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ABSTRACT

This study provides longitudinal observations of young children's behaviors while viewing television in their own homes, over a time when the children were actively involved in the process of language acquisition. A total of 16 children were observed for a period ranging from 6 to 8 months. At the beginning, their ages ranged from 6 and 1/2 to 29 and 1/2 months. The observations yielded documentation of an overwhelming and consistent occurrence of language-related behaviors among children and parents in the viewing situation. The categories of child and adult talk are reported, with description and examples of each category. Categories of children's verbal behavior included designating through pointing, pointing and speaking unintelligibly, verbal labeling with or without pointing, and pointing with a question; questioning about television content by using "wh" and form questions, questions relating to self, and operative questions; repetition; and description. Categories of caretaker verbal behavior included designating through attention calling, labeling, correcting, and requesting a label; questioning; and parent responses to the child involving repetition, acknowledgement, directing behavior, and answering questions. The categories are compared to those reported for parent-child interactions outside the viewing experience, in particular, joint book reading. A model of television as a talking picture book is proposed. (Author/RH)

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Television as a Talking Picture Book:

A Prop for Language Acquisition

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ABSTRACT

This study provides longitudinal observations of young children's behaviors while viewing television in their own homes, over a time when the children were actively involved in the process of language acquisition. Sixteen children were observed for a period ranging from 6 to 8 months. At the beginning, their ages ranged from 6 1/2 to 29 1/2 months; at the end, from 14 1/2 to 36 months of age. The observations yielded documentation of an overwhelming and consistent occurrence of language-related behaviors among children and parents in the viewing situation. The categories of child and adult talk are reported, with description and examples of each category. The categories are compared to those reported for parent-child interactions outside the viewing experience, in particular, joint book reading. A model of television as a talking picture book is proposed. It is argued that television has the potential to serve as a facilitator of children's language acquisition.

INTRODUCTION

The language learning environment of the young child has been the topic of many investigations during the past decade. Early on, Gordon Wells (1974) defined the ideal language learning environment as "a shared activity with an adult in which the adult gave linguistic expression to just those meanings in the situation which the child was capable of intending, and to which they are at that moment paying attention" (p. 267).

Investigators have focused on two of the aspects delineated by Wells. The one that has dominated the literature is that of the adult's linguistic expressions directed to the child. An extensive literature now documents the phenomenon of a simplifed speech register directed toward children (e.g. Hoff-Ginsburg & Shatz 1982, Snow 1984, Snow & Ferguson 1977). Adults tend to adjust their speech to young children in a manner that corresponds to children's limited linguistic abilities and to their immediate interests and cognitive capabilities. The contribution of simplified input to children's language development remains unclear. Initially it was presumed that the special child register was both a necessary and a sufficient condition for language acquisition. The strong claims have been challenged by difficulties in determining specific characteristics of simplifed input grammar that correspond to particular aspects of syntactic development (Gleitman, Newport & Gleitman 1984, Hoff-Ginsberg & Shatz 1982, Shatz 1982), and by reports of extreme cultural variability in input patterns (Heath 1983, Schieffelin & Eisenberg 1984). While the extent to which simplified input is sufficient or necessary is debatable, there is general agreement that it can be facilitative of children's language learning. Redundancy and semantic contingency (adult utterances based on the content of child's utterances) are two features identified as contributing to language acquisition (Snow 1984, Wells 1985).

More recently, a second aspect of the ideal language learning environment has been studied, that of the nature of the activities that adults share with children. The activity that has been most explicitly linked with language acquisition is joint book reading. Mothers tend to read picture books with their children in an interactive dialogue-like structure that is a format well suited to teaching children labels for things and people (Heath & Branscombe in press, Ninio 1980, 1983, Ninio & Bruner 1978).

Snow and Goldfield (1983) argue that two features of book reading contribute to children's language acquisition: routinization of the book reading situation and predictability of adult utterances. Parents tend to "read" a child's favorite picture books to the child many times, discussing the same pictures with the same labels and phrases. Children recall the reading situations and accompanying utterances, and eventually learn the repeated parental utterances. Snow and Goldfield call for identification of additional "routinized situations that are recurrent, and provide predictable modelled utterances" (p. 568).

Television viewing is an activity that is routinized, recurrent and provides predictable modelled utterances. It meets these criteria in two ways: First, the medium itself follows routine formats that recur, and it sometimes provides predictable, simplified redundant dialogue. That is especially evident in the case of educational programs for children (Palmer 1978, Rice 1983, 1984, Rice & Haight in preparation). The predictability of content and dialogue is further enhanced by the fact that young children watch reruns of their favorite programs with the same enthusiasm they have for rereadings of their favorite books. This is especially pronounced for educational programs, such as Sesame Street, because the same episodes are deliberately aired a number of times. Second, when young children view in their own homes, they tend to watch familiar programs at predictable times in the presence of an adult caretaker (Lemish 1984).

The claim that children's television viewing is an activity that is relevant to language acquisition is controversial. Clark and Clark (1977: 330) assert that "children seem not to acquire language from radio or television" a conclusion shared by Hoff-Ginsberg and Shatz (1982). This negative conclusion is based on the assumption that the dialogue of television is unsuitable for young children, and that the passive nature of the viewing experience does not provide sufficient semantic contingency of input. Elsewhere, Rice (1983) argues that the dismissal is premature, in part because the dialogue of child-directed programs is adjusted for child viewers (Rice 1984, Rice & Haight, in preparation) and because there is evidence that children learn word meanings when viewing (Ball & Bogatz 1970, 1972) and draw upon television as a source of verbal routines for their own play interactions (Watson-Gegeo & Boggs 1977).

In this report, we describe the viewing context for children at the age of early language acquisition. We present evidence that their viewing is not a matter of passive, solitary consumption of the medium, but is instead embedded in a rich verbal interaction that has strong parallels with mother-child book reading routines.

Toddlers' television viewing

The extent to which television is a meaningful source of language-related experience for young children depends upon the viewing habits of children during the early rapid stage of language acquisition, between 12 and 30 months of age. While a considerable amount of information is available about school-age children, relatively little is known about toddlers' viewing, beyond the fact that young children do view television.

American infants from 6 to 12 months of age are typically exposed to an average of 1 to 2 hours of television daily in their homes (Hollenbeck 1978). By age 2, children attend to (look at) television in an active, purposeful manner (Anderson, Alwitt, Lorch & Levin 1979). In the home situation, when the TV is on children increase the percentage of time looking at the screen from 6% at age 1 to 40% at age 2, 67% at age 3-4, and 70% for 5- to 6-year-olds (Anderson 1983). By age 3 years, American children are regular viewers, averaging more than 2 1/2 hours of viewing daily (Huston, Wright, Rice, Kerkman, Seigle & Bremer 1983). The overwhelmingly favorite show of American preschoolers is Sesame Street. For example, in a study of the home viewing of 320 children, ages 3 and 5, the most popular program for the family's viewing was Sesame Street, which was viewed an average of 2.9 hours per week (Huston & Wright 1983).

Descriptions of toddlers' viewing activities in home settings have not been available. Existing arguments suggest several possible scenarios. One version of children's television viewing depicts the young viewer as a passive victim of the salience of the medium (Singer 1980). According to this perspective, toddlers would be likely to be powerless to resist the mesmerizing, "addictive" appeal of a turned-on television set. At the same time they would not be able to comprehend what they viewed. The rapid stream of changing images would exceed their ability to extract meanings. Presumably, dialogue would be abstract, rapid, and not easily linked to familiar situations (Clark & Clark 1977). This scenario could be characterized as the "television as appealing gibberish" model.

Another account regards the very young viewer as a selective seeker and processer of information. In the "television as intermittently comprehensible" model, children view selectively, attending to those portions of programs that are comprehensible to them (Anderson, Lorch, Field & Sanders 1981). Within this account, children monitor the sound track for cues associated with comprehensible content. For example, they tend to look at the set when they hear children's voices because children's voices denote content intended for children.

These two scenarios share an assumption that television viewing is a private, individual act between the child and the set. The first model, "television as appealing gibberish" rules out any influence on language acquisition. The second model, "television as intermittently comprehensible" allows for a possible facilitative effect, once a youngster has acquired a basic competence with which to interpret the dialogue. A child's preference to view comprehensible content would allow for extension of linguistic repertoires within established domains.

Lemish (1984, in press) reports that her home observations of children ages 6 1/2-36 months of age are consistent with a model of child-as-active viewer. Even young children view selectively and attentively, as they participate in the ongoing stream of social interactions of the household. Toddlers view while they play with their toys, often with other children and adults nearby, while they eat, as they fall asleep, during diaper changes, and as they "help" adults with household chores. Furthermore, they frequently talk about their viewing with available responsive adults. Social interactions with coviewing adults support children's earliest understandings of the medium and, in turn, introduce new concepts to children. The value of viewing is enhanced by the fact that the toddlers' favorite program was Sesame Street. In the observational study, the children averaged 3.6 hours of Sesame Street per week, with minimal seasonal variation.

Prevalence of talking while watching television and when reading books

At the time of the study, there was no information available about the prevalence of conversations with children as they view television or read books. Recent publications provide valuable evidence. Wells (1985) reports on observations of 128 preschool children in their home settings. In his representative sample, the proportion of children's utterances while watching television was 2.7% for 18-month-olds; 3.9% at 24 months; 5.2%, 30 months; 3.3%, 36 months; 4.6%, 42 months; 3.7%, 48 months; 4.5%, 54 months; 4.7%, 60 months; and an overall of 4.2% for the entire age span. In comparison, the proportion of utterances when looking at books and reading was 5.4% at 18 months; 4.8%, 24 months; 5.0%, 30 months; 1.2%, 36 months; 2.3%, 42 months; 2.7%, 48 months; 3.0%, 54 months; 1.9%, 60 months; and an overall of 3.1% for the entire age span. It appears that talking while viewing peaks around 30 months and remains relatively stable through age 5 years. Talking while reading also peaks around 30 months but then declines. Wells attributes the decline to a general tendency of parents to use book looking as a context for the teaching of vocabulary to young children, but after 30 months only a minority of children have stories read to them. It may be that television viewing supplants book reading as a source of joint reference between caretakers and children after the children have acquired a conversational competence with language, somewhere around 3 years of age.

Wells' findings confirms that talking when viewing television is a commonplace conversational setting for young children. Furthermore, the frequency of utterances when viewing is roughly the same as for book reading contexts. Contrary to the emphasis on book reading as a primary context for lexical acquisition, the relative frequency of utterances when looking at books is comparatively low. The most frequent contexts for utterances were general activity (22.8% overall), talking (16.8%), play alone (16.6%), and play with other children (14.3%). As pointed out by Goddard, Durkin, and Rutter (1985), it is not likely that many conversational settings demonstrate the focused emphasis on labeling that is evident in book reading. What is needed is detailed description of other settings, such as television viewing, that share some of the facilitative features of picture book reading.

METHOD

The observations reported here were collected during a participant-observer study designed originally to provide a description of early television experiences in natural home environments, at a time when young children are making the transition from nonpurposeful to early planned viewing. The intent was to study young children's behavior in their natural environment, throughout a relatively long period of time, with minimal researcher obtrusiveness, and with an effort to understand television's role from the viewpoint of the family involved. As notes and transcripts accumulated, the prominence of language in the viewing experience became clear. The naturalistic methodology of the study allowed for examination of this unanticipated aspect of toddlers' viewing.

Sample

A volunteer sample of 16 families in Lawrence, Kansas participated in this study for a period ranging from 6 to 8 months, between December 1982 and July 1983. From birth listings in area newspapers, a random sample of families was solicited by mail. In addition, posters requesting participation were posted in an infant day care center and a preschool. All of the first 16 respondents were included in the study. Altogether there were eight boys and eight girls in this study. At the beginning their ages ranged from 6 1/2 to 29 1/2 months; 1 was 6 1/2 months, 2 at 8 1/2-9 months, 2 at 11 months, 3 at 14 months, 3 at 16 months, 2 at 21 months, 2 at 22 1/2-23 months, and 1 at 29 1/2 months. At the end of the study they were from 14 1/2 months to 3 years of age.

The children's families varied in many aspects including parental income, profession and education; the presence of siblings; life styles; and television consumption and awareness. Two of the families were of mixed ethnic marriages (i.e. one black American father and one Hindo-African father). In the other 14 families both parents were white Americans (with the exception of one English mother), in their late 20s and mid 30s in all but one case of an older couple. Twelve fathers and 14 mothers had college educations. Four fathers and two mothers had high school degrees. In two families the fathers resided outside the home (one in prison and one in another city) and saw their children on the average of once a week. Six subjects had one older sibling, four of which were preschoolers. The remaining subjects were only children.

Data Collection

The 16 families were visited four or five times in their homes. The initial visit included an unstructured, intensive interview about the family characteristics, the total television environment and the child's personality, development, schedule, and television exposure and behavior. The subsequent observation visits were scheduled about every 6 weeks during times when the children would have been naturally exposed to television. Consequently these sessions took place at all hours of the day and evening, including weekends. During these visits the child's behavior around the operating television set was observed for a period from 1 to 2 hours, and manually recorded in detail by the first author. All the child's behavior (verbal and nonverbal, relevant to TV and nonrelevant) in the viewing area was described as well as related behaviors of family members present. The writing techniques included special shorthand developed specifically for the needs of this study. Detailed transcripts were rewritten as soon as possible after each observation session to ensure a high level of accuracy in the detailed description.

In addition, at each visit parents were interviewed about their child's viewing behaviors that occurred between visits, and about behaviors observed by the visitor. Most mothers kept logs throughout the study's period. The logs consisted of tables in which mothers reported on any incident of verbal behavior occurring during viewing and out of the viewing situation, between the investigator's visits. Each entry included: date, time, program viewed, presence of others, and a description of what happened. Mothers were instructed to report in detail new behaviors of their child's repertoire, and to collapse those that were frequent into a general description (e.g., "Baby named objects and characters many times today during Sesame Street"). We are aware that mothers' logs were not exhaustive and therefore the information reported in the tables should be regarded as minimal and conservative based on the assumption that at least some incidents were not reported by the mothers. Two full week diaries of each family member's viewing in 15-minute segments were collected, one at the beginning of the study (winter) and one at the end (summer). Finally, in the last session the parents were also asked about their overall reaction to the study and their perception of the role television has in their lives.

RESULTS

For each child there are observations of talking about television content while he or she viewed, and participation with parents in television-related conversations. Several categories of verbal behavior are evident in the observations. There are four main categories of children's verbalizations: 1) designating objects, characters, animals, and other things on the screen; 2) questioning about television content; 3) repetition of television dialogue or parental comments about television content; 4) description of television content. The four main categories of parental verbal behavior parallel the kinds of child behaviors: 1) designation, 2) questions, 3) responses to child comments, 4) description. Within each category of child or parent behaviors there are identifiable subtypes.

There are strong parallels between these post hoc categories and the categories of interaction reported for book reading. Ninio and Bruner (1978) reported four categories of mothers' utterances: attention vocative, What's that? questions, labels, and feedback (e.g. Yes). Ninio (1980) found five major labeling formats: spontaneous production of labels by the child, production of labels by the child that were elicited by mother's "what-questions," comprehension responses (e.g. pointing) by the child elicited by mother's "where-questions," labeling by mother, and imitation by the child after mother's "say X." Snow and Goldfield (1983) categorized the mother's and child's utterances according to questions, notice utterances, mentioning, repetition, confirmation, and correction. The four major themes of designating, questioning, repetitions, and descriptions are apparent in both book reading and television viewing contexts.

Categories of Child Verbal Behavior

Designating. This category consists of the variety of ways in which children attempted to name or to discover the names of objects, characters, animals, or other things seen on the screen. Efforts to point, call attention to, or label appear throughout the age range studied, from the 6 1/2-month-old infants to the 3-year-olds. An almost compulsive need to give names to television pictures was evident during observations, a finding consistent with children's frequent use of nominals during the early stages of language acquisition (Greenfield & Smith 1976). These attempts to designate took many forms. The subtypes and accompanying illustrative observations are as follows:

1. Pointing. Child points quietly to the screen.

   OBSERVATION: 10 1/2-month-old viewing Sesame Street.

(child points at Big Bird and Robot)

Mother: "Yes, Big Bird."

2. Pointing and speaking unintelligibly. Child points to screen, making unintelligible sounds or babbling in a string.

OBS: 13 1/2-month-old watching Black Beauty.

(child recognized a horse and enthusiastically pointed)

Child: "Baba, baba."

(repeated many times)

3. Verbal labeling with or without pointing. Child points to screen naming object or person either with a proper English word or in another consistently used word, recognized by the caregiver.

OBS: 18 1/2-month-old watching Sesame Street

(child points to a cat)

Child: "Kitty."

(repeats many times)

OBS: 24-month-old watching Mr. Rogers.

(child is very excited)

Child: "Balloon! Balloon! Butterfly! Butterfly! New animal! Another balloon! Birdie, birdie! Another balloon! Another balloon! Another balloon!

The older toddlers often labeled in a more complete sentence.

OBS: 24-month-old viewing Mr. Rogers.

(Mr. Rogers appears)

Child: "There's Mister Rogers. He Mister Rogers."

The children's comments revealed inferential leaps indicative of association beyond the immediate information.

OBS: 21 1/2-month-old watching a PBS announcement.

(child notices a picture of the state capital building)

Child: "Topeka."

(the name of the capitol city of Kansas)

4. Pointing with a question. Child points and questions simultaneously. These observations range from instances as simple as pointing accompanied by unintelligible verbalizations with question intonation (observed often with children ages 10-14 months) to a full sentence requesting a label.

OBS: 24-month-old watching Mr. Rogers.

(child points at man with a balloon)

Child: "What's that"?

Labeling behavior often involved anticipation of the adult's response, such as turning the head toward the adult or direct questioning. Many labeling incidents, however, occurred without the immediate presence of an adult or in a clear self-engagement. Young children occasionally stand right by the television set and quietly whisper labels directly back to the television. A very clear example is the case of an 18-month-old who identified at least a dozen objects during the opening song to Sesame Street. Standing right by the set she pointed at each object as they rapidly changed: baby, mouse, balloon, baby, and so on.

Questioning about television content. This category includes instances of children asking questions other than labeling. The questions reveal the children's attempts to understand what they are viewing. Children's questions also serve to initiate contact with an adult. The following types were observed.

1. Wh questions. The most frequent Wh questions are where, who, why, what, and when. Questions vary in sophistication with the children's chronological age and linguistic skills. Among the many examples are:

   OBS: 24 1/2-month-old watching Sesame Street.

   Child: "What's Grover doing, Mommy"?

   Mother: "He is laying down."

2. Form questions. Child asks simple questions and requests related to television as a medium. These appeared with the older toddlers in the study, and were mainly concerned with program schedules and the appearance or disappearance of characters.

   OBS: 33-month-old watching a cartoon.

   Child: "Where did Smurfs go"?

   Mother: "They are all over."

   Child: "Why"?

   Mother: "They'll be back next week."

   Child: "Why"?

   Mother: "Because we see them on Saturday morning."

3. Relating to self questions. A child asks questions in an attempt to relate events on television to him or herself and the surrounding world. These appeared

occasionally with a few of the children. A mother of an advanced 18-month-old reported in her log that her daughter asked whether Bert (from Sesame Street) loves her and whether the Twinkle Bugs (also from Sesame Street) will hurt her. She also wanted to know if a street cleaning machine she saw on the program was a truck like the ones familiar to her.

4. Operative questions. Child requests to turn the set on and off, to improve the reception, switch channels, or similar activities. While simple in nature, these requests reflect a basic understanding of the television set as an instrument over which parents have some control.

OBS: 10-month-old

Child: "TV turned on."

(with request intonation)

OBS: 24-month-old watching Sesame Street.

Child: "Fix it please, fix it please."

(pointing to screen)

Father: "Is that better? What was wrong with it"?

Repetition. This category includes occasions when children repeated something said on television or something the parent (and rarely a sibling) said that was related to that particular content. This behavior was frequently observed when children were viewing Sesame Street and Mr. Rogers, which are designed to encourage these behaviors. Children usually repeat names of animals, objects, numbers, shapes, and letters.

OBS: 23-month-old watching a commercial.

Child: "Coke is it, Coke is it, Coke is it."

These repetitions of single words or short phrases often demonstrated the child's intent to self-inform, as described by Keenan (1977). The children seemed to recapitulate key words and phrases as a means of reflecting on the information or as a mnemonic device. Snow and Goldfield (1983) report that child repetitions later appear as spontaneous comments. Other repetitions had a playful quality, as if the children enjoyed the sounds of the phrases. Playfulness was especially evident in repetitions of commercial jingles.

Of special interest are those repetitions which include meaningful words for the child and/or were longer than the utterances the child produced on his or her own. The following examples are from the same child.

OBS: 20-month-old

(television was off and baby was in the kitchen)

Child: "Sesame Street is a production of the Children's Television Workshop."

(spoken abruptly without conversational context)

OBS: 23 1/2-month-old

(father has a bottle of beer; child points at beer bottle)

Child: "Diet Pepsi, one less calorie."

(mother reports that no one in the family drinks Diet Pepsi)

OBS: 24-month-old, situation similar to the first example.

Child: "Sesame Street is brought to you by the letter bunny."

These observations suggest the possibility that some young children draw upon television dialogue as a source of unanalyzed chunks of language. It is now recognized that linguistic chunks can serve as a useful bootstrap for children learning language (cf. Heath 1983, Peters 1983). It is not clear whether chunking is a matter of individual strategy or a widely used process, more evident for some children or in some cultures than in others. There were only a few clear instances of television as a source of rote phrases or sentences in this set of observations. The child cited above was the only one with multiple instances. The low frequency may reflect very conservative criteria, whereby phrases that a child could have heard elsewhere were not included in this category. Therefore, the only candidate utterances for models were commercial jingles and routine information, such as opening and closing lines.

Description. The children with relatively advanced linguistic skills often described content seen on television, with interpretation and expansions. Utterances of this kind include instances during viewing and outside the viewing situation.

OBS: 22-month-old viewing Sesame Street.

Child: "Ernie feels sad."

OBS: 24-month-old viewing Sesame Street.

Child: "They are playing with the dog."

The children's descriptions conform to Heath and Branscombe's (in press) definition of an eventcast: a running narrative on events currently in the attention of speaker and listener. Heath and Branscombe argue that eventcasts by adults and subsequent mastery of eventcasts by children contribute to children's development of oral narratives.

Categories of Caretaker Verbal Behavior

The preceding examples illustrate the kinds of children's verbal behavior while viewing. As some examples suggest, children's comments were often embedded in a conversational framework with an adult caretaker. Parents contributed greatly to the initiation and maintenance of their child's talk. We report the categories most typical for this set of observations. These categories parallel and complement the children's categories of talk.

Designating. Like their children, parents in the study frequently identified objects and characters, thereby providing names for their children and practicing familiar ones repeatedly. Designative behaviors were often instructive in nature, although they performed other functions as well.

1. Attention calling. Instances where adults call their child's attention to television by means of a name label produced in an exaggerated, enthusiastic tone.

   OBS: 10 1/2-month-old viewing Sesame Street.

   Mother: "There he goes, there is the dog. See the flowers? Where is the boy, Baby? Where is the boy? Oh! Look! There are your favorite ducks and cows! See the cows! Kitten. Little boy. Look at the kittens. Chicks. Look at the little chicks, Baby."

As parents draw their children's attention to television, they insure a common focus of attention, a condition of joint reference that is essential for learning the relationship between word and referent (cf. Ninio 1983, Ninio & Bruner 1978, Snow & Goldfield 1983). At the same time, they reinforce the child's interest in the medium and convey their judgement that television is an appropriate focus of conversation.

2. Labeling. As in book reading contexts, parents spontaneously provide labels and offer names as a response to their child's pointing or questions.

OBS: 24-month-old watching Mr. Rogers.

Child: "What's that"?

Mother: "Man with balloon. Look, he has a lantern. You see, it gives light."

3. Correcting. Parents correct children's labels by means of requests for clarification, or informing the child he or she was wrong, in a manner similar to book reading routines (cf. Snow & Goldfield (1983).

OBS: 20-month-old viewing a cartoon.

Child: "Doggie."

Mother: "No, that was a bunny, and a cat."

Child: "No, no cat."

OBS: 25-month-old viewing Sesame Street.

Child: "Big Bird."

Mother: "Who"?

Child: "Big Bird."

Mother: "That's not Big Bird, Baby, that's a yellow monster. It looked like Big Bird, didn't it"?

4. Labeling questions. Parents call the child's attention to specific television content by requesting a label for objects clearly known to him or her. These "test questions" have been reported elsewhere as frequent occurrences for American middle-class families (e.g., Heath 1983, Schieffelin & Eisenberg 1984).

OBS: 15-month-old watching Sesame Street.

Father: "What's that"?

Baby: "Frog."

Father: "And what's that"?

Baby: "Hop, hop, hop."

Mother: "What's that, Baby"?

Baby: "Ball."

Mother: "Ball. Three balls. One, two, three."

New labels were often introduced by the parents' label questions, followed immediately by the response.

OBS: 14 1/2-month-old watching Sesame Street.

Father: "What's that? A man"?

OBS: 16-month-old watching Sesame Street.

Mother: "What's this, Baby? That's your favorite program."

Parent questions. Parents directed questions to the child-viewers for many reasons, including to call their attention to television and to demonstrate their own involvement in viewing. They did not necessarily expect an answer in response. For example, parents often asked, "Do you want to watch _____"? Their subsequent behavior indicated that this question was actually an instruction to watch, not a request for the child's preference. Parents who spent a large portion of the child's viewing time completing their own chores would often peek into the room, ask a question to make their presence known, and leave the room with or without an answer. In other instances, parents' questions were clearly aimed at keeping the child alert and thinking during viewing, thereby serving as a monitor of the child's viewing.

OBS: 12-month-old.

Mother: "Do you want to watch Sesame Street"?

OBS: 18-month-old watching Mr. Rogers.

(Mr. Rogers talked about a stethoscope)

Mother: "Do you remember when the doctor used it"?

OBS: 24-month-old watching Mr. Rogers.

Mother: "Do you want to see Mr. Rogers? Look, he's making the balloon speak, like your daddy."

Parent responses to child. While parents initiated interactions, they were as often involved in responding to the baby in a variety of ways.

1. Repetition. Parents repeat after the child (and occasionally directly after the TV), often expanding, correcting, clarifying, or interpreting in the process. These child-initiated sequences are widely regarded as facilitative of children's language acquisition (cf. Hoff-Ginsberg & Shatz 1982).

OBS: 25-month-old watching Sesame Street.

Child: "A boy."

Mother: "A boy."

Child: "A yellow boy."

Mother: "A yellow boy."

Child: "A boy."

Mother: "Another boy. What kind of a boy is that"?

Child: "A brown boy."

Mother: "A brown boy. What's that"?

Child: "A girl."

OBS: 30-month-old watching Sesame Street.

Child: "Snuffy."

Mother: "Snuffy"?

Child: "Snuffy, I like Snuffy."

Mother: "I like Snuffy."

Child: "Big Bird reads story."

Mother: "Big Bird wants to read a story to Snuffy"?

Mother: "Ernie is awfully silly, isn't he"?

Child: "Playing a game."

Mother: "He is playing a game."

2. Acknowledgement. In the case of younger children, parents acknowledge the child's talk regardless of how and what was said. The child might point, babble, or just look up at the set briefly, and the parent responds with, "Yes, Baby, it's a _____." Examples include a 13-month-old child who identified a cow as a "Bow-wow" and received cheers for the ability to name animals on television and an 18-month-old who referred to a puppy as a kitty and was told "Puppies, yes" (cf. Mervis & Mervis 1982, who report similar naming practices for mothers of 13-month-olds). In the case of older children, parents offer acknowledgement of accurate content, usually with an exclamation of "yes," followed by a repetition.

3. Directing behavior. In addition to telling the child what to attend to, parents direct the child's behavior in two other ways. One is encouragement. They urge the child to answer, count, sing, or dance with the TV. Another is negating the child's behavior related to touching the screen, playing with the knobs, switching channels, or standing too close to the set. Such directions make explicit for the child that the television is a medium of communication, with particular rules of use.

OBS: 13-month-old watching the news.

(child walks to TV set and turns it off)

Mother: "No, Baby, no."

(child returns a few seconds later and repeats)

Mother: "No! Turn it on!"

(child turns it on and walks away)

OBS: 18-month-old watching The Facts of Life.

Mother: "Here comes your song! Do you want to dance"?

(child walks to TV set and starts dancing)

4. Answering questions. Parents use their baby's questions as an opportunity for a variety of activities. One subset is correcting, clarifying, or challenging the baby. Another subset is interpreting, expanding, and relating the TV content to the child's reality. These explicit comparisons to and projections of a child's daily activities contribute to a child's acquisition of narratives and future written literacy (Heath & Branscombe, in press).

OBS: 23-month-old viewing Sesame Street.

Child: "Big Bird goes to school"?

Mother: "Big Bird doesn't go to school, even though he wishes he could."

Child: "Go out to school"?

Mother: "Big Bird is going to school."

Child: "I go back to school"?

Mother: "We just came home."

Description. Parents, like their children, occasionally provided a monologue of descriptive talk, eventcasts, related to the television experience. The child's attention often cues the parent to concentrate on particular content. This form of talk was especially evident with the younger children.

OBS: 11-month-old viewing Sesame Street.

Mother: "See the Big Bird, Baby? Where is it"?

(baby points to the screen)

Mother: "Yes, that's Big Bird."

(baby attends)

Mother (with the television character): "Seven, eight."

(baby points and babbles; loses interest and looks away)

Mother: "There he goes. There is the dog. See the flowers? Where is the boy, Baby? Where is the boy"?

(baby points)

Mother: "Oh, look, there are your favorite ducks and cows."

(continues)

Developmental Trends

Some categories of talking were apparent at the youngest ages observed, whereas others were evident only for the older children. An analysis of the observations according to age of child is reported in Tables 1 and 2. The unit of measurement for each entry is the number of children who demonstrated a certain category of behaviors. Recall that because of the longitudinal observations the same child appears in more than one age level. The incidence of behaviors is divided into frequent (observed or reported in caretaker's log at least three times) vs. occasional (either observed or reported in caretaker's log less than three times).

Throughout the age range observed, children were likely to designate what they saw on television.

Children first pointed, then labeled. As they became more fluent they switched from labeling familiar pictures to labeling of unfamiliar, surprising objects or scenes. Parents supported the children's tendency to designate with attention-calling, labeling, and questioning, although instances of parental designations were less pervasive than their children's. At the same time, however, parents did respond to their children's designations and asked general questions.

Somewhere around the 20-24 month period, as children become fluent speakers, their TV-related comments broaden to include questions, repetitions, and descriptions. During the same time the parents continue to designate, ask questions, and respond to their children's comments. In the sample of families observed, children were far more likely to provide descriptions/eventcasts than were the adults.

For the three children above 24 months, designating disappeared at 29 months, whereas questions, repetitions, and descriptions were still in evidence. Some parents continued to question, respond to their child's comments about television, or describe what was happening.

The Social Context of Television Viewing

Some important aspects of the viewing situation are not captured well by the categorization of single utterances or brief interchanges. The most significant of these is the richness of the interactions surrounding the television experience. Unlike book reading, it is not necessary to set aside time for television viewing, or to formally break ongoing activities to establish a separate communicative framework. Instead, the children's talk about television was embedded in a stream of conversational interactions with other members of their families. Usually there was little or no transition from other topics to inserted TV-topics and back to the other topics.

The following examples are representative of the many occasions of extended conversations that were observed.

OBS: 15-month-old baby eating breakfast in highchair.

(*Sesame Street's* opening song starts. Baby turns her head toward the television and even though Big Bird was not on yet, responds immediately)

Baby: "Bird."

Mother: "Children."

Baby: "Goo."

(meaning children)

Mother: "Look, here is a dog!"

Baby: "Bow wow."

(mother feeds her. Baby turns back to mother)

Baby: "Waffle."

(mother feeds her)

Mother: "Who is that? Bird"?

Baby: "Bird."

Mother: "Yes, and who is that, Telli? Telli monster?"

Baby: "Te."

Mother: "Hey, here is Bert and Ernie!"

Baby: "Bert. Waffle."

(conversation continues like that with television and food related exchanges with no transition. Baby's head is turning back and forth from facing mother and eating to the television. Baby attends to Bert and Ernie.)

Mother: "Who is that"?

Baby: "Bert."

Mother: "Bert and Ernie. Baby, waffle? Baby, Baby, you want your waffle"?

(baby ignores)

Baby: "Mama, Mama."

(pointing to a woman exercising and turning back to face mother)

Baby: "Mama, Mama."

(looks back to television and looks away)

Mother: "Who is that, Telli monster"?

(baby attends)

Mother: "What's that"?

Baby: "Frog."

Mother: "What's that"?

Baby: "Hop, hop, hop."

(meaning rabbit)

(mother brings child's stuffed toy rabbit. Baby plays with toy. Baby looks at an animated segment)

Baby: "Ball."

(to the television, unintelligible, ending sentence with "...ball.")

Mother: "Ball. Three balls. One, two, three..."

Mother: "Who's that"?

Baby: "Grover."

Mother: "What's that"?

Baby: "Show."

OBS: 22-month-old with mother and sister.

(mother turns the television on and turns to baby)

Mother: "What's on"?

Baby: "Sesame Street!"

(standing watching a camp scene)

Baby: "Mickey is going night night."

Mother: "Yes, Mickey is going night night."

Baby: "That's his teddy bear."

(pointing)

Mother: "Yes, that's his teddy bear."

Baby: "That's Mickey."

(pointing)

Mother: "Yes, that's Mickey. And that's Rusty, his friend."

Baby: "They are making his bed."

(turns smiling to mother)

Mother: "They are making Rusty's bed."

(baby turns to mother)

Baby: "I want to sit. I want to sit on you."

(climbs on mother's lap)

Mother: "OK."

(TV segment changes to Ernie and Bert. Baby turns to observer smiling)

Baby: "He's making the bed."

(turns back to the television, gets down)

Baby: "I want a taste of coffee."

(after a brief interaction with mother about the coffee, baby attends to the program again)

Baby: "Ernie feels sad!"

(mother surprised)

Mother: "Ernie feels sad!"

Sister: "No, Telli."

Baby: "No, Ernie feels sad."

(baby goes with mother to the bathroom upstairs, returns watching a segment with Snuffy while mother is putting her underpants on)

Mother: "Who is that, Baby"?

Baby: "David is sleeping, shshsh."

(holding finger on mouth in a hushing sound. Live snake segment comes on.)

Baby: "Is he going to hurt me"?

Mother: "No, it's not going to hurt you."

(baby attends to number eight segment, turns to mother)

Baby: "10."

(mother corrects her)

Mother: "Eight, Baby,"

Baby: "10."

Mother: "Eight."

(baby comes to observer holding her blanket)

Baby: "That's my blanki."

(turns to mother)

Baby: "The Count."

Mother: "Yes, that's the Count."

(a live horse segment; baby turns to mother)

Baby: "The kid riding."

Mother: "What's the kid riding"?

Baby: "A horse."

Mother "A horse."

(severe reception problems; sister and baby start playing. A few minutes later baby turns to mother)

Baby: "I want to ride the horse too."

Mother: "OK, go ride your horse on the porch."

(baby goes outside, returns shortly, turns
to mother)

Baby: "I want to watch _Sesame Street_."

Mother: "Sweetie, it's not on now."

Sister: "It's over."

In the families observed, children viewed and conversed while they ate, played, had their diapers changed, and generally went about their ordinary routines. The likelihood of TV-related talk was influenced by several factors. One is the program content. As many of the examples indicate, _Sesame Street_ in particular was likely to elicit TV-talk from young children. Possible reasons for that finding are discussed elsewhere (Lemish 1984, in press). Other factors are child characteristics, such as age, linguistic maturity, and volubility, and parent characteristics, such as responsiveness to their child and their own talkativeness. Sometimes the children initiated TV-talk when something interesting drew their attention to the set and sometimes an adult elicited the child's attention to the television, thereby initiating a chain of comments. The usual situation entailed several turns of TV-related talk. Isolated comments by parent or child were infrequent.

Discussion

Recent writings about the role of parental input in children's language acquisition emphasize that the nature of the input depends on the situation (cf. Goddard et al. 1985, Snow & Goldfield 1983, Wells 1985). For example, picture-book reading is characterized as a situation that calls for joint attention and joint reference, elicits a great deal of verbal labeling and test questions from the parent, and, for some children, elicits repetitions of adult utterances. Those features appear to characterize the television viewing situation, as well. Snow and Goldfield argue that the features of book reading that account for these interactive characteristics are: the set nature of the interactive routines, recurring instances of the familiar routine, and the predictable use of familiar words in the same contexts. Other authors (e.g. Goddard et al. 1985, Wells 1985) add that book reading routines often are motivated by a tutorial intent on the part of the parents.

Television viewing shares some of the features of the book reading context, insofar as programs appear at the same times, follow the same general routines, recur, and provide some predictable modelled utterances. Yet there are some important differences between the viewing situation and book reading, even though the interactive outcomes appear to be very similar. Therefore, consideration of those differences can suggest additional contextual variables that contribute to language-facilitative caretaker-child interactions.

A major difference is that television viewing does not demonstrate the ritualistic interactive characteristics evident in book reading. This is a consequence of a comparative lack of control of the medium. Adults and children react to what is presented, rather than controlling the presentation itself. Therefore, it is not possible to set up a situation in which the responses and interactive routines are fully known to both participants. Closely related to the lack of control is the continuous nature of television's contribution to the situation. The program continues even when the viewer is inattentive. Consequently, there is intermittent engagement of viewers and frequent need to reestablish joint attention.

Another striking feature of television is its attractiveness to children and adults. It is perceived as a medium of entertainment, to be used for enjoyment and relaxation. While it is amenable to tutorial purposes, it can be attended to just for fun. Perhaps because of its inherent appeal, there seems to be a strong desire on the part of viewers to comprehend what is presented. Finally, the combination of appeal and lack of control means that children can view without the active participation of adults, which at times is a very attractive possibility for a busy caretaker.

The consequence of these features of the viewing situation is that verbal interactions about television are embedded in an ongoing stream of activities in the home setting. Only infrequently do parents sit down with the child and devote their full attention to the child's favorite programs, with some intent to instruct their youngster. Instead, the child and the caretaker time-share viewing with other activities. Many of the verbal interactions are intended to redirect joint attention to the screen, often with the intent of comprehending what is shown. These "Look!", "What's happening"? exchanges can be initiated by either child or adult. Children seem to want to make sense of what they see, or to comment on what they understand. Adults seem to want to insure that children continue to view (as a way of keeping the children peacefully occupied), with at least reasonably accurate interpretations of the content. Interactions can be sustained because the topic that is of interest to the child is also of interest to the adult. As Wells (1985) points out, the extent to which children receive semantically contingent responses from their parents is a function of how interesting the topic is to an adult.

The viewing context suggests that the following variables be considered as contributors to the quality of verbal interactions between adults and children: 1) The amount of adult control involved, or, put another way, the extent to which the child can participate independently; 2) the appeal of the content - maximum appeal for adults and children depends on a judicious mix of familiarity and novelty, where the content is familiar but yet not fully predictable; 3) the continuity of the activity vs. discrete, clearly defined interactive routines; 4) the potential benefit of the child's activity for the adult caretaker, or, put another way, the response cost for the adult. The viewing context demonstrates that joint attention, joint reference, extensive labeling, and joint consideration of a common topic can be achieved in an ongoing, loosely structured activity when the content is immediately available, appealing to both adult and child, and there are reasons for the adult to sustain the child's participation in the activity. It suggests that labeling is a powerful phenomenon that does not depend on highly specialized circumstances. It also suggests a greater role for content in determining interactive patterns than previously acknowledged. Above all, the viewing context is complex, requiring the child to process many levels of information simultaneously, and to coordinate his own utterances with multiple simultaneous interactions.

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Table 1

Categories of Child Verbal Behavior by Child's Age

Age (months)	N	Designating		Questions and Requests		Repetitions Parent		TV		Description	
		F	O	F	O	F	O	F	O	F	O
9	1	1									
10	3	1									
11	4	1									
12	5	4			1		1				
13	5	2	1								
14	8	4	3								
15	5	3	1			1					
16	6	3	1								
17	5	3									
18	5	3		1			1	1		1	
19	5	3		1			1	1			1
20	5	3	1	1			2	2	1	2	1
21	8	5	3	1	4			2	1	2	1
22	6	4		1	2			2	1	2	
23	6	3		1	2		2	2		2	2
24	6	2	3	3	2			2	2	1	2
25	3	1	1	1	1						1
26	2	1	1		1			1			1
27	1		1	1							
28	3	1	1	3						1	1
29	3			1				2		2	

N = Number of children observed at this age. Recall that an individual child is observed at more than one age level.

F = Frequent behavior: had to be both observed and reported in caretaker's log at least 3 times.

O = Occasional behavior: was either observed and/or reported in caretaker's log less than 3 times.

Table 2

Categories of Child Caretaker Verbal Behavior by Child's Age*

Child's Age (in months)	Designating		Questions and Requests		Responses		Description	
	F	0	F	0	F	0	F	0
9								
10	1		1		1		1	
11	1				1			
12	1				1			
13					1			
14	1		1	1	2			
15	1		2					
16	2		1	1		2		
17						1		
18	2	1	2	1		1	1	2
19	2			2		2		1
20	3		2	1	1	1		
21	1	2		2		3		
22		1		2	1			
23	1		2		2			1
24		3	2	1	2	3		2
25		1	1		1	1	1	
26								
27								
28			1		1		1	
29					1	1		

F = Frequent behavior: had to be both observed and reported in caretaker's log at least 3 times.

0 = Occasional behavior: was either observed and/or reported in caretaker's log less than 3 times.

*The number of children observed at each age level is the same as reported in Table 1.