Papers & Reports in Child Lang. Dev (Stanford) No. 10 1975

Elinor Ochs Keenan
University of So. California

EVOLVING DISCOURSE - THE NEXT STEP

INTRODUCTION:

In this paper I examine the transition in young children from highly repetitious conversational discourse to formally and semantically more diverse discourse. In previous papers (Keenan 1974b, Keenan 1975), I have suggested that the decline of x-utterance repetition was linked in part to the child's developing use of old information markers, such as anaphoric pronouns, definite articles and so on. For example, whereas at an earlier stage a child might respond to the utterance "Tractor's comin'" by repeating "Tractor's comin'", at a later stage the child might respond "It's comin'". Both responses are performing the same pragmatic work; for example, they both acknowledge the previous speaker's utterance, but the latter looks considerably more like adult discourse. Here I wish to focus on related dimensions of this critical transition. I would like to claim that the transition is marked by two developments: first, a development in the formal relation obtaining across utterances; second, a development in the semantic links obtaining between lexical items across utterances.

DATA BASE:

The present analysis is based on audio and video taped conversatio of twin boys, Toby and David. The children, 2 years 9 months at the outset of the observations, were recorded on 3 successive days each month for a year. The primary setting for the conversations was the children's bedroom in the early morning hours. However, conversations accompanying meals, baths and organized games were also recorded.

FORMAL RELATIONS ACROSS UTTERANCES:

In this section, I examine 'repetition' as a formal operation. Not all instances of x-utterance repetition are the same. The data show that when a child repeats a previous utterance, he utilizes two formal strategies (one or both): One strategy is to take an antecedent utterance and repeat all or part of it without interupting it in any way:

(1) (T+D at 2;11, bedroom)
(D picks up stuffed rabbit and truck. T begins to whistle)
D: rabbit(2X)/ I find truck/ rabbit/ (?) as like rabbit/ truck/ rabbit/ truck/ rabbit/ truck truck rabbit/ truck/ rabbit/ truck/ rabbit/ truck/rabbit/
(D shows truck and rabbit to T)
T: truck/ rabbit/

This relation across utterances I have called the Focus operation (Keenan 1974a): One or more lexical items in an antecedent utterance is 'focussed' on and repeated without disruption in subsequent utterances. Focus operations were characteristic not only of referential discourse; they also appeared in nonsense discourse or sound play:

(2) (T+D at 2:9, bedroom)
T: i:ja / gi:ja /
D: gi:ja /(Both T+ D laugh)/ dabut (15 X)
T: da:but (2X)/

A second strategy is to repeat part of an antecedent utterance but replace a lexical item appearing in the antecedent string with a different lexical item. Both the lexical item and its replacement perform the same semantic role in the utterances, e.g. both function as agents, vocatives, existential nominals, and so on:

(3) (T+D at 2;9, bedroom)

T: hello(3X)/ hello gramma(2X)/
D: hello grampa/

I have called such an operation a Substitution operation (Keenan 1974a). Substitution operations also appeared in sound play: a single phone or phone sequen is replaced in an antecedent string is replaced in a subsequent

string:

(4) (T+D at 2;9, bedroom)

D: i:bi:/ i:ji: /
T: i:ji: / i:ji:/ i:gɔd/ ,
D: (laughs) š/š/ i:ji:/i:kaki/
T: i:/ ɛ:/ i:gɔl/

Although both Focus and Substitution operations appear in the earliest discourse examined (2;9), Substitution was utilized far less frequently than Focus. Examining a sample of 500 utterances at 2;9, I found 235 tokens of Focus as opposed to 72 tokens of Substitution. I would like to argue that Substitution operations are more complex than Focus operations. In Substitution operations, the child/attends not only repeats, he to the constraints of a particular environment within an antecedent utterance and substitutesitems appropriate to that environment.

That Substitution is a more complex operation than Focussing is supported by the data:

1. Although at 2;9, both operations appear in sound play and referential discourse, Focus operations figure prominently in both contexts whereas Substitution operations are confined largely to sound play.(See Table 1). For example, of the 72 tokens of Substitution found in the 500 utterance sample, 49 (68percent) appear in sound play. If we agree that sound play is an inherently simpler form of speech behavior than referential discourse[2], then it appears that Substitution is limited primarily to "easy" discourse.

2. If we follow the use of these operations in conversational discourse from 2;9 to 3;0, we see that the ratio of Substitution to Focus increases. Whereas at 2;9 the ratio of Substitution to Focus was 1: 3.26; at 3;0 the ratio was 1: 2.09. In terms of gross number of occurences, the number of Focus operations decreases (235 to 161), whereas the number of Substitution operations increases (72 to 77).

3. Although the increase in occurences of sound play from 2,9 to 3,0 appears to be minimal, the gross total is deceptive. Breaking Substitution into sound play and referential occurences, we see that the number of referential Substitution operations increases sharply (23 to 70) , and the number of sound play Substitutions decreasessharply(49 to 7). The dramatic increase in referential Substitution (over 200 percent) is not matched in referential Focus (16 percent) during this time period.

To summmrize, at 2;9, Focus operations are used more widely and more frequently than Substitution operations. However, over time, Substitution operations come to be used more and more. The children begin to rely on Substitution in contexts where previously Focus operations predominated.

TABLE 1

OCCURENCES OF FOCUS AND SUBSTITUTION OPERATIONS
FROM 2;9 to 3;0
(Sample: 500 Utterances)

	2;9	3;0
FOCUS(Total)	235	161
Sound Play	98	1
Referential	137	160
SUBSTITUTION(Total)	72	77
Sound Play	49	7
Referential	23	70
ANAPHORA(Total)	8	45

THE ROLE OF SOUND PLAY IN DISCOURSE OPERATIONS:

The findings in Table 1 suggest that sound play plays an importan role in the development of more sophisticated discourse operations. In particular, sound play appears to function as a testing ground for the use of Substitution operations. That this is the case is

strongly supported by Table 1. For example, we see that Substitution operations figure more prominently in sound play than referential discourse at 2,9. Further, as Substitution operations begin to be regularly employed in referential discourse, sound play as a discourse mode begins to die out. By 3,0, sound play is nearly extinct. On the other hand, at 3,0, Substitution is an unmarked mode for acheiving discourse coherency.

Further evidence for the instrumental role of sound play in developing complex discourse operations comes from examining particular expressions of these operations. In particular, if we examine examples of Substitution, we see that two dimensions at least may vary: the number of items replaced in a single utterance and the number of successive utterances linked by Substitution operations.

Considering the first of these, we see that at 2,9, Substitution operations apply to only one item in referential discourse. There are no cases of multiple substitution. In sound play at 2,9, however, we find the discourse laced with simultaneous substitution of phone sequences:

((5) (T+D at 2,9, bedroom)
D: latlaju: /
T: latlodu: / latlogu:/
D: latlodo/

(6) (T+D at 2,9, bedroom)
D: hek^t/
T: bek^p/
D: brek^t/ brek^p/

Multiple substitutions appear in referential discourse at 2,10 and continue throughout the following months:

(7) (T+D,at 2,10, afternoon nap)

(Toy breaks)
D: mend it/
T: I might mend it now/
D: ah/(shrieks)/
T: I maybe fix it now/

(8) (T+D at 2,11, bedroom)
(D drawing on window with finger)
D: this is two/ thats one/

(9) (T+D at 3,0, bedroom)
(T relating narrative)
T: one day/ was little rabbit/.../one daywas big farmer left/

In terms of the number of successive utterances linked through Substitution operations, sound play again anticipates referential usage. Longer substitution dequences emerge in sound play before they emerge in referential discourse. This is particularly true in the case of substitutions involving other speakers' utterances. In sound play at 2;9, substitution across 3 or more turns occurs. (See examples 4,5,6.) . On the other hand, the substitution of lexical items is limited to a single exchange in referential discourse at this time (See example 3.). Longer stretches of discourse linked through Substitution appear at 2;10:

(10) (T+D at 2;10, kitchen)

(T+D eating lunch, facing one another)
D: whats this/
T: kamon:ni:z*/
D: no macaronis/ skɛti:z*/
T: sʌbatiskɛti**/

(*macaroni
**spaghetti)

By 3;0, sequences such as the following are routine:

(11) (T+D at 3,0, bedroom)
T: tractors coming/
D: my truck is coming/
T: cars coming so fast/
D: its going fast now/
T: cars coming/
D: cars coming now/ my cars coming now/
T: my big tractorscoming/

The suggestion has been in the air for some time that sound play may be instrumental in developing morphemic and syntactic structure(Jakobson 1941, Weir 1970). I would like to suggest that this sort of play is instrumental in developing discourse structure as well. This study supports earlier research carried out by Garvey

(1974, 1975) and by Keenan (1974a, Keenan&Klein 1974) that finds conversational skills in themselves a resource for co-operative play.

SUBSTITUTION AND SEMANTIC DOMAINS:

Much attention has been directed to the development of Substitution operations because these operations appear critical to the transition away from highly repetitious discourse. When a child uses Substitution operations, he sets up contextual frames in which particular lexical items are contrasted:

(12)(T+D at 2;9, bedroom)
(Both see moth)
D: two moths/
T: many moths/

(13)(T+D at 2;11, bedroom)
D: i:* raining down/
T: i: raining some up there/
D: i: raining again/
T: i: raining cold/
(*deictic particle)

(14)(T+D at 3;0, bedroom)
D: `I drive it/
T: `you could drive/ `you drive it/ `my drive it too/

The lexical items appearing in these frames have at least that environment in common . From the child's point of view, the items undergoing substitution share some feature, hence members of some semantic domain: items that refer to quantity(Exs 8,12), agents (or drivers, as in ex 14), things that move (ex 11), things to eat (ex 10) and so on. It is of course extremely difficult to assess the exact nature of the domain. It is difficult to judge whether, for example, in (11) the child thinks of cars, trucks, and tractors as vehicles or things that move or things with wheels and so on. However, it is the domain-creating process itself which is significant.

I would like to claim that the creation of lexical sets through Substitution operations is instrumental in developing discourse that is not bound by the here-and-now. As discussed in Keenan and Klein (1974), before Subsitution operations are prominent, the child relies heavily on items that are acoustically or visually salient in the immediate context in creating coherent discourse. That is, the child would make use of things he heard(e.g. repeating prior utterances) or things he saw in producing relevant responses. In substituting, however, the child goes beyond replicating what he hears or sees. Like the adult, the child draws on his background knowledge to respond relevantly to some prior utterance. The initial speaker also draws on his background knowledge in accepting the response as relevant to his contribution.

In examining the conversations between Toby and David from 2;9 to 3;0, I find that relevant next responses draw more and more from knowledge of semantic domains and depend less and less on the form of the previous speaker's utterance. The child stops relying primarily on repetition as a means of acknowledging a previous conversational contribution. Substitution operations create discourse that is intermediate to these stages. It is a form of repetition, and it is based on background knowledge.

In many cases, it looks as if the children's discourse is motivated by their interest in semantic paradigms. Conversations may at first focus on one semantic set and then drift on to other sets, leaving unresolved an initial discussion:

(15) (T+D at 3;0, bedroom)

T: my told you/ called shoes/
D: I told you/ its slippers/ I told you / its not shoes/ I told you not shoes/ it slippers/
T: its one slipper/
D: two slippers/ two slippers / I told you/
T: one slipper/
D: its one slipper/ I smack your ear/

In this discourse, the children are first concerned with things you put on your feet, and then move on to the quantity of these things present.

Monologues as well often move in and out of several domains as (16) illustrates:

(16) (T+D at 3;0)

(D looking at book)
D: Peter Rabbit was/// bunny/
T: // Mr. MacGregor/
D: was a tiny rabbit/ go hippity hop hippity hop/ two little rabbits/ left farmer/ lot of rabbits/,.....one day was little rabbit/ called Lucy/One day was big farmer left/ and left cow/....

In this narrative, the child replaces"bunny" with "tiny rabbit" and then goes on to discuss the quantity of rabbits ("two little" "lot of")and so on.

Notice in (16) that some of the utterances appear to play on what constitute binary contrasts in the adult lexicon. The child talks about something small ("little rabbit") and then goes on to refer to something big("big farmer"). This type of contrast is extremely common in the conversational data.[3] An item is referred to in an initial utterance, and in subsequent utterances an item that contrasts with it is incorporated:

(17) (T+D at 2;11, bedroom)

(T+D standing by window)
D: my hands are cold(2X)/ I go sit down there/
T(opening curtains): curtains up(2X)/ I so hot/ curtains up/

EMERGING DISCOURSE SKILLS:

The development of semantic domains in conversational discourse has far-reaching effects. One effect is that the child is able to offer alternative descriptions of the same phenomenon. That is, he is able to paraphrase. This ability, in turn, radically alters the character of the communicative process. In particular, communication is much more effective. The child begins to use paraphrase to correct or "repair"(Schegloff, pers. comm.) his own utterance.

(18)(T+D at 3;0, bedroom)
(T relating narrative)
T: ..I saw/ no/ Toby saw/ I saw one on road/
D: did you?/
T: yeah/

The child may paraphrase in anticipation of another's misunderstanding or in response to a request for clarification from another speaker.

A second manifestation of the emergence of semantic domains in discourse is the emergence of anaphoric pronouns. The use of a pronoun as a replacement for a noun form involves all the formal and semantic skills discussed in this paper. It requires that the child have competence in the formal operation of Substitution. And it requires that the child have a sense of semantic appropriateness.- that two or more lexical items are appropriate descriptions for some referent. As indicated in Table 1, the use of anaphoric pronouns increases dramatically from 2;9 to 3;0 and in many ways parallels the emergence of Substitution operations. Anaphora itself however was not necessarily manifest through the Substitution operation. Normally, anaphora was part of some formally novel utterance.

(19) (T+D at 2;11, bedroom)
(D shows battery to T)
D: see battery/
T: I see it/
D: you see it?

In the discourse observed, anaphora began to be employed regularly after Substitution operations were commonplace. Its appearance marks the move away from highly repetitious discourse.

FOOTNOTES

1. This research was supported by the Social Science Research Council, Grant No. HR 2941/1.

2. The child in sound play is constrained only by the phonological and morphological structure of his language without regard to meaning. In referential discourse, the child must contend with both.

3. The type of phenomenon apparent in (15) - (17) has been discussed by sociologists (Jefferson 1974, Sacks 1968, Schegloff, personal communication) for adult conversation.

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