1 Talking about the There and Then: The Emergence of Displaced Reference in Parent-Child Discourse

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Imagine the following scene: A 26-month-old girl is eating a popsicle after dinner. After a brief tantrum because she isn't allowed to eat both halves at once (she shouts "I want the nother one!"), she concentrates on the popsicle, saying "It sticky, It sticky. Sticky." Her mother asks, "What did you do today, Naomi?" and Naomi replies, "Took a nap." What is required to deal with utterances like this one, that bear no relation to a supporting nonlinguistic context? In this paper, I wish to discuss how a little child might come to be able to supply an appropriate response to a question like "What did you do today?"

Such an utterance stands in marked contrast to most speech of the child and to the child at this age. One of the most striking characteristics about young children's speech is its close relationship to a supporting nonlinguistic context. Brown and Bellugi (1964) captured the flavor of children's speech well when they described it as being about the "here and now." The fact that children talk about what they are seeing and doing makes it possible for caregivers to understand many utterances that would otherwise be uninterpretable. Indeed, much of the research on child language rests on the assumption that one can guess something about the child's intended meanings from the combination of the forms uttered and the context (Bloom, 1970; Brown, 1973).

Adults also talk mainly about the here and now when they interact with young children (Brown & Bellugi, 1964; Bloom, 1970). Something of the meaning of the adult's utterance would often be clear even to a listener who did not comprehend the linguistic form at all. The fact that linguistic forms are used in semantically clear contexts makes it possible for the child to begin to break the code of the language and to discover form-meaning correspondence (Clark,

1973; Macnamara, 1972). Thus, it appears that the close correspondence between what is said and a supporting nonlinguistic context is an important characteristic of early speech both from the point of view of the adult and from the point of view of the child.

For conversational partners to communicate about events and objects outside the immediate context, a variety of cognitive, linguistic, and conversational skills are required, and it is not at all surprising that interactions with young children contain few instances of such reference. As a child develops, there is more and more talk about topics that are not in the current context. For example, Moerk (1975) found a sharp increase in speech about past activities and future plans in conversations between mothers and 2- to 5-year-old children. In school-aged children, there has been considerable attention to the increase in the ability to produce and comprehend language in the absence of contextual support. For recent discussions of the large literature on the topic of referential communication, see Glucksberg, Krauss, and Higgins (1975) and Shatz (1978).

However, even from an early point in development, there is some child speech about topics that are not in the here and now. Before the emergence of combinatorial utterances, children request objects that are not in sight (Bruner, Roy, & Ratner, 1982; Greenfield & Smith, 1976), and search for objects named (Huttenlocher, 1974; Zukow, Reilly, & Greenfield, 1982). In conversations between adults and children under 3 years of age, most of the child speech refers to the immediate context, but there is occasional reference to objects or events based on fantasy or prior experience (Bloom, Rocisanno, & Hood, 1976; Keenan & Schieffelin, 1976). The early attempts of children to talk about events that occurred in the past have been documented (e.g., Halliday, 1975; Sachs, 1977; Stoel-Gammon & Cabral, 1977), and the emergence of the syntactic forms for marking temporal distinctions has been studied by a number of researchers (e.g., Antinucci & Miller, 1976; Brown, 1973; Cromer, 1968; Harner, 1975, 1976).

Though we know relatively little as yet about how the child comes to deal with such topics, it is certain that these changes in the child's use of language have profound implications for both interpersonal communication and thinking. The ability to refer to objects or events not in the current context is widely recognized as one of the most important features setting language apart from other forms of communication. Hockett (1960), in his description of the defining features of human language, called this characteristic "displacement." Displacement may involve the spatial domain, with reference to objects that are not in the immediate environment, or the temporal domain, with reference to the past or future. Another term often used to capture the decrease in reliance on support from the immediate situation in speaking and understanding is "decontextualization" (Bates, 1979; Bates, Bretherton, Shore, & McNew, this volume).

As language evolved, it must have taken on an entirely new character once the potential for displaced reference was realized. An ordinary conversation between

adult speakers need not have anything to do with the situation they find themselves in. Rather, it is generally the case that the support for interpreting messages comes from the listener's prior experiences and knowledge. We could not expect conversations between adults and children to be like adult-adult conversations in this respect.

The use of displaced reference is also fundamental to the role language plays in thought. In thinking, we re-present objects and events that are not currently at hand. In the evolution of thought, the use of a symbolic system with the capacity for displaced reference would have broadened the possibilities for information storage, problem solving, and planning enormously. It even allows for the possibility of hypothesizing, lying, and fantasizing. As Baron (1977) and Brattacharya and Baron (1979) have argued, the use of language independent of contextual support (what they call "indirect reference") is *the* characteristic that makes possible the complex role language plays in our lives. Clearly,learning more about the child's gradual entry into the world of the there and then should have important implications for our understanding of the complex relationships among cognitive development, social development, and language development.

GOALS AND METHODS

One goal of this study was to describe the emergence of the production and comprehension of certain types of displaced reference, based on data from a longitudinal study of parent-child discourse. As a child develops, we expect not only that displaced reference in the child's speech would become more frequent, but that such reference would become more successful. Furthermore, because this type of reference is difficult for the child to understand, yet very important for successful communication, we expect that various strategies would be used by the adults in order to make comprehension easier for the child.

The second goal was to consider reasons for the child's development, especially in terms of the opportunities for acquisition supplied by parent-child conversation.

We will first consider the development of the ability to refer to objects that are not present. A description of the emergence of reference to past and future events will follow, and the concluding section will contain remarks relating these two semantic domains.

The child observed was my daughter, Naomi, a firstborn child. The data consisted of transcripts of approximately 40 hours of taperecorded interactions between Naomi (ages 17 to 36 months) and her mother or father. Recordings were made every other day in the 22nd and 23rd months, and about twice a month for the rest of the period. These data were supplemented by a diary that began at 11 months. For this project, both child and parental utterances were

analyzed for reference to objects that were not in sight and events that were not happening at the moment. At the time the recordings were made (1969–1971), neither parent thought that his or her speech would be the object of study.

SPATIAL DISPLACEMENT

The description of Naomi's development is organized here into periods that reflect similar usage. Examples of successful and unsuccessful communication will illustrate her use and comprehension of speech about absent objects, in order to show when she had the ability to deal with this speech function and how it first emerged. It is important to keep in mind that speech about the here and now always overwhelmingly dominated the conversations throughout the period studied, and the usages described here represent the growing edge of Naomi's abilities at that age, not the established abilities.

The Emergence of Reference to Absent Objects

The observations reported here are based on diary data from the period in which Naomi used only single-word utterances (about 11–20 months).

From 11–16 months of age, Naomi seemed to be truly limited to the "here and now" in her production and comprehension of speech. Around 11 months of age, she started to use some consistent vocalizations, some of which were recognizable as English words, in specific situations. In these "first words," there were no labels for objects; rather, the vocalizations seemed to accompany Naomi's reactions. For example, *bye-bye* was used accompanying waving, a panting sound was used with reaching (seeming to signal desire for an object), *hot* was said when food was placed in front of her, *geah* was used with pointing (seeming to direct the listener's attention rather than to elicit the listener's aid in obtaining the object). A number of studies of early word usage have shown that this type of usage, often called "performatives," is typical before real words are acquired (Bates, Camaioni, & Volterra, 1975; Carter, 1978; Halliday, 1975).

In the 15th and 16th months, Naomi began to imitate adult models, both spontaneously and when asked to do so. During this period, many words referring to objects or persons appeared. There were phonological forms that seemed to be modeled on such adult words as *doggy, kitty, juice, milk, mommy, daddy, jacket, hand, cow, baby,* and *ball.* During this time, however, the words that Naomi knew were never used as requests for objects that were in sight or out of sight. If Naomi wanted something that she could not get herself, she would reach for it and fuss or whimper or make panting sounds to indicate wanting, but she never used the name of the object. This pattern of development is consistent with that in the children studied by Greenfield and Smith (1976), where the function of requesting was not present at the onset of vocabulary acquisition, and the

children studied by Bruner, Roy, and Ratner (1982), where nonlinguistic vocalizations appeared in early requests.

At 17 months, Naomi continued to use only single-word utterances, but began to use the names of objects in requesting them, including instances in which the object was not in sight. These requests provide the first clear evidence of the production of a word without a clear eliciting stimulus in the situation. At about the same time, Naomi began to search for objects not in sight if an adult asked her to.[1] This pattern of development in the production and comprehension of words reflects a transition from a period in which words are closely linked to objects or specific situations to a period in which a true symbolic usage emerges (Bates, 1979; Dore, 1978; Nelson, 1974).

When Naomi began to use two-word utterances at 20 months, a means of making reference to absent objects, *where + name of object* was among the first combinations she used. As in her earlier use of single words referring to absent objects, these utterances always accompanied searching for the object, as in the following example:

(20 months; child is looking around for something)
Child: [dadi].
Adult: What, honey?
Child: [dadi]. [dadi].
Adult: What's [dadi], honey?
Child: [dadi].
Adult: Dolly? Which dolly do you want?
Child: Want.
Adult: Do you want the bear?
Child: Bear.
Adult: Here's the bear. There, Hug, hug, hug, Naomi.
Child: (rejects bear) [dadi]. Where de [dadi]. [dadi].
Adult: (finds correct doll) There.
Child: There.

Even though Naomi could refer to objects out of sight and understand such reference by the latter part of the period of single-word usage, this aspect of language was still closely tied to her needs and actions. Objects were mentioned when Naomi wanted them. When others said *where's absent object* to her or when she used this form herself, *where* meant "search for" or "get." Displaced reference in its more developed usage functions not only for requests, but as the basis for comment or description. We wished to see how Naomi came to be able to *talk about* objects not in sight.

[1]Hearing the name of an absent object did not automatically elicit a search, unless it was said in the context of an instruction such as *where, get,* etc. Furthermore, we often asked Naomi to imitate words, which she would do willingly during this period without interrupting her ongoing activities. In the imitation game, "*say juice*" would not cause Naomi to look for the juice.

The Emergence of Conversations About Absent Objects

In learning to talk about objects that were not present, one of the first types of conversations emerged in the framework of *where's absent object* utterances, as Naomi's understanding of *where* changed from "search for" to "specify location or activity." The word *where* is originally introduced in situations in which the object specified is present and the child's response is "point to." For most children, the pointing response following *where* probably is learned even before the child uses any expressive language. Next, the child accompanies the pointing response with a deictic utterance (e.g., *da* or *dere*). Later, the child broadens the meaning of *where* to "search for" in responding to *where's absent object*. Once the child responds to *where* as "search for," the stage is set for the extension of the meaning of this term. The child can then learn, through discourse, that an exchange of information rather than searching is sometimes an appropriate response to *where* (Miller & Weissenborn, 1978).

At 22 months, some conversational topics appeared in Naomi's speech that did not involve a direct link between naming and searching; that is, she commented on something not in the current context.

The basic problem for both child and parent in using displaced reference is that there is no easy way, such as pointing, to arrive at agreement about the referent. In successful conversations about absent objects, this problem was avoided by references to objects or people in which there was only one possible referent. When conversation about absent objects began, there was a small set of frequently appearing conversational topics that will be referred to as "conversational routines." In these routines, the topic (location of a unique referent) and structure of the conversation was similar from time to time, but the exact content and linguistic forms were variable. One of these conversational routines was the location of the absent parent.[2] Here is one example from the many in the data:

(22 months)
Child: Where's Daddy?
Adult: Daddy is working. Daddy will be home tonight. You'll see him tomorrow morning.

The following example shows that Naomi learned about potential answers to the "where" question through such discourse.

(23 months)
Child: Where's Daddy? Daddy's in work?
Adult: Daddy's at work, honey.

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[2]*Where* questions are often answered with an utterance specifying an activity that is understood to occur elsewhere. While such answers might misinform the child as to the meaning of *where*, there is no evidence in my data to suggest that they did. Eventually, the child has to learn that only activity descriptions involving habitual locations can serve as specifications of place.

A second frequent conversational routine involved asking about other unique referents: the moon or sun. Sometimes the adult introduced this topic in a situation where a verbal (rather than searching) response was called for. In the following examples, the entire conversation about the absent object is given in order to give a sense of the length of these conversations during this period:

(22 months; looking out window during the day)
Adult: Where's the moon?
Child: Moon.
Adult: Uh huh. Where is it?
Child: Moon sleeping.
Adult: Uh huh. The moon is sleeping. Where is the sun?
Child: Sun. Sun working.[3]
Adult: That's right. The sun is working. Naomi, do you see how the trees are blowing in the wind? Must be windy. Do you remember what wind is?
Child: (makes high pitched "hoooo" sound)

(23 months; just before going to bed at night)
Adult: Tell me about the sun.
Child: Go nite-nite. Bye-bye sun. Bye-bye sun.
Adult: Where's the sun going?
Child: Hey sun. Going nite-nite.
Adult: Uh huh. Think it's going to work?
Child: Bye-Bye sun.
Adult: Can you see it?
Child: All gone.

As in conversations about Daddy, Naomi also introduced the topic:

(22 months; in kitchen, during the day, after eating)
Child: Where's moon?
Adult: Where's the moon? The moon is sleeping. The moon is not out now.
Child: Light.
Adult: Yes, it's light. It's daytime now, honey.
Child: Nighttime.
Adult: No, daytime, not nighttime. Nighttime is dark, honey, and daytime is light.
Child: Night night.
Adult: No, the sun is out now instead of the moon.
Child: Sun hot.
Adult: Sun is hot. That's right. The sun is also light.

(23 months; sitting on Naomi's bed, looking at pictures on her sheet, which included some stars)
Child: Where's sun?

[3]These conversations provide nice examples of the learning of the meanings of other words in verbal context, such as *working*, *windy*, *daytime*, and *nighttime*. Here, *working* seems to be descriptive of being away.

Adult: Do you want to drink your juice?
Child: Sun gone?
Adult: Sun gone.
Child: All gone sun. Bye-bye sun.

Other conversations during this period about absent objects involved asking about the location and "activities" of a doll not in the room (with no intention of finding the doll), and asking about where her grandmother was (a grandmother who lived in another city). The conversations about grandmother eventually developed into a game in which Naomi would pretend to call her grandmother on a toy telephone.

These conversational routines were initially very primitive as conversations go, but over time the child progressed from a set of learned responses to using appropriate, variable speech content. As other types of displaced reference appeared in the parent-child discourse, they also tended to make their first appearance in conversational routines, as will be shown later in this paper for past reference.

The child's communicative intent can also sometimes be understood by the adult because of shared experiences with the child. Snow (1978) gave an example in which she could not respond appropriately to a child's utterance, but the mother could:

Mother in kitchen. Experimenter (CS) and Meredith (18 months) in living room.
Meredith: Bandaid
CS: Where's your bandaid?
Meredith: Bandaid
CS: Do you have a bandaid?
Meredith: Bandaid
CS: Did you fall down and hurt yourself?
Mother enters.
Meredith: Bandaid
Mother: Who gave you the bandaid?
Meredith: Nurse
Mother: Where did she put it?
Meredith: Arm [p. 254].

In many cases, however, disambiguation of this sort does not occur. With limited linguistic and cognitive abilities, the young child has great difficulty in adding information that would serve to identify an unknown referent for the listener. When Naomi mentioned a referent that belonged to a large set, problems could arise, as the following example shows:

(22 months; Naomi has been pushing a wastebasket around)
Child: I need it.
Adult: What do you need?

Child: I need the book.
Adult: Which one?
Child: I need the book.
Adult: The big one? The Sears catalog?
Child: (growing upset) The book. The book. The book.

Naomi changed "it" to "the book" but then added no more information when the parent did not understand her request.

The problem with reference to absent objects that were not easily identified continued throughout the period discussed here. Even at nearly 3 years, when Naomi had considerable command of linguistic forms (MLU 3.22), she had difficulty in knowing what information to supply for the listener. In the next example, Naomi paraphrased "dancing" with "happy" after the adult's request for more information and indicated that the target referent was "a book" after the adult asked whether the people were on TV; but after that she was able to supply no other clues. Note that the adult attempted to help by supplying "multiple choice" answers and giving explicit directions to "tell us more."

(32 months)
Child: I had those dancing people. (no referent in sight)
Adult: What dancing people, Naomi?
Child: Happy people.
Adult: What happy people, Naomi?
Child: Happy people.
Adult: What happy people? Do you mean puppets?
Child: Uh huh.
Adult: Clowns?
Child: Un huh.
Adult: On television? People on television?
Child: I need that book about dancing people.
Adult: You need the book about dancing people. You mean the Fantasia book? The book about dancing hippopotamuses?
Child: (shouting) I need dancing book. I need it.
Adult: Well, where is it, Naomi? Do you know where it is?
Child: No, I don't know.
Adult: Well, we're trying to figure out which one you want so we can get it. (Naomi has been growing more and more frantic and is now crying).
Adult: Hey, hey, calm down. Tell us more about the book so maybe we'll be able to figure out which one it is.
Child: (crying) I need the dancing people.

Bruner, Roy, and Ratner (1982) have described the adult's strategy in such situations as "successive guidance." Adult queries attempt to pull information from the child that he/she would not know to supply. Such queries can call for information that the adult actually needs in order to understand the child's re-

quest, or in cases where the adult knows what the child wants, can encourage the child to use a more complete linguistic message.

When Naomi was close to 3 years old, reference to absent objects occurred fairly frequently, mainly in pretend play or in talking about past events (to be discussed in the next section), but conversations that were not grounded in ongoing activity were brief. After a few turns, Naomi would say something related to her current perceptions and the conversational topic would shift. Thus the talk at this age was still not at all like adult-adult conversation, in which topics are typically not related to the objects and events in the situation. The following example is the longest conversation about an absent object in the data through 36 months. Here the identity of the referent is available to the child on the basis of shared knowledge about family members' possessions.

(35 months; Naomi sitting with mother; father is getting ready to leave but can't find his shoes)
Mother: Do you know where Daddy's shoes are?
Child: No. Maybe they're in the bathroom.
Father: In the what?
Child: I don't know where they is.
Father: I'll find them.
Child: I know where your shoes are.
Mother: Where, honey?
Child: In the bedroom.
Mother: (calls to father) In the bedroom.
(Mother comments about Naomi's popsicle; father returns)
Child: (to father) You found the shoes?
Father: Yes, thank you.

Conclusions About Reference to Absent Objects

These examples from conversations between parents and a child under 3 years of age show that they did not talk exclusively about objects in sight. However, when displaced reference first appeared, it was limited to a few, highly constrained topics. As the child developed, reference to objects outside the current context became more frequent and the range of topics that was appropriate to discuss broadened systematically.

In the period studied, reference to objects out of sight was difficult and not always successful. The problem that reference to absent objects presents to the young child and his or her listener is that each has to depend purely on the linguistic message to know what the other is referring to. We saw that there were two strategies in early interactions that seemed to make communication easier. In both, the use of shared knowledge provided a basis for success in using displaced reference.

The first strategy was the creation of conversational routines. Initially, these

routines functioned as a form of playful interaction between the adult and child. With a routine, the constant structure helps to make the parent-child interaction successful because each knows what to expect of the other. The variability permitted within the routine helps to insure that neither party becomes bored. Furthermore, it would seem that the combination of order and variability in this sort of linguistic play between parent and child can provide a framework for the child's developing linguistic and cognitive abilities. Conversational routines might play a role in the early stages of learning of any aspect of the language,[4] and some examples are already to be found in the literature. Bruner (1975) has argued that play between the mother and prelinguistic child aids the development of early semantic relationships. Sachs and Truswell (1978) found that mothers of children in the one-word stage used linguistic routines with variable words, and suggested that such routines could help the child learn to understand action-object sentences. In the data presented here, there were conversational routines that provided an opportunity for the use of displaced reference, paving the way for productive conversation. In each case, the general topic was set (for example, talking about the moon). However, the exact content and linguistic forms within that conversational topic were variable and became progressively less fixed over time, until there was no longer a routine at all, but simply a possible topic of conversation.

I would not want to suggest that the parents deliberately designed these routines in order to present new linguistic information to the child. In fact, it seems quite clear in my data that it was often the child who controlled the topic of conversation. One important area for future research is to determine those aspects of the child's speech and behavior that signal the parent when various topics are appropriate.

Reference to unique objects was the second strategy that made displaced reference easier during this early period in the child's development. Almost all the successful conversations had to do with referents for which no further specification was required. When Naomi brought up a topic that could not be identified easily, the problem for her seemed to be in knowing what additional information to supply. Since the selection of appropriate features is dependent on an evaluation of the listener's knowledge, we would expect that children even considerably older than 3 years would be limited in their ability to introduce new topics into a conversation.

By the end of the period studied, when Naomi was 3, most of the talk still focused on the here and now, but she could engage in conversations about nonpresent objects with no support from the immediate environmental context. These interactions were short, but had the flavor of real conversations.

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[4]Routines are also useful, even for adults, in situations in which there is communication difficulty: e.g., beginning and ending conversations, talking with strangers, talking about unpleasant topics (such as condolences). See Ferguson (1976) for a discussion of politeness formulas in languages.

TEMPORAL DISPLACEMENT

The other type of displaced reference to be considered in this paper is temporal displacement: talking about the past or future. Most of the development in the period studied (17 to 36 months) was in the semantic domain making reference to past events. Past reference is a complex part of the language, marked in English both syntactically and lexically. One finds that the child's comprehension and usage of the past changes gradually over a long period of time (Brown, 1973; Cromer, 1968). The child's earliest use of the past markers in English (-ed and irregular past) occurs in descriptions of events in the immediate situation. Often, an end result of the event is still in evidence, as in *I fell down* or *I broke it,* and a number of researchers have pointed out that the past marker in such cases may signal a change in state, or aspect, rather than past time (Antinucci & Miller, 1976; Bloom, Lifter, & Hafitz, in press; Bronkadt & Sinclair, 1973). Aspect is signalled by a syntactic marker that is different from the marker used to indicate past time in many languages other than English, but in English, *-ed* contains both an aspectual and temporal meaning. A number of researchers have studied the acquisition of tense and aspect (e.g., Halliday, 1975; Harner, 1981; Kuczaj, 1977; Smith, 1980). My data are consistent with most of these studies in that there are past references that appear to be temporal rather than aspectual before age 3. It is the emergence of reference to the temporal domain that was the focus in this study; aspect will not be discussed.

A coding system was devised to distinguish between reference to events that had just occurred in the immediate context, called Immediate Past, and events that occurred at an earlier time, called Earlier Past. (See Chafe, 1974, for a discussion of the role of the perception of time in linguistic temporal distinctions.) We did not code for the aspectual usage, and whether or not a verb signalled a change of state was irrelevant for this analysis.

Furthermore, in this study, rather than focusing on the emergence of the syntactic markers for past, we were interested in the emergence of the intention to refer to Earlier Past, and consequently the presence of syntactic markers was irrelevant for the coding. The verbal context and notes about the nonlinguistic context were used in judging semantic intent.

All utterances from the data described above referring to the past were coded by two independent coders[5] into one of three categories: *Immediate Past, Earlier Past,* or *Other.*

1. *Immediate Past* was defined as reference to events that had just occurred, whether or not syntactic marking for past was realized, as in *Closed it* or *I find foot* (said after uncovering her foot).

[5]All utterances were initially coded as Nonpast-Past, with an intercoder reliability averaging .87 (range .74 to .96 across different transcripts). Then the Past utterances were subcoded as Immediate Past, Earlier Past, or Other. The mean reliability of this coding was .93, with a range of .91 to .95 across transcripts.

2. *Earlier Past* was defined as reference to events clearly not in the immediate situation, where at least 2 hours had intervened, as in *I play with Todd's toys* (said when talking with mother about what happened that morning).
3. *Other* was defined as reference to past in which neither category described above applied clearly. Such utterances were not analyzed further. Examples would be reference to an event that occurred a few minutes before the utterance (such utterances were rare) or the use of past in narratives and fantasy.

The data were also coded for future reference. A distinction was made between expression of intentions and real future reference:

1. *Intention* was defined as the verbalization of intention to carry out an action in the immediate context, whether or not the intention was realized with words such as *going to* or *will,* as in *Get down* or *Gonna get down* (said just before getting down).
2. *Future* was defined as reference to an event further removed in future time, as in *See Michael today?*

A brief description of some of the features of Naomi's development from several periods will be presented here, and then a more detailed consideration of Time II will follow.

Time I. Reference to Immediate Past and Intentions (17–25 months)

During this period, Naomi referred almost exclusively to ongoing events, Immediate Past, and Intentions. Most Immediate Past references were not marked syntactically, as when *I fall down* was said just after falling. Her first form that included an adult past marker was actually a routine, *I did it,* that was used to indicate successful completion of an action (for example, when she managed to put a book into an opening in a bookshelf). Productive *-ed* endings began to appear around 22 months, but only to signal Immediate Past. The context of her utterances showed that she did not talk about events that had really occurred in the past, but only events that had just occurred, as in:

(22 months)
Child: I throwed it. I throwed it.

(23 months: diary)
Adult: Daddy booed you (= said boo to you).
Child: I booeded Daddy.

At the same time, Naomi began to use *-ing* productively in cases of ongoing activities. The emergence of her *-ing* was quite dramatic because she had learned

many of her verbs originally in the progressive form. For a time, she used forms like *I'm lyinging down, I'm sittinging down,* and *I'm standinging up.* The co-occurrence of the emergence of the two morphemes *-ed* and *-ing* suggests that Naomi was acquiring a distinction between *completed events* and *events in progress.*

In this period, Naomi often expressed Intentions (e.g., saying *get down* when she wanted to retrieve a pencil from the floor). Only one utterance is on record that suggests Future reference: At 21 months she spontaneously said *see Daddy* while riding home from the babysitter's with her mother. The diary entry indicated that this was the first future reference that had been observed.

Time II. Reference to the Past Events of the Day and Emergence of Future (26–31 months)

At 26 months, the appropriate topics began to broaden to include activities and events that had occurred within a limited temporal framework: the current day. Naomi's verbs began to be marked with *-ed* endings to signal Earlier Past as well as Immediate Past, and a number of lexical items appeared that reflected her growing awareness of temporal relationships, including *yet, already, still, in a minute,* and *yestermorning* (used to refer to any time in the past).

A frequent conversational routine involved asking about the events of the day. At first, the adult supplied questions and answers and Naomi responded with imitations. These interactions may have helped her learn how to respond appropriately. Eventually, the routines became conversations, as in:

(27 months; late afternoon after picking up child from sitter)
Adult: What did you do today with Kimberly? Can you tell me?
Child: I played toys with Kimberly.
Adult: You played toys with Kimberly?
Child: I put the toys away.
Adult: You put the toys away?
Child: I put the tinker toys away.
Adult: Oh, the tinker toys.
Child: Was messy.
Adult: It was messy?
Child: Yep.
Adult: Oh.
Child: In Kimberly's room.

These conversations about the events of the day seem to form a bridge between reference to events in the context and reference to past events in general.

To this point in the data, almost all of Naomi's references to future events were expressions of immediate Intentions. In addition, there was little reference

to the future by the adults. If we asked questions about the plans for the day, sometimes Naomi became confused, but usually she just seemed disinterested:

(27 months; at breakfast)
Adult: Naomi, where are we going today?
Child: Where are we going today?
Adult: Do you remember?
Child: Julia.
Adult: Yes, to Julia's. What are we going to do at Julia's house?
Child: What are we going to do at Julia's house? I want breakfast.
Adult: Do you want some of this roll?
Child: No.
Adult: Naomi, what are we going to do at Julia's house?
Child: What are we going to do at Julia's house?
Adult: Do you remember? We're going to have a birthday party.
Child: Don't like it. (referring to roll)

During the 29th and 30th months, Naomi began to talk about what was to occur at a later point, as if she had suddenly become interested in the sequencing of events. Here are some examples of child-initiated future references in these months:

Mommy's away. Coming back again.
(at bedtime) We'll have breakfast together.
Gotta put a bandaid on a little later.
I gotta feel better in the morning, when we have dinner in the morning.
We gotta drive pretty soon.
My mom will get up pretty soon.
(at bedtime, pretending) Goodbye, Dr. Melly, we'll see you in the morning when we get up.

Time III. Reference to Past Experience and Future Plans (32–36 months)

During this period, Naomi began to make reference spontaneously to past experiences and future plans and responded readily when these topics were introduced by her parents. By 33 months, she responded appropriately to 76% of the adult questions involving displaced references (as compared to 88% of the questions about the here and now). Although conversations involving displaced references were never very long, they were frequent. For example, in one of the transcripts at 35 months, about 10% of Naomi's utterances referred to the past. She also increasingly related her current perceptions to her more general knowledge. For example, while playing with play dough, she said *Yestermorning I maked a tiger;* when she saw some birds that looked like puffins in a book of hers, she said, *Puffins like in my Magic Carpet book.*

The Role of Parent-Child Discourse in Extending Past Reference

In this section, we will consider the possible role of the parents' speech for Naomi's learning of Earlier Past. To introduce this issue, let us briefly discuss the relationship of input language and language acquisition.

Until recently, controversy about the impact of the input variations on acquisition only considered language in a very global sense. Some researchers argued that the child's pattern of language development was quite resistant to even severe degradations in input; others suggested that even the level of the child's academic performance reflected subtle differences in linguistic background. In the last few years, it has become increasingly clear that the effect of input variations will differ according to the linguistic stage of the child and what aspect of language it is that is being studied (Nelson, 1977). For example, the acquisition of some of the basic semantic relationships may be independent of input variations (Goldin-Meadow & Feldman, 1977). However, the rate of acquisition of linguistic forms by the young child may be affected by the frequency or clarity of opportunities to notice form-meaning correspondences. Children seem to learn faster when adults speak in ways they can best understand: that is, when adults speak simply about simple things (Cross, 1977; Furrow, Nelson, & Benedict, 1979). At the other extreme, exposure to speech from noninteractional sources such as watching TV does not provide the kind of data base that supports language learning at a young age (Sachs & Johnson, 1976).

Zukow, Reilly, and Greenfield (1982) have provided a detailed analysis of the way caregivers use well-understood contexts to facilitate the child's transition from nonlinguistic to linguistic communication. They looked at episodes in which the adult offered an object or activity to children between 9 and 23 months. With the youngest children, offers were primarily nonverbal; then offers consisted of redundant nonlinguistic and linguistic cues; and finally the linguistic message preceded the caregiver's action. The caregivers appeared to be sensitive to the child's growing comprehension abilities in choosing their communicative mode, and by the end of the one-word period, some messages could be understood with no nonlinguistic support.

Once the child has begun to learn to talk, the child must continue to acquire more and more complex aspects of language. Children should benefit if adults do not continue to use the simplest possible speech, but change their input as the child progresses (Gleason, 1977). Relatively little attention has been given, as yet, to the ways in which adults might introduce material that is still outside the child's system, but that the child is ready to acquire. In the following section, we will look at the parents' speech to Naomi as she made the transition from using Immediate Past to Earlier Past. (Some of this material was presented in Sachs, 1979.)

The data consisted of the transcripts of interactions between Naomi and her mother or father during part of the period described above, when Naomi was 20

months (MLU 1.00) to 29 months (MLU 4.00). During this time, there were about 5,700 child utterances recorded, with 253 of them making past reference. There were 319 past references by the parents, and these were classified as Immediate Past, Earlier Past, or Other.

Both adult and child utterances were further coded into Topic Initiations or Responses. Initiations were Comments and Questions that did not follow directly from the partner's utterance. Responses consisted of Answers, Imitations, or Expansion, and Comments or Questions that sustained the topic that had been introduced.

Table 1.1 summarizes Naomi's acquisition of the meaning and syntax of past from 20 to 29 months. From 20 to 25 months in nonimitated utterances she referred only to events in the immediate situation, using the routine *I did it* and other verbs that were occasionally marked for past syntactically. By 22 months, some overgeneralizations appeared, suggesting that the *-ed* morpheme was productive. Reference to earlier events first appeared in the 26th month (at MLU 3.00). Throughout this period, for both regular and irregular verbs, Naomi had not reached the 90% criterion that Brown (1973) used to indicate that the child had acquired a grammatical morpheme, with only 77% of her references to past realized with past markers at 29 months (MLU 4.00).

In the speech of the adults where Naomi was 20–25 months old, over half the references to past were Immediate Past. Furthermore, they were Immediate Past of a special kind. When an adult reports something that just happened to another adult, it would ordinarily be because the listener had not noticed the event, as in *You dropped your scarf.* In talking to a child, on the other hand, Immediate Past usually encoded something that the child had been doing; for example, her father said *You covered your eyes* when Naomi had covered her eyes with her hands.

TABLE 1.1
Some Aspects of Naomi's Acquisition of Past

Age	Semantics	Realizations	%Morpheme Use
20-25 months	Immediate Past	*I did it.* some verbs with -ed some irregular past overgeneralized -ed (e.g., *I booded Gammy*)	72% at 25 months
26-29 months	Immediate Past and Earlier Past	-ed irregular past did (e.g., *I did jump*) was -ing *yestermorning*	77% at 29 months

The parents also used instructional questions about events that had just occurred, attempting to elicit utterances, as in, *What did you do, honey? Did you go nite-nite?* or *Did you boo Gammy?*. Naomi eventually used these instructional question forms in her own speech. For example, at 25 months she would do something and then ask her mother or father *What's Naomi do?*

What about Earlier Past in the adults' speech in the period between Naomi's 20th and 25th months? Did the adults supply some evidence that could help the child learn about this semantic distinction used in English? From some recent literature on child language, we might expect that the adults would *not* use a meaning that is not yet in the child's system. Retherford, Schwartz, and Chapman (1977), Snow (1977), and van der Geest (1977) have suggested that adults limit the content of their speech to match the type of content used by the child while they express this content in syntactic forms that are more complex than the child's. Thus, the child would have an opportunity to learn particular syntactic forms at the time that it was appropriate. Changes in the content the child intends to express presumably result from the child's nonlinguistic cognitive development. The notion that language simply encodes ideas that come about through the child's interaction with his nonlinguistic environment has been very influential in recent years. Although this framework seems reasonable for many aspects of the young child's semantic development, it would seem worthwhile to keep in mind the possibility that *language* may play some role in language development as well.

Within the cognitive development model, parents would introduce new meanings only when the child had given evidence of readiness by trying to express the meaning with still-primitive forms. Snow (1977) gave a hypothetical example involving past to illustrate this:

> Child: See Grampa.
> Mother: And what did Grampa give you when you saw him [p. 48].

If my data support the cognitive development position, the parents would not use reference to Earlier Past before the child used past in topic initiations to refer to events that occurred earlier. However, in fact, there were some parental comments and questions about Earlier Past from 22 months, as shown in Table 1.2. Some examples:

> (22 months; talking about an outing earlier in the day)
> Adult: Did you go on the slide?
> Child: Go slide.
>
> (24 months; playing with a doll)
> Child: What's that?
> Adult: That's a handkerchief. You were using it yesterday as a blanket for your baby.

TABLE 1.2
Proportion of Nonimitated References to Past that Referred to Earlier Past

Age	Adults	Child
20-21 months	.00	.00
22-23 months	.21	.00
24-25 months	.17	.00
26-27 months	.88	.68
28-29 months	.72	.32

As further evidence that the child was not always the leader in expressing new semantic content, we find that even after Naomi began to express the meaning Earlier Past, it was not in Topic Initiations but in Responses to parental Initiations. In fact, there were only two instances in the data (of 253 past references) that were similar to Snow's example, where Naomi mentioned events outside the current situation spontaneously, and these both appeared after 26 months:

(26 months; child and mother are eating breakfast; Naomi looks into the living room)
Child: Daddy broke the fireplace.

(29 months; child is objecting to putting on her training pants)
Child: I can't go in my training pants. Yestermorning I wear diapers.

In other cases, it is the parent who introduced Earlier Past, with no stimulus from the child. Some examples before 26 months have already been given. The following examples are from the period after 26 months:

(27 months; talking about what is being cooked for dinner)
Child: I want to cook my chicken.
Adult: It's in the oven. It's cooking in the oven. (pause) What did you do today with Kimberly, honey?

(29 months; child is playing with a doll named Alexandra)
Adult: Who gave Alexandra to you?

In these data, for this semantic domain, the parents did not limit the semantic content of their speech to what the child was already attempting to express.

Not only did Naomi *never* introduce the intent to refer to Earlier Past in the period between 20 and 25 months, but we cannot look to her receptive abilities either as an explanation for the parents' usage. She responded to Earlier Past usage with unrelated responses or with imitations, as in:

(22 months)
Adult: What did we do outside?
Child: Outside.

Then why were there references to Earlier Past by the parents in the child's 20–25 month-old period studied here? Perhaps they were insensitive to Naomi's semantic limitations, or misled by the existence of her emerging past tense forms, which were used for Immediate Past. But the data shown in Table 1.2 do not seem to suggest insensitivity to the content of the child's speech. The more interesting possibility is that these parental references to Earlier Past served to introduce the child to a new idea through linguistic interaction. In suggesting that the parents introduced the child to a new idea, I do not mean to claim that the parents "taught" their child to use past tense in the strongest sense of "teach." Surely certain characteristics of mental functioning that are often discussed under the heading "cognitive development" are necessary for the child to benefit from exposure to this semantic distinction. There is ongoing research in a number of areas that may help refine our understanding of the nonlinguistic substrata for language development. Two areas that seem especially relevant for the acquisition of temporal reference are research on the development of memory in young children and research on the ability (and inability) of nonhuman primates to acquire symbols encoding various conceptual domains.

Given the necessary conceptual underpinnings, the semantic distinctions made in the model language can affect further cognitive development, as has been argued by Vygotsky (1962), Blank and Allen (1975), Bowerman (1978), and others. That is, at a certain point, having *some* language permits the expansion of thinking into new areas. I would suggest that once the step of symbolic reference is attained, conceptual development can never thereafter be separated from language development, because the presence of words makes possible a qualitatively different kind of thought that constantly builds upon itself. Conceptual-linguistic development must be viewed as an everwidening spiral, with each change reflecting what has occurred before.

In this case, the parents' reference to events outside the immediate situation may have functioned to provide support for the child's developing cognitions. The child studied here began to acquire the forms that are used to signal past in English over a limited conceptual domain, commenting on what just happened and answering questions about such events. The emerging abilities to deal with past reference in the "easy" sense seemed to create opportunities for learning to use past in the more abstract sense: reference to earlier time.

CONCLUSIONS

The first goal of this study was to describe the emergence of reference to absent objects and past or future events in the conversations of a child and her parents. These conversations were not *exclusively* about the here and now, although most of the talk focused on current perceptions and events throughout the period studied. When reference to absent objects and reference to Earlier Past and

Future first appeared in the child's or parent's speech, it posed difficulties for communication. Successful reference was typically within the framework of a few, highly constrained topics that I have called "conversational routines." In talking about absent objects, the earliest routines usually involved asking about the location or activities of a unique referent, thus avoiding the problem of establishing agreement on the topic. When Naomi was learning about Earlier Past, the events of that day rather than the more distant past were likely topics of conversation.

As the child developed, reference to objects and events outside the current context became more frequent and the range of topics that was appropriate to discuss broadened systematically. By the end of the period studied, when Naomi was 3 years old, she could engage in conversations about shared past experiences and nonpresent objects with no support from the immediate situation. Both the parents and child related their current perceptions to prior experiences and knowledge, and Naomi began to make spontaneous comments that indicated some interest in the sequencing of events, particularly in what was going to happen later in the day or the next day.

On the other hand, around 3 years of age, interactions about absent objects, past, and future were still relatively rare, with the great bulk of talk about the here and now. Displaced topics were typically initiated by the adult and such conversations were very short; Naomi always returned to comments about the immediate situation after a few turns.

Although considerable development takes place during the 12–36-month period studied here, the child's abilities as a conversational partner continue to change throughout childhood. One example of an area deserving further study is the growth in knowledge about how to specify topics for the listener. Examples given here showed that, at 3 years, Naomi had great difficulty in choosing descriptive information to help her listener understand her meaning. Successful conversation with children often depends more on the skill of the adult in guessing and/or probing than it does on the skill of the child in supplying relevant information.

Deciding *what* to include in talk is complex, involving not only linguistic skills but judgments about relevance for the topic and for the listener. We would expect to find not only developmental changes in such an aspect of language use, but individual differences in the level of ability attained as well. The large literature in the area of "referential communication" represents one way to study this aspect of development, but other methods are currently adding to our knowledge about this important topic. See, for example, Cazden (1979) for a discussion of recent work on the analysis of natural conversation and Olson (1977) for perceptive comments on the relationship between spoken language and the development of writing skills.

The second goal of this study was to explore reasons for the development observed, especially in terms of the parent-child discourse. For both spatial and

temporal displacement, there are context-bound language forms that serve as precursors to the development of reference to absent objects and past or future events. The child initially learns to refer to objects or actions by hearing words in the context of those objects or actions, and later uses those words independent of contextual support. Phrases like "Do you want X?" also take on meaning because they are initially combined with nonverbal cues to the semantic intent (Zukow, Reilly, & Greenfield, 1982). Here, we have seen that the word "where," which formed the basis for many of the early conversations about absent objects, first had the limited and concrete meaning, "point to object named," and only later acquired the more abstract meaning "specify location or activity." In acquiring past reference, consistent with results of previous research, the child observed here commented on just-completed events in the immediate situation for some time before she used her language in the more abstract sense, to refer to events that had occurred at an earlier time.

For each form in the language that has an abstract meaning, then, we find a more concrete or limited meaning underlying it. We will call this meaning the "original meaning," suggesting that it provides both the origin of usage of a linguistic form and the basis for further learning.

The aspects of language studied in this paper are both lexical and syntactic. In the case of past tense, the semantic distinction is reflected in terms of syntactic as well as lexical choice in English. Similar suggestions about the development of linguistic forms have been made recently elsewhere. In the acquisition of certain aspects of syntax, de Villiers (1980) argued that a limited prototypical form (Rosch, 1978) provides a core around which syntactic knowledge is structured. Slobin (1982) has described the beginning of syntax as the pairing of a "prototypical event" with a "canonical form." The meaning of the canonical form gradually becomes extended to encompass more than the meaning of the prototypical event.

For the semantic-syntactic domains here, the parents initially used linguistic forms in situations that clarified their original meanings, e.g., the point-elicitation meaning of *where* (asking *Where's baby?* when looking at a picture of a baby in a picture book) and Immediate Past (*You dropped it* right after Naomi dropped something). Anglin (1977) has shown that parents teach object names in the context of good examples of those objects. Similarly, in introducing words that are not object names, certain types of situations may make the underlying concept easier to grasp. It would be consistent with the suggestion made here and by Slobin if there is also some consistency from parent to parent in the situations in which various nonobject words, grammatical morphemes, and syntactic forms tend to be introduced.

As well as using the word or morpheme in a semantically transparent context, the parents used the forms in various types of discourse structures that could help the child acquire the original meaning. Examples of discourse phenomena involving Immediate Past that appeared in these data are Encodings (putting into

words something that is noticed in the situation, as if talking for the child, as in *Georgie bumped his head*), Expansions, Clarification Requests, Queries with Supplied Answers (Adult: *What did you do? You bumped your knee*), Queries in which Imitations serve as Answers (Adult: *Did you fall down?* Child: *Fall down*), and Instructional Queries (questions to which the adult knows the answer). Of course, some of these discourse structures place more demands on the child than others, and we would predict that the ones with less child participation would be more frequent at earlier stages in the child's linguistic development. There were too few instances of the various types in my data to be able to test this notion statistically.

Once the original meaning of a word or morpheme is established, then the semantic domain can be extended to include the more abstract meaning. Many of the examples in this paper illustrate the way in which the semantic domain was enlarged for *where* and past tense in Naomi's data. Extending the semantic domain necessitates finding some way of talking about the abstract topic that will be understandable to the child. A metaphor I find useful is that there must be a *wedge* that enlarges the old meaning. The wedge is a form of expression that creates a link between the original meaning and an expanded, more abstract semantic domain. The form used as a wedge need not be identical from child to child, but we might expect that these linking forms would share certain characteristics. They build closely upon shared knowledge and introduce the new meaning in a semantically clear context.[6]

In the acquisition of verbal responses to *where,* the wedge consisted of a few conversational routines about unique objects. Success in learning how to respond in these routines seemed to give Naomi the opportunity to discover that *where* meant "specify location or activity."

In the acquisition of Earlier Past, the initial wedge that opened up the more abstract meaning may have been questions about shared experiences. Here is an example of a conversation, in which Naomi seemed initially to understand little about the adult's intent and at first only responded by imitation.[7] However, eventually she realized something about what was required, responding *Go-go* to *What else?*. The mother was presumably successful in eliciting a relevant response to her Instructional Queries about Earlier Past from Naomi because she provided sufficient cues to lead Naomi to recall the shared experience.

Adult: Did you go on the slide?
Child: Go slide.

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[6]Just as prototypical situations may be similar across adults talking to children, the choice of wedges may also be predictable to some extent. A number of other researchers have indicated to me that they find early examples of reference to the location of absent individuals, such as *Where's Daddy?*, in their data.

[7]Keenan (1975) has pointed out that, for the child, imitations serve in conversations to take a turn. Here, they sometimes function as appropriate answers as well.

Adult: What else did we do outside?
Child: Outside.
Adult: Did we ride the tricycle?
Child: Tricycle.
Adult: What else?
Child: Go-go.
Adult: Right, we rode the go-go.

Another way to establish context for Earlier Past conversation was to mention a location Naomi had been in earlier, or a person Naomi had been with earlier, as in *What did you do today at Kimberly's?*

We would predict that conversations about shared experiences would be easier than conversations about the child's experiences without the adult. We would also predict that conversations with more clues as to the context in the past would be easier than conversations with few clues. The question that was used in the anecdote at the beginning of this paper, *What did you do today?* should be harder than *What did you do today at Kimberly's?* To the extent that caregivers provide opportunities to engage in these "easy" conversations, acquisition of the more abstract meanings may be facilitated. This does not mean, of course, that children cannot acquire the more complex meanings without such experience. Optimal input may make certain aspects of acquisition easier, but may not be necessary (cf. Nelson, 1980). Clearly, we are just beginning to explore the complex relationship between caregiver-child discourse and language learning.

Furthermore, information about the frequency or even presence of particular discourse strategies is needed before we attach importance to them as influences on the child's language acquisition. The interactions analyzed here were typically those in which "just talking" was on the agenda. The speech used by an adult to a child is obviously influenced by the adult's view of the goal of the communication. The structure of free-time conversations would be different from interactions in which the adult had other goals such as caregiving, explicit instruction, or trying to make the child be quiet. For example, Hall and Cole (1978) showed that adults were much more likely to ask questions, particularly of the instructional type, if they perceived their task as teaching. The adults' goals were to some extent influenced by situational cues (children were less likely to be instructed in a supermarket than in a classroom) but to some extent independent of it (a supermarket could be a situation for instruction). The amount the individual caregivers play with, instruct, control, or ignore children varies, and both the causes and the effects of this variation deserve further study.

Cultural values and beliefs also influence early caregiver-child discourse, and recent work by Schieffelin (1979) on the development of communicative competence in children in a Papua, New Guinea tribe, the Kaluli, shows the importance of comparative studies for our understanding of the role of input in language learning. Discourse among the Kaluli is different from middle-class American discourse in many ways. Schieffelin and Eisenberg (in press) have examined

conversations about the past in the Kaluli data and data from middle-class families in Northern California. In the American families, the patterns are similar to those reported in this paper in that the earliest past references were often about shared experiences and the adults used language (especially queries) in an instructional manner. However, such "instructional" conversations never occur among the Kaluli, because talk for its own sake is actively discouraged by the caregivers, and asking children questions about shared information would be viewed as "to no purpose."

With these cautions in mind, I suggest that we look carefully at the child's opportunities to learn other aspects of syntax and semantics in discourse with adults. The following general principles are suggested:

1. We might expect to find original meanings for both words and syntactic forms. These simple, earliest meanings will be closely tied to the child's existing perceptions and knowledge.
2. Various uses of language in discourse, such as Expansions, Clarification Requests, Queries with Supplied Answers, and Instructional Queries, may help the child recognize the mapping between language and meaning.
3. Once the original meaning is established, the meaning of the linguistic form can be enlarged by introducing wedges, where a "wedge" is defined as a use of the linguistic form that relates the old, simple meaning to an expanded, more abstract semantic domain.

The relationship between semantic intention and syntactic realization in the child's developing language has been described as following the principles "New forms express old functions," and "Old forms express new functions" (Bloom, 1970; Slobin, 1973). These same principles can be seen in the relationship between linguistic input and child speech. Once the child knows a form to express a particular function, the input can show the child that the "old form" can be extended to a "new function." In these data, for example, one old form was "use of past markers to refer to Immediate Past" and the new function introduced by the parents was "reference to events that occurred earlier in time."

Thus, the child is exposed to new ideas through interactions with adults. The adults do not deliberately structure their language to teach, but, in the course of quite ordinary everyday talking, they use what the child already knows to provide opportunities for the child to learn something new.

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