives may be used to connect any of the following combinations: picture-text (“Where’s the little house?”); text-text within the same story (“Remember it said”); text-text between two stories (“That’s like in the other story when”); text-self or picture-self in terms of past experiences (“That’s what you look like when you jump off high places”); text-self or picture-self in terms of acting out (“I can make a face like that”); text-world knowledge or picture-world knowledge (“They make suitcases out of alligator skins”).

Inferentials are utterances in which comments or questions go beyond the text (or beyond the conventional inferences referred to under pictorials). These include predictions or evaluations about the why or how of events or things, such as “Do you think the fish will like the cake?”; predictions or evaluations about the why or how of character’s actions, or talk of feelings, such as “He should try to get it by climbing up the tree, then . . .”; personal extrapolations (“If I were there, I would . . .”) and extrapolations that refer to another participant (“If you were there, you would . . .”); and metacommunication about words and stories, including explanations of word meanings and discussions of “what’s real” (such as “That shows he’s just dreaming”).

Emotives are utterances that express or identify feelings. Several subfunctions were identified: explicit or expressive utterances of own feelings or opinions (“Oh, no!” or “This is scary!”); explicit or expressive utterances about another’s feelings or opinions (“I bet he’s scared”); and laughter and other paralinguistic responses to text.

Imaginatives are utterances in which the child acts out the role of a reader or of a participant in the text. Three subfunctions were identified: word play, such as spontaneously making up rhymes or elaborating on text; mock reading that is nonsensical but readerly (it “sounds like” the intonation of oral reading); and answering text-embedded questions (when this is contrary to the parent’s expectation, rather than following a preestablished parent–child routine).

Recitations were utterances in which the child recited actual or textlike utterances, and which were either elicited by the parent, initiated by the child, or were a kind of spontaneous shadowing or anticipation. Four subfunctions were identified: initiations by the child which were memory-based; elicitations, prompts, or corrections by the parent; text-echoing; and content anticipation by the child (such as at the point of page turning when a phrase is divided between two pages).
In global terms, the emphasis on various functions, as reflected by their differential usage, was found to shift as follows:

1. interactions with the youngest children tended to focus on conventions of labeling and pictorial interpretation and thus relied extensively on the attentional and pictorial functions;
2. interactions then shifted focus to the creation of extra-textual connections between the text and the child's knowledge and experience of self and world outside the text and thus came to rely more extensively on the connective function;
3. interactions next led to discussions and interpretations of physical and psychological aspects of actions and events in the text and thus relied increasingly on the inferential function.

Although the use of the functions has been presented in a numerical sequence, this should not be taken as suggesting a stagelike model. For one thing, stage models imply "moving beyond" some earlier stage and "not going back," yet even the oldest children sometimes used functions and strategies that typified the activity of the least experienced children, and even the youngest children were able to participate in the use of all functions to some degree.

A selection of data focusing primarily on the three dominant functions – pictorials, connectives, and inferentials – will illustrate their use in context. One of the children in the middle age-group, a boy of 4;1 at the time of a midyear session, provides evidence of impressive development, especially in the use of the connective and the inferential functions. The session began with a first-time reading of *Curious George flies a kite* by H. A. Rey (1958). Although this book was unfamiliar to both parent and child, they had read several other Curious George books many times before; just as the mother began reading, the child announced "I'm going to be Curious George when I grow up," as he sat with a monkey-doll beside him which he called Curious George. Early into the story, the child reiterated this claim, demonstrating a use of connection between self and text. (Utterances illustrating functions to be discussed will be in boldface and referenced by numbers in the margin; italicized portions are written text):

**Example 1**

M: George could do a lot of tricks with his ball too. *This was one of the tricks.*

_He could get up on the ball like this or he could do it this way with his head down. *This was another trick George could do, he could hold the ball on his head like this._

1 C: I can do that. I'm going to be Curious George when I grow up.

M: You're going to be Curious George when you grow up? I think you already are. *Look, no hands. What a good trick. But where did the ball go?*_

C: [unintelligible]
M: You aren't Curious George yet? George ran after it. The ball had gone into another room. There was a big window in the room but George liked to look out of that window. He could see a lot from there. He let the ball go and looked out.

2 Do you see the window? [looks to C]
C: [nods]

3 M: Where's the window in the book?
C: [points]
M: There it is. George could see Bill on his bike and a lake with a boat on it. George could see a big house with a little garden and a little house with a big garden. The big house was the house where Bill lived. But who lived in the little house. George was curious. Who could live in a house so little?
C: I don't know.

4 M: Where's the little house?
C: [points]

5 M: That's the big house. Look, look. [pointing]
C: Oh, look at that.

6 M: Yeah, that's a little teeny weeny house. Who could live there?
C: I don't know.
M: George had to find out so he went to the big garden. The garden had a high wall, but not too high for a monkey. George got up on the wall. All he had to do now was jump down so George jumped down into the big garden.

7 You jump off of things like that, don't you? That's how you look [pointing] when you come jumping down.

8 C: Yeah, out of the window.

Throughout this sequence, we see the participants jointly constructing a variety of connectives. In the exchange about the big house and the little house, the message is that one expects a correspondence between the words in the text and the pictorial representation on the page. Although parents never directly and explicitly state such an expectation, there is considerable evidence suggesting that children in the study all came to internalize such an expectation. The initiation of connective questions by parents were routinely answered by children with increasing success. Additional evidence is that the children asked text-picture questions when they could not find the picture corresponding to something mentioned in the text, sometimes even saying, “I can’t find the [thing mentioned in the text].”

In the sequence referring to “jumping off things” the mother does not say, didactically, that one should look for connections with one’s own experience. But by indexing experiences from other domains known to the child, adults enact such connections, and in the later data there are numerous instances of children enacting such personal connections independently.

The connective function also involves intra-textual and inter-textual
The role of parent–child book reading connections. In the former, the procedure is to look for a connection with another point, earlier or later, in the text; in the latter, the procedure is to identify a connection with another text. In the following example, the parent responds to the child’s puzzlement by indexing the notion that upcoming text is likely to answer current uncertainty:

Example 2

M: The bunny was off like a shot. George did not look; now he had to wait a little. One, two, three, four, he waited.
C: Then when, how he got him?
9 M: How did he find him?
C: [Nods]
10 M: Let’s find out [turning page].

In the next episode, after the baby bunny has been safely returned to its house, there is a picture both mother and child are unsure about. The mother plays out the “mystery,” which is also in the text, by using picture interpretations:

Example 3

M: When he came to the wall, he could see something funny in back of it. George got up on the wall to find out what it was.
11 What do you think that is?
12 C: Um, a hitter.
M: A hammer?
C: No, a hitter, like when you hit something.
M: Oh, a hitter, like a stick or something.
C: [nods]
M: He saw a long string and a long stick. A fat man had the long stick in his hand. What could the man do with the stick that long? George was curious. The fat man was on his way to the lake and George was on his way to the lake too.
13 What does the man have?
14 C: A fishing pole.

At the end of the story, we find an example of the child initiating an inter-textual connection.

Example 4

15 C: . . . Remember that one that has the elephant when he blows up the balloon?
16 M: Oh, yeah, when he got a hold of balloons –
17 C: Yeah, den he tried to get down, den he landed on a tree, den he gave all of the balloons to da circus, huh?
M: Uuhuh.
C: Dat was neat, huh?
This is a rather surprising example of inter-textual understanding. Yet, it is important to recall that this child was extremely fond of Curious George stories and the Curious George character, and the story with which he connects had been read many times and recently. At the same time, his ability to make this connection suggests a significant involvement with these materials and helps to account for the inferential understandings to be explored next, which are surprising for a child of his age and for a first time reading.

**Inferentials**

Early in the story, Curious George lets a baby bunny out of its cage to play with it in a walled-in garden, and the bunny disappears; after the disappearance, George goes to search for a piece of string:

Example 5

M: . . . George took the string and went back to the bunny house. See that little bird? Do you know what he’s saying to George?
C: What?
M: He’s saying “bad monkey.” *Mother bunny was at the door. George let her out and put the string on her and Mother Bunny knew what to do and away she went with her head down and her ears up. All George could do was hold the string and run after her.*

18 What do you think Mother Bunny is going to do?
19 C: Find.
   M: Find the baby bunny?
   C: [nods agreement]

The exchange of interest begins at the end of the mother’s second turn: “What do you think Mother Bunny is going to do?” The child is asked to predict what will happen next. The answer is implied but not directly stated in the foregoing text. The mother initiates this inferential question, and the child knows how to respond appropriately.

In the next example, the child’s question indicates that he is able to initiate appropriate predictive questions as well. Here, Curious George is fishing from the end of a dock:

Example 6

M: George looked into the water; that big red one there with a long tail. He was so near, maybe he could get it with his hands. George got down as low as he could, and put out his hand.

20 C: Will he fall in dere?
   M: What?
   C: Will he fall in dere?
   M: Will he fall in there? I don’t know, let’s see. [turns page] Oh, you were
right! Splash, into the lake he went. The water was cold and George was cold and wet too. This was no fun at all.

21 C: He shoulda just got his two hands down dere, den put his feet on dere [pointing].
M: Yeah, he could have hung on to the dock with his feet, 'cause his feet are like hands, aren't they?

First, the child asks, “Will he fall in dere?” accurately predicting what will happen, and later speculates on what the character “should have” done. Later, the child initiates another speculative sequence, excitedly breaking in while his mother is still reading. This time he speculates about how George could “rescue” a kite from a tree:

Example 7
M: . . . They let the kite fly for a long time till Bill said “I will get the kite down now. I must go home and you should too.” But when Bill pulled the string in the kite got into the top of a high tree. Bill could not get it down. “Oh my —

22 C: You know how — he can climb and get in dere and den he can, den he will find it, and den he will get dat part dat he will put down.
M: That might be a good idea. “Oh my fine new kite. I cannot let go of it. I must have it back,” said Bill, “but the tree is too high for me.” But no tree is too high for George. He went up to the top in no time. Then, little by little, he got the string out of the tree. You were right, John. George is a monkey, and monkeys can climb. Down he came with the kite. . . .

A little later in the story George is left alone with the kite. He tries to fly it and is carried into the air by the kite. In this example, the mother initiates an inferential comment about the monkey’s internal state to which the child replies with another rescue plan. However, the mother responds by citing previous textual material that invalidates his plan. Finally, when George is rescued, the child infers his emotional response:

Example 8
M: George did not like it one bit. He wanted to get down, but how? Not even a monkey can jump in the sky. George was scared. What if he never got back, maybe he would fly on and on and on. Oh, he would never, never be so curious again, if just this one time he could find a way to get home. Poor George. He’s scared up there.

23 C: Yeah. How ’bout, how ’bout he let the kite go away up in the sky and then he can jump in the pool.
M: He can jump in the water? It said that he couldn’t jump in the sky that high, not even a monkey can. Hummmhumm. What was that? George could hear something and then he saw something fly in the sky just like a kite. It was a helicopter and in the helicopter, hooray, was the man with the yellow hat. Look.

24 C: He’s happy, huh?
Table 8.1. Percentage of each utterance function initiated by the parent (P) and child (C) during selected sessions throughout the year

<table>
<thead>
<tr>
<th></th>
<th>1st quarter</th>
<th>2nd quarter</th>
<th>3rd quarter</th>
<th>4th quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P</td>
<td>C</td>
<td>P</td>
<td>C</td>
</tr>
<tr>
<td>Connectives</td>
<td>37</td>
<td>5</td>
<td>45</td>
<td>25</td>
</tr>
<tr>
<td>Inferentials</td>
<td>21</td>
<td>4</td>
<td>31</td>
<td>6</td>
</tr>
</tbody>
</table>

At the end of this episode of the monkey's rescue, the child recalls a strikingly similar episode in another Curious George story, which was discussed earlier as an example of inter-textual connection.

During the reading of *Curious George flies a kite* there were various connective and inferential questions and comments initiated by both the parent and child, along with other functions. Table 8.1, which includes both connective and inferentials from sessions throughout the year, presents a picture of change in the percentage of initiations by this parent and child of each function.

The increasing use of various functions emerged first in the questions and comments of the parents and were gradually appropriated by the children. At the beginning of the year, we see that almost all initiations of both connectives and inferentials are made by the parent. The fact that less than half of all connectives and only a quarter of all inferentials are initiations means that the rest are responses or follow-up discussion and suggests that considerable follow-up is required to enable the child to understand and participate in the use of the functions. At the second quarter, the child has begun to initiate a substantial percentage of connectives but still initiates only a few inferentials. In addition, connectives require substantially less follow-up discussion, as 70 percent are initiations; at this point, then, we see the child shift from participation in the use of connectives that is dependent on the adult to the child's independent control (in the form of initiations) of this representational function.

In the third quarter, the child also exhibits significant control of the inferential function, and by the end of the year his use of both the connective and the inferential functions shows clear independence by outnumbering the adult's use of either function by nearly two to one. In the last two quarters the number of connectives that are initiations has declined to less than half of all utterances coded as the connective function, which seems anomalous in view of the earlier interpretation of low percentages reflecting the need for follow-up discussion; however, now
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the responses appear to reflect parents' tendency to restate or extend the child's initiations, rather than to make sure the child understands. An example of parental restatement and extension occurs at the end of example 5 when the mother agrees, "Yeah, he could have hung on to the dock with his feet, 'cause his feet are like hands, aren't they?"

CONCLUSION

The shift in the use of functions from a predominance of parent initiations to a predominance of child initiations shows the development of cognitive processes modeled by Vygotsky (1978, p. 57):

Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological), and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relations between human individuals. . . . The transformation of an interpersonal process into an intrapersonal one is the result of a long series of developmental events. (emphasis in original)

It is important to see the development of cognitive processes as social in origin, rather than individual, in the way that Vygotsky does. Cognitive processes, such as those reflected in the language of the preschool child highlighted in this discussion, develop in recurrent and intensely focused social interactions like those which occur during book reading. Access to opportunities for participation in such valued social practices is crucial. It is important to note that Vygotsky refers to the child's "cultural development" because he is concerned with the development that takes place in the sociohistorically constituted, or cultural, practices of the child's world. Increasing numbers of scholars are coming to speak of culturally valued practices, genres of power (Lemke, 1988) or simply a "culture of power" (Delpit, 1989) that operates in our schools. Lemke (1988) argues that "education does not do enough to empower people, to place in their hands tools they can use for their own purposes and the skills to use them."

By identifying the specific and varied representational functions of parent–child discourse during book reading, as well as the interactional processes of such exchange, this research offers a way to model instruction for children who have not had the advantage of such apprenticeship before formal schooling. Research by McCartney (1984) suggests that schools can impact development in the way I am suggesting. She found that, regardless of family background factors, the ways that language was used in teacher–child interactions in preschools had a significant impact on the development of cognitive-language processes in children.
As educators, our task is to foster children’s interaction with the language of valued social practices.

NOTES

An earlier version of this paper was presented at the Fifth International Congress for the Study of Child Language, Budapest, Hungary, July 15–20, 1990.

1. The language of parent–child book reading was investigated during a longitudinal ethnographic study of family book-reading events in the homes of six preschool children. Families selected were ones in which shared book reading was considered to be an essential element of children’s early experiences. The children were selected to cover the range of ages from 2 to 6, and were observed periodically for a year. At the beginning of the year, two of the children were approximately aged 2;0, two were 3;6 and two were 5;0. At each age there was a child of each sex and one whose family background was identified as Hispanic and one as Anglo. Naturally occurring book-reading events were observed in each of the homes every 6 to 8 weeks, to provide data from 36 sessions. Each session, lasting 30 to 50 minutes, was audiotaped and a third of the sessions were also videotaped; field notes were kept on all sessions and all audiotapes were transcribed.

2. The designation of the functions has been modified from earlier versions (Panofsky, 1987, 1989) in which pictorials were labeled as referentials, connectives were labeled procedural, and attentionals were one of the subdivisions of procedurals.

REFERENCES


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Teale, W. 1984. Reading to young children: Its significance for literacy develop-


