# Coherency in Children's Discourse[1]

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*We provide evidence that the capacity of young children to engage in social interaction exceeds that suggested by Piaget (1926). Rather than being collective monologues, the conversations between the subjects of this study (twin boys) were dialogues: the children attended to one another's utterances and provided relevant responses. This was observed for conversations which were referentially based as well as for sound play exchanges. This is not to say that the children experienced no difficulty in sustaining cooperative discourse. It could take a speaker several turns to secure the attention of the coconversationalist and establish a discourse topic.*

## INTRODUCTION

Over the past year, we have been looking at one aspect of language development that has so far received little attention in the literature, the development of conversational skills in young children. Our interests are both sociological and linguistic—sociological in that a knowledge of conversational rules involves social knowledge, some aspects of which will be culture

dependent while others may obtain universally, and linguistic in that the child's ability to use language relevantly and appropriately will be an integral part of language acquisition as a whole.

When we speak of conversational skills, we mean many things. They include the child's ability to understand the literal and conveyed meanings of utterances, his knowledge of felicity conditions for speech acts, and his conformity to conversational maxims (Grice, 1968), such as making contributions that are relevant, informative, sincere, and so on. However, rather than dealing with these specific pragmatic skills, we will consider one type of behavior that is a necessary prerequisite for conversation, a capacity for joint attention. No conversation is possible without some degree of mutual attentiveness on the part of interlocutors. Therefore, we begin our inquiry into the emergence of conversational skills by asking to what extent young children exhibit a capacity for attentiveness in verbal encounters. We also ask to what extent young children expect attentiveness from others.

The developmental literature on prelinguistic interaction between infants and their caretakers suggests that an interest in social stimuli appears within the first few weeks of life, and probably involves a biological predisposition. By the third month, according to Wolff (1969), Stern (1973), and Richards (1974), infants are able to employ eye contact, social smiling, and vocalization to engage in sequenced interaction with adults. Toward the end of the first year (Schaffer, 1971), young children acquire the ability to synchronize their eye gaze with that of adults and thus to focus more easily on the same object as their interactional partner. The kinds of devices that an adult must use to direct a child's attention toward an object will become increasingly conventionalized as the child develops. To begin with, it may be necessary to pick up an object and shake it; later, it will be possible to gain the child's attention by pointing and vocalizing; later still, linguistic means alone will suffice. Similarly, the child's capacity for bringing objects to the attention of others will go through a parallel progression during a period from about 9 to 24 months (Bates *et al.*, 1972).

However, these data about the ability of young children to engage in social interaction seem to contrast with reports about the capacity and willingness of older children to do the same. Piaget (1926) suggests that even children as old as 5 or 6 years are reluctant to attend to one another's utterances. It is claimed that, for the most part, children talk alongside one another but not with one another. The child's "egocentrism" prevents him from adapting or addressing his speech to a listener, and it also hinders him from adopting the perspective of his interactional partner. His utterances are not contingent on the listener's showing signs of understanding, and therefore

he does not expect the listener to respond appropriately. It seems to follow as a corollary of this that the egocentric child is unable to consider seriously the conversational contributions of others. Thus children together produce collective monologues rather than dialogues.

We have found, however, that Piaget's claims about the structure of conversation between children do not carry over to the two children who form the subjects of our study. Here it is frequently the case that the speaker *does* make the continuation of his utterances contingent on the addressee's responding appropriately; and it is also the case that the addressee will often adapt his utterance to the form or content of the previous speaker's utterance. To this extent, then, we feel that the capacity of young children to engage in dialogues has probably been underestimated and that the properties of these interactions deserve further study.

## METHOD

Let us describe briefly the kind of observations we carried out. Our subjects are twin boys, Toby and David, aged 2 years 9 months at the outset of the research. The twins have been taped and videotaped each month over a period of one year. The primary setting for the recording has been the twin's bedroom during the early morning hours. This was selected because it provides a situation in which the children interacted totally outside the presence of an adult. Since most of the literature on children's conversations is based on child-adult interaction, we felt it would be valuable to broaden this data base. Furthermore, this setting constitutes a social environment which is rather different from that usually considered by cognitive psychologists. In most cases, children are observed in a laboratory playroom or a nursery school; usually talk accompanies some absorbing nonverbal activity. In the bedroom situation that we examined, however, the children conversed in semidarkness, with only a set of stuffed animals as playthings.

We believe that the contrast in setting is worth stressing, since any serious study of conversation, whether for adults or children, must take into account the part played by the physical and social context. Norms of conversation which hold in an active play situation may not carry over for other situations. So, for example, in this case, mutual attentiveness may play a much greater role than has previously been observed, since the main source of cognitive stimulation for the twins is verbal interaction rather than play with toys and the like. Of course, this also means that many of our conclusions are "context dependent"; it will be necessary for many more investigations of

different social situations to be carried out before firm generalizations can be drawn. (Vygotsky, 1962, has made a similar point about the context dependence of the work reported by Piaget, 1926.)


## THE ACHIEVEMENT OF CONVERSATIONAL EXCHANGES

### Assertion and Acknowledgment

Conversation is a social task, and participants must "work" (Sachs, 1970) to achieve conversational coherence. The extent of this work is not usually perceived by competent language users, who can take for granted that their addressee will comprehend without difficulty conventional devices for making adequate reference, and for performing various kinds of illocutionary acts, such as commanding, questioning, and promising. For young children, however, these assumptions cannot always be held. It is easier to see the "work" they must do to execute even comparatively simple types of speech acts, such as asserting propositions.

We hypothesize that because young children do not have total command of semantic and pragmatic conventions, they require a much greater degree of feedback from their addressees than do fully competent users. We find support for this claim from evidence that Toby and David observe a conversational norm which obliges the addressee to routinely acknowledge the speaker's utterance. It is on this relation between an utterance and its expected response that we have based our notion of conversational coherence. This will be developed by examining first the category of *assertions* and second the class of *relevant responses*.

We are here using "assertion" in a familiar sense: If someone asserts a proposition, then he is claiming that, given the way things possibly could be, some of those states of affairs can be ruled out of consideration as false. He is defining which of the possible states of affairs are truly the case. Like adults, children can express propositions about situations which are nonactual; they can also acknowledge that they are only "pretending." But whereas adults use conventional markers for signaling that a statement should be taken as hypothetical, or as part of a story, children's counterfactual statements are often unmarked. We have decided to use the term "assertion" loosely, to cover statements intended to be true of the actual world *or* a fantasy world. We have also separated out a third category of "assertions," that of *self-description*. This seems to be justifiable at a pragmatic rather than a semantic level. Although the truth-conditions of self-descriptions are basically

the same as for actual world assertions, they tend to occur in situations of rivalry, and therefore receive a response that includes an action plus a corresponding self-description.

| Types of assertions: | Examples: |
|---|---|
| a. Self-descriptions: The child accompanies his actions by a linguistic representation of what he is doing. | 1. 'I got feathers/<br>'I got/ I got 'big one/<br>'I rip it now/ |
| b. Actual-world assertions: These make claims about what is actually the case in the real world. | 2. "A" "B" "C" in there/<br>(naming letters in alphabet)<br>3. [i:] moth/<br>(pointing out a moth)<br>4. some in there/<br>lots in there/ |
| c. Fantasy-world assertions: The child asserts that something is the case in a fantasy world situation. | 5. oh/ house broken/<br>oh dear/ very quiet/<br>all very quiet/ |

Most of the utterances that we have classed as assertions would fall into the category that Bloom (1970) calls "comments." She contrasts these with her category of requests or "directions" in that, unlike the latter, they "do not attempt to influence the behavior of the receiver" (p. 22).

While we accept that the illocutionary forces conveyed by the acts of asserting and commanding are quite distinct, we nevertheless feel that the criterion proposed by Bloom for distinguishing the two is not entirely adequate. With Toby and David, the utterance of an assertion can be associated with an "attempt," on the part of the speaker, "to influence the behavior of the receiver": It typically initiates an obligation that the addressee should attend to the topic of the utterance, and an obligation that the addressee, if he responds at all, should make his response relevant. In other words, the addressee should be able to provide evidence that he has correctly interpreted the speaker's utterance (*cf.* Sachs, 1970, for a discussion of this). Addressee obligations are taken for granted by adult speakers, and there is usually less pressure on the addressee to demonstrate explicitly that he has performed the task in a competent way. However, we have observed that Toby and David require each other to routinely acknowledge assertions in an appropriate way.

Such acknowledgments seem to fall into five main subcategories, al-

though these are not mutually exclusive; some conversational turns will contain more than one type of relevant response:[4]

|                                                                                                                                       |                                                                                                  |
| ------------------------------------------------------------------------------------------------------------------------------------- | ------------------------------------------------------------------------------------------------ |
| Types of relevant responses:                                                                                                          | Examples:                                                                                        |
| a. Basic acknowledgment: The simplest form of acknowledgment consists of a direct repetition.                                         | 6. — big one/ no/<br>    big one/<br>— big one/<br>7. — Mommys silly/<br>— Mommys silly/          |
| b. Affirmation: The addressee explicitly agrees with the speaker, i.e., accepts that he has expressed a true proposition.             | 8. — got feathers/<br>    got feathers/ . . .<br>— oh yes/<br>9. — big one/<br>— yes/             |
| c. Denial: The addressee negates a proposition expressed by the previous speaker.                                                     | 10. — Jack and Jill/<br>— no Jack and Jill/<br>11. — cradle will rock/<br>    cradle fall/<br>    cradle will rock/<br>— no cradle will rock/<br>12. — you silly/<br>— no you silly/ |
| d. Matching: The addressee claims that he is performing an action similar to that described in the previous speaker's utterance.      | 13. — 'I find feather/<br>    'I find feather/<br>— 'yes/ 'I find (?)/<br>    'I get one/ now 'I get good one/ I get 'good one/ a 'big one/ |
| e. Extension: This category comes closest to being a "relevant" response by adult standards. The addressee predicates something new of the same individual or object that was referred to by the previous speaker. | 14. — [i:] /<br>    [i:] raining down/<br>— [i:] raining some up there/<br>— [i:] raining again/<br>15. — flower broken/<br>    flower/ . . .<br>— many flowers broken/ |

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[4]The dash, —, indicates alternate speakers.

Responses of this sort are routinely provided by coconversationalists. Their prominence suggests that a norm obliging verbal acknowledgment of assertions does obtain between these interlocutors.

Equally important are those instances where a response is not forthcoming. In many of these instances, it is clear that the speaker expects verbal recognition of his utterance. The child whose assertion does not receive a suitable response may, for example, react by repeating his original utterance until the addressee conforms to the norm. The following example illustrates this point:

16.  − goosey goosey gander. . . ./
     − [i:] [5] moth/ [i:] moth/
     − goosey goosey gander, where shall I wander. . . ./
     − [i:] moth/ [i:] moth/ [i:] moth/ [i:] moth/
     − upstairs downstairs in the lady's chamber. . ./
     − [i:] moth/ [i:] moth/ [i:] moth/
     − [i:] (?) moth/
     − gone moth/ allgone/

In this context, "goosey goosey gander . . ." is not a relevant response. It is not accepted by the utterer of "[i:] moth," who, in turn, perseverates with his utterances until the other stops singing and takes note.

## Competence in Asserting

The kind of exchange represented by (16) reveals other important dimensions of the development of pragmatic competence in children. It shows that the process of expressing propositions can be a complex affair. Let us consider roughly what is involved in such a process.

At the most basic level, a child must come to understand what it means to assert that the world is a certain way. Both as speaker and as hearer, he must recognize that assertion comprises, first, a reference to an object which constitutes the subject or topic of the assertion and, second, a claim that a property holds of that object. Evaluation of any given assertion (e.g., as true or false) demands that at least these semantic properties be understood.

Asserting involves other sorts of competence as well. Users of language assume that their conversational partners share with them certain basic knowledge about the world. Some of this knowledge concerns interactional conventions, some concerns linguistic conventions, and so on. Following Stalnaker (1972), we can call the set of background assumptions shared by

[5] Deictic particle.

both speaker and hearer *pragmatic presuppositions.* Suppose, for example, that an adult speaker $S$ points to an object $X$ and utters to a hearer $H$ the sentence "the flower is broken." Then if $S$ is using the sentence appropriately in that context he must be pragmatically presupposing (a) that $H$ is able to perceive $X$, (b) that $H$ knows that $X$ is a flower, and (c) that $H$ is currently attending to $X$ (Atkinson and Griffiths, 1973).

However, in the case of young children, although the speaker may presuppose that the hearer can attend to the object in question, he may not always presuppose that the hearer *is* attending to the object. A critical task for the child is, in fact, to assure that the addressee is attending to the topic at hand. This task is not always an easy one. The ethnomethodological literature, for example, devotes considerable attention to the problem of topic handling, topic shift, and so on among adult speakers (Sachs, 1970). Children, however, appear to experience even more difficulties in introducing topics than do adults. Their task is rendered more manageable when the "topic" is an actual object in the environment that both speaker and hearer can perceive simultaneously. A new thing to look at is a new thing to talk about. Thus in (16) the utterance "[iː] moth" draws attention to an interesting object in the setting—a moth flying about in the room. "[iː] moth," then, seems to be a demonstrative utterance like "there's a moth" in adult English.

Notice also in (16) that "[iː] moth" is repeated several times and subsequently "moth" serves as a topic for further conversation. This pattern appears frequently. The pragmatic operation of introducing a new individual into the domain of discourse is sometimes carried out separately from the semantic operation of predicating something about it. Gruber (1967) has noted this in his discussion of topicalization. Examples (17) and (18) are further illustrations of this point:

17. — tree/ tree/ see got grass/.
    — yes/ I see it/ I see it/
18. — A battery/ this is battery/ this is battery/ look/ I find battery/
    — I see/ that JiJi's/
    — oh no no/ that David's/ oh no no/ that JiJi's/ that's steam roller/
    — battery/
    — it's comin'/

Both children show concern that the other should identify the correct individual and should acknowledge having done so. In many instances, we find requests that the addressee should "look" or "see" in order to identify the correct object. The response often found, as in (17) and (18), is "yes, I see." Devices like ostension, high pitch with increased amplitude, and repeated

requests for attention are often found together if one child wants to change the topic.

After a new topic has become established, and both children can take for granted that they are talking about the same thing, it becomes possible for them to use pronouns anaphorically. Thus *one* in (13) "I get one" and *he* in (20) "he goed/ on the ceiling" both refer back to an object that was introduced earlier in the conversation. The referent has become part of the context in that both children can presume, or take for granted, that the object has been identified and located within their mutual sphere of attention. Anaphoric pronouns are used with similar presuppositions by adult speakers. The most striking difference lies in the rapidity with which topics are exhausted by Toby and David. However, the instances we have cited of anaphoric relations across the utterances of alternate speakers probably constitute an initial step toward the much more complex, and highly structured, relations of shared topic and relevance in adult discourse.[6]

## Coherence Through Formal Modification

A theme throughout this paper has been that coconversationalists, particularly young children, have to work to achieve a coherent and sustained dialogue. We would like to suggest in this final section several strategies used by young children to achieve this end.

In talking about the coherency of *adult* discourse, linguists and sociologists disagree on a number of issues. One point they might all agree on, however, is that the utterances at hand can be assigned some referential interpretation. Utterances exchanged by adults are referentially meaningful as well as sociologically meaningful (e.g., the noun phrases in them refer, the sentences are true or false). Indeed, many researchers might argue that it is difficult if not impossible to conceive of a conversation that does not contain referentially interpretable utterances. However, in the conversations of Toby and David, we find just this situation. We find conversations sustained for 20

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[6]It has been claimed that conversation which focuses on objects in the environment is "redundant" with respect to the context (see, for example, Halliday, 1973; Bloom, 1973; Piaget, 1926). In Piaget's framework, such conversations will be characterized as "egocentric." The speaker is failing to "adapt information" to the needs of the listener, if he is only saying what is already "obvious." However, in our terminology, an utterance will be redundant only if it is presupposed to be true. We have argued above that a demonstrative utterance will be presupposed to be true if it is presupposed by the speaker that the addressee is already attending to the object being pointed out. But this is not the case in the examples we have given. Rather, in this context, the speaker seems to be entirely correct in his assumption that the object is not being attended to.

turns or longer in which the utterances are referentially meaningless. They are exchanges of nonsense, what has been referred to in the literature as *sound play* (Jakobson, 1968; Weir, 1970). In these exchanges, the children attend closely to the phonological shape of one another's utterances and repeat or modify slightly a sequence of sounds just produced:

19.  — [apʃi:] [autʃi:] (2X) [o:tʃi:] [o:ʃabatʃ]/
  — [ʃa:] [ʃabatʃ]/
  — [ʃo:babat]/
  — [ʃo:babat] [ʃobabatʃ]/ (laughs)
  — [ʃo:bababatʃ]/
  — [ʃo:batʃ]/ (laugh)
  — [ʃo:batʃ]/
  — [baptʃ]/
  — [ʃo:batʃ]/
  — [batʃi] [bitʃi] [badi] [bidi] [babi]/
  — [badi]/ (laughing)
  — [daenju]/
  — [latla:ju]/
  — [latlodu] [latlogu]/
  — [latlodo]/
  — [bau:] (laughing) [gali] [gu:du]/
  — [i:ja] [gi:ja]/
  — [gi:ja] (both laugh) [dabu:t]/ (15 times)
  — [daˈbu:t] [dˈa:but]/
  — [da:ˈbu:t]/ (repeats over and over)
  — [gal] [gʌl]/
  (continues with interruptions for a further 20 turns)

We have here a conversation which is coherent on a social level in that it is a single speech event, sound play. It is also coherent formally in that the utterances contain closely related phone sequences. It is possible to talk about a coherent set of conversational turns, then, without involving literal meaning. These kinds of exchanges occur throughout Toby and David's dialogues. One finds a stretch of referential discourse followed by a stretch of sound play and so on. Indeed, it is tempting to say that sound play occurs when a topic or set of topics has been exhausted by the speakers. A lexical item appearing in the referential exchange becomes a formal starting point for sound play:

20.  — [i:] [7] moth/ (3X)
  — [i:] (?) moth/

[7]Deictic particle.

       &minus; gone moth/ allgone/
       &minus; two moths/
       &minus; many moths/
       &minus; mmm/ many moths/ (2X)
       &minus; he goed/ on the ceiling/
       &minus; [i:] gone/ [i:] [gabɔlp]/
       &minus; [i:] [gab]/ [i:] [golb]/
       + [i:] [golb]/
       &minus; [golb]/
       &minus; [i:] [golb]/ [i:] [gal]/ [i:] [gal] [golb]/
       &minus; [ɛ:] [golb]/
       + [ɛ:] [golb]/
       &minus; [ɛ:] [golba]/ (3X) [ɛ:] [broba] /(2X) [ɛ:] [bruba] / [ɛ:] [brebroba]
          [ɛ:] [grebal]/ (5X)
       &minus; [ɛ:] [grebal]/
       &minus; [greba]/ (2X) [ɛ:] [zik]/
       &minus; [i:] [zik]/[8]

    One strategy children use to sustain a state of cooperative talk is then *Focus on phonological shape of a given utterance and modify it.* This strategy brings out the importance of separating the child's *willingness* to cooperate in talk from his *skill* in cooperating in talk. It is clear from these observations that even when the child is unable to maintain a referential talk-exchange he is still willing to interact verbally. Each child is attending closely to the other's utterances and responding appropriately; he is simply not processing utterances semantically.

    Well, what about the dialogue that does have referential meaning? We would like to suggest that in producing socially appropriate responses, young children again rely heavily on the form of one another's utterances. This in itself is not a novel observation. Anyone who has ever worked with child language is sensitive to the fact that children often repeat utterances presented to them. The present analysis differs from previous treatments in one important respect, however. We look at repetition as a resource that is available to the child for fulfilling his obligations at a *pragmatic* level. The use of repetition and formal modification as a device for constructing relevant responses has largely been ignored in the literature. Normally the child is observed repeating *adult* utterances, and attention is drawn to the difference in *grammatical* sophistication between the two. Here the interlocutors share approximately the *same* degree of linguistic competence, and the role of repetition outside grammatical development comes to light.

[8]Plus sign, +, indicates simultaneous speech.

For example, we have already noted that formal modification is an
important element in the construction of relevant responses to assertions.
Thus in (6) and (7) acknowledgment consists of simple repetition. In (10),
(11), and (12) denial is performed by simply prefixing a negative particle to
the previous speaker's utterance. However, the same device can be used in
constructing responses to speech acts other than assertions. So we have
commands followed by refusals, which are structurally identical to denials:

    21.  — `kiss it/
         — `no kiss it/

Similarly, yes-no questions (the most frequent type in the early conversations)
can be appropriately answered by a repetition:

    22.  — like 'that/
         — yeah/ like `that/

And, of course, assertions can be queried by repeating the utterance with a
rising intonation:

    23.  — going to `scratch/
         — going to 'scratch/

In general, then, formal modification serves as a basic resource for the
performance of many kinds of speech act pairs, and a general strategy of the
child may be *Focus on the formal structure of a previous utterance and
modify it (using the same lexical items) in your subsequent utterance.* This
strategy is similar to the one proposed for sound play. In one stretch of sound
play, a small set of phonological elements enters into alternations and
modifications; in any one stretch of referential discourse, a small set of lexical
items enters into alternations and modifications. In the first case, phonotactic
constraints are observed; in the second case, syntactic constraints are observed.
Further, it looks as if the formal modifications of referential and nonrefer-
ential (i.e., sound play) utterances can be described by a common set of
formal operations (see Keenan, 1974). One major modification focuses on
some element in an utterance and incorporates that element in the subsequent
utterance. In the case of sound play, the element may be a syllable or a
sound. For example:

    24.  — [i:] [ga:b]/ [i:] [golb]/
        + [i:] [golb]/
        — [golb]/

In the case of referential discourse, the element may be a constituent of any magnitude within a conversational turn:

    25.  — ˌMan get all wet/
         — ˌwet/
    26.  — ˌMommy to do/ Daddy to do/
         — ˌDaddy to do/

We call such a modification a Focus Operation. Often the focus operation is complex in the sense that is accompanied by some further modification. For example, an element may be repeated with a different prosodic contour:

       Examples of Focus + Prosodic Shift:
       (sound play)
    27.  — [ˇbɔt]/
         — [ˈbɔɪt]/
       (referential discourse)
    28.  — ˈflower broked/ ˋflower broken/
         — ˌflower/

Or elements may be added to the focused element. In some cases, the addition has the effect of expanding a given structure. For example, in sound play a syllable focused on may be expanded:

       Examples of Focus + Expansion:
       (sound play)
    29.  — [duː]/
         — [dutʃ]/

Or in referential discourse a constituent may be expanded:

       Examples of Focus + Expansion:
       (referential discourse)
    30.  — flower broken/ flower/ its flower broken/ eh/ oh/ end/
         — many many flowers broken/

Finally, elements may be added which do not expand the structure of the focused element but add new structure. For example, in the case of sound play, a focused syllable may be accompanied by other syllables:

    31.  — [du]/ (repeats over and over) (pause)
         — [fʌpi] [duː]/

In the case of referential discourse, a constituent may be embedded in a larger construction. For example, a noun phrase may be embedded as a predicate in a sentence:

32. — big one/yes/big one/
    — I got/ I got big one/

A second major operation tying utterances formally is Substitution. This operation simply takes an element within an antecedent utterance and replaces it with an element of the same category.

Example of Substitution operation:
(sound play)

33. — [giːnɔg]/(3X)
    — [giː nan]/ (repeats over and over)
    — (laughs)
    — [kiːtan] / (2X)

In referential discourse a constituent is replaced with a constituent of the same grammatical status:

Examples of Substitution operation:
(referential discourse)

34. — two moths/
    — many moths/

The similarity between sound play and repeated utterances in referential discourse is so striking that we should consider the possible relevance of one to the other.

We can consider the relation in at least two ways: First, the weaker claim is that sound play and heavy use of repetition in referential discourse cooccur developmentally and mark a certain level of conversational discourse. At this level, discourse coherence is achieved to a large extent by tying one's utterance to the formal properties of an antecedent utterance. Such a generalization becomes more plausible in looking at the conversations chronologically. At 2 years 9 months, a third of the exchanges are sound play. At the same time, repetition predominates as a mode of response in referential dialogue. For example, 57% of the responses to assertion are repetitions. By 2 years 10 months, sound play appears rarely and in referential exchanges formal modification begins to give way to propositional extension (the fifth category of relevant response). By 3 years, sound play is completely absent as a mode of dialogue, and a new form of imaginative play, involving metaphor and fantasy-world assertions, has appeared in its place.

A stronger claim would be to assert that sound play was instrumental in *developing* conversational skills. The child masters in play some skill he will later apply to specific tasks (Bruner, 1972). In this case, sound play could serve at least two ends with respect to conversation. First, in exchanging sound play, children practice attending to one another's utterances and acknowledging that they have done so. Second, the child gains skill in isolating and manipulating formal elements in antecedent utterances. This kind of selective attending is mirrored in referential exchanges when the child focuses on lexical items. Support for the instrumental nature of sound play comes from the fact that certain formal modifications are used heavily in sound play before they figure significantly in referential discourse. In particular, we see modification by substitution as a frequent device in sound play before it has this status in referential discourse. This suggests that an examination of sound play at any 1 month may allow us to predict what operations will be significant in referential discourse.


CONCLUSION

We have tried to suggest some ways in which young children can employ the context in the course of carrying out a coherent conversation. It is a task of competent social actors to show that they are attending to one another's utterances, and to be able to demonstrate that one has understood them correctly. Chidlren can fulfill this obligation even though they do not always process utterances at all linguistic levels. A relevant response can be constructed by means of fairly minimal, low-level processing, as we have tried to show in our discussion of formal modifications. On the other hand, if the child does process the previous speaker's utterance at the semantic level, the presence of salient objects in the physical environment usually serves as a focus for shared attention. In both cases, coherence is maintained.

More generally, in our approach we have tried to show that the two children we have observed are not passively acquiring the conventional forms of adult language. Rather, they are engaged in constructing conventions in the process of social and linguistic interaction. The use of concepts like "egocentrism" and "context dependence" sometimes suggests that there is a fundamental difference between the child's and the adult's use of language; it is therefore difficult to see how the transition between the two is made. By using different theoretical constructs drawn from semantics and pragmatics, we hope to have shown that the divergence is not so great as has been supposed, and that it is important to investigate in detail the way children use language in concrete situations.

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